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A CLINICAL LECTURE
ON
A CASE OF UNILATERAL (HEMIPLEGIC) SPASM AND CONTRACTURE WITHOUT PARALYSIS.

Delivered in the University of Edinburgh,

By Sir T. GRAINGER STEWART, M.D., LL.D.,

Professor of the Practice of Physic, Physician-in-Ordinary to the Queen for Scotland, and President of the British Medical Association.

I SHOW you three cases presenting considerable superficial resemblance. The first is an example of old-standing hemiplegia with descending degeneration and spasmodic contracture of the muscles of arm and leg. The second is a typical case of the cerebral palsy of childhood exhibiting along with a gree of paralysis very well-marked spasm of many muscles fering with the action of the limbs. And the third, the case ich is to be our special subject to-day, is a man suffering from lateral spasm, and at first sight closely resembling the hemiplegic patient, but really differing in most important particulars.

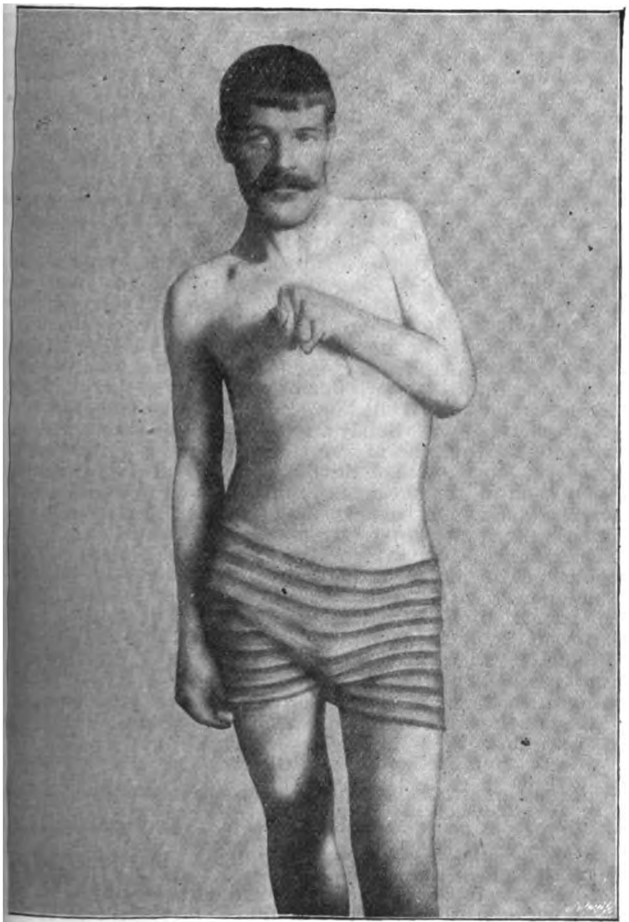

Fig. 1.—Showing general appearance and attitude of J. J. From a photograph by Dr. Dingwall Fordyce.

You observe that each of these cases exhibits the ordinary features of spasticity. You see the tense contraction of the affected muscles; you see how this has in some regions passed into a condition of contracture, with alteration of the muscular tissue and of the joints and even bones associated with them. You see how in each of the three the deep reflexes are exaggerated, although it is not easy to show this fact in some parts, in consequence of the state of contraction or contracture in which the muscles habitually are.

But when I proceed to test the motor power of these three patients, a great contrast emerges. With regard to the legs you notice that while all of them can stand, the hemiplegic walks only in a very awkward way, and is unable to run, while when he attempts to step up on a chair he signally fails. You will notice that the second patient stands well enough, but is rendered unsteady by the occasional spasms as well as by the deformity which the disease has caused in his foot, that he walks fairly, but is distinguished by many associated involuntary movements which attend it, that his running is so

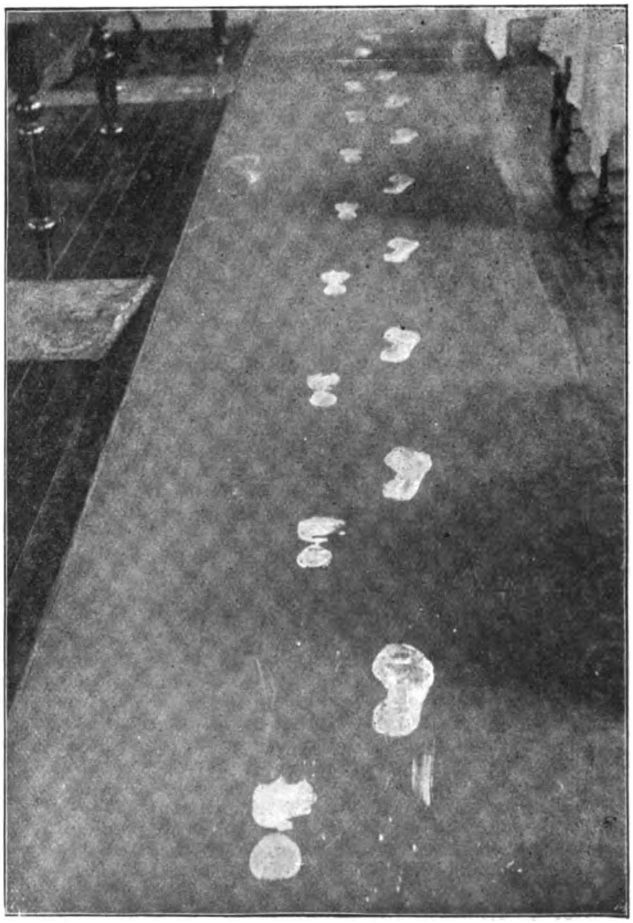

Fig. 2.—Showing impression of footprints of J. J. From a photograph by Dr. Dingwall Fordyce.

awkward as to be scarcely possible, and that it is with extreme difficulty if at all that he can manage a high step. But in the case of the third patient, you notice that notwithstanding the deformity of his left foot he stands as steadily as if on drill with his regiment, he walks quite well, though with a peculiar gait, and planting his left foot in a peculiar way, as the photograph taken by our usual method shows, but he runs better than he walks, showing no tendency to stumble, nor anything like the amount of disability one would expect. When I ask him to step on to this table he raises the foot of the affected side with little difficulty, and by the power of the leg alone steps up to this height of 3 feet.

Examination of the arms of the three patients brings out corresponding results, although the arms being more affected than the legs in all of them, they act much more imperfectly. You perceive that the hemiplegic patient can make no use of the hand at all, cannot extend the spasmodically bent fingers, can scarcely move the wrist, flex or extend the elbow-joint, or make much movement with the shoulder, while the infantile case, although more capable of purposive action, is much embarrassed in movement by the irregular spasmodic contractions of many muscles.

On the other hand the patient whom we are especially to study shows that although his hand is so spasmodically contracted as to be quite useless, he yet can in a measure move some of the fingers, while he definitely can make movements at the wrist, and his power of flexion and extension at the elbow, although hindered by the simultaneous action of opposing muscles, is yet so powerful as to rival the best efforts of the athletic student whom I have asked to endeavour to hinder the patient's movement. You see that notwithstanding the best the student can do the patient holds his own. And then as regards the shoulder-joint the patient can, though with difficulty against much opposition by the antagonistic muscles, raise his arm above his head.

With regard to the muscles of the face in the three patients, you will notice that in the hemiplegic they show some degree of paralysis, the two sides of the face moving therefore unequally. In the second case you will observe that spasmodic movements similar to those occurring elsewhere affect the muscles of both sides of the face, so that grimaces and contortions are commonly present. But in our special case of to-day you notice there is little difference between the two sides of the face, and it is only when we carefully compare the two halves of the tongue that the left is found slightly more voluminous than the right, and when we compare the facial muscles there seems to be a condition of hypertonicity on the left side, but I have had difficulty in making up my mind on this point.

This third case is thus really quite distinct from the others, and it is to be for the rest of our lecture our special subject of study. I shall first give you an account of the history and present condition of the patient, and then demonstrate certain points of special interest.

J. J., aged 25, soldier, and lately a miner, was admitted to the Royal Infirmary on November 4th, 1898, complaining of stiffness of the left arm and leg, which condition had lasted three years and a-half. His family history shows no unfavourable point. He was a healthy child, and originally began work underground when 12 years old. He continued that employment for six years, but at the age of 18 he enlisted. After two years' soldiering at home he was sent to India in 1894. On April 23rd, 1895, while serving in the Argyll and Sutherland Highlanders at Meean Meer, he took typhoid fever, and passed through a long and severe attack. He says he was unconscious for five or six weeks, and the Netley authorities, who have kindly favoured me with an extract from their notes and reports, say he was ninety-three days in hospital, and then transferred to Kasauli for change. He states that on recovering consciousness he found himself unable to bring together or to bend the fingers of his left hand, and that he dragged his left foot on attempting to walk.

Gradually the disability as to his fingers increased. They became strongly flexed, and his hand bent to the ulnar side. Then his wrist became flexed, and early in 1896 his arm had twisted round, so that his hand was behind his back, and he was quite unable to bring it forward. At the same time his toes gradually got more and more bent, the great toe upwards and the others downwards, especially the smallest toe, and so walking became painful and difficult, but he thinks that he had no real weakness in the leg. The army report states that in the course of his typhoid he had thrombosis of the right femoral vein, and lost power of extension in fingers of the the left hand, so that he was useless as a soldier. The illness was not aggravated by intemperance or other vice, or by misconduct.

The summary of causes of invaliding on being examined at Netley, December 18th, 1895, are stated as follows: "Much worse; has spastic contraction of fingers and wrist, left extremity, and all toes of left foot; cannot pronate or supinate left arm, or raise it above head; can flex elbow slowly; has no loss of sensation; is pale, but fairly well-nourished; the spleen but slightly enlarged; left leg smaller than right; vision good. Disability points to brain lesion; unfit for further service; invalided; will not be able to earn a livelihood."

He says that after leaving Netley he gradually became worse, and since I began to prepare this lecture I have ascertained that he was for a while in Glasgow Royal Infirmary under the care of Dr. Lindsay Steven, who published the case in the *Glasgow Medical Journal*. From that record I find that he was admitted on April 11th, 1896; the description of the arm and leg given by Dr. Lindsay Steven is as follows: "The fingers are flexed upon the palm of the hand more or less. They can passively and slightly, by voluntary effort, be extended within narrow limits. The thumb is turned outwards and flexed at the inter-phalangeal joint. Forcible extension of the fingers is accompanied by considerable pain, but the thumb is less painful in this respect. The wrist-joint is fixed, evidently largely by muscular spasm, and not by definite ankylosis. Movement of flexing the forearm on the arm is perfectly easily accomplished, but it is accompanied by considerable fine tremor of the whole arm. On attempting to raise the left arm above the head it becomes evident that there is little movement at the shoulder-joint. Most of the movement is accomplished by moving the arm and shoulder *en masse*, and, as a result, the range is much more limited than on the other side. There is no definite wasting of any of the arm muscles. The position of the thumb in relation to the other fingers is very noted. It is turned round in such a way that it rests upon the radial aspect of the first phalanx of the forefinger. As regards the foot, there is noted a spastic condition, evidently involving the extensors, so that the toes are all drawn well up upon the dorsum of the foot, the first phalanx in each case being drawn far back upon the metatarsal bone. The extensor tendons stand out like cords. Despite this, movement of the ankle-joint is fairly free, although rather jerky. The power of the muscles of the thigh, as tested by making and resisting movements of flexion and extension of the knee, is fairly good in both lower extremities, and no appreciable difference is made out between the two sides. Sensation is tested in both upper and lower extremities, and found to be normal. The reflexes (tendon) in the left upper extremity are abolished, in the right normal. The superficial abdominal and cremasteric reflexes on the right side are easily elicited; the former can be faintly brought out on the left side, but the latter on the left side cannot be elicited. The knee reflex is distinctly exaggerated on the left side, and ankle clonus is very marked, while on the right side the knee reflex is normal, and there is no ankle clonus. There is no facial paralysis, but there is a fine tremor of the eyelids of each side when they are closed.

The right calf, 5 inches below patella, measures 14 inches, the left 12¾ inches.

Girth of wrist just above styloid process (narrowest part of forearm), 6⅝ inches on both sides.

Three inches below external condyle of humerus. right side 9¾ inches, left side 9½ inches.

At deltoid insertion, on right side 9¾ inches, on left side 9¼ inches.

At mid-upper arm. right side 10¼ inches, left side 10½ inches."

From this report it is clear, as will be seen when we complete our own examination, the state of matters was in April, 1896, substantially the same as it is now.

We have further ascertained that the patient has twice been in Stirling District Asylum at Larbert suffering from mania. He was there from July 11th, 1896, till March 13th, 1897, and from June 15th, 1897, till February 12th, 1898.

Dr. McPherson, the medical superintendent, and Dr. McGilchrist, the assistant physician to the institution, have kindly favoured me with notes of their observations as recorded in the case books of the institution: "Patient is an alcoholic. State on admission: Upper limb flexed at every joint, and forearm pronated; fingers flexed at metacarpo-phalangeal joints; toes of left foot distorted, and left leg weak, kept stiff, and dragged after him in walking; toes appear flexed on themselves, but (especially the great toe) over-extended at proximal joint. There does not appear to be any atrophy of muscles in either limb; sensation is undisturbed; any attempt to straighten the arm appeared to be consciously resisted, in fact the more it was tried the more exaggerated became the flexion; reflexes are exaggerated on left side. Progress, August 1st, 1896: No change in arm or leg; he has never been observed to straighten out the arm; the contraction is not diminished during sleep; he complains much of pain in wrist, especially when, as at times it happens, the contraction is increased. There are many things about him which suggest hysteria. September 20th: An attendant says he saw him stretch out his arm when, as patient thought, no one was looking. There is still no sign of atrophy. He has been treated with faradism for three or four weeks without any improvement. Six attempts were made with hypnotic treatment but without effect. December 1st: Only change is appearance of atrophy of affected parts, probably from disuse. January 4th: Under chloroform flexion and pronation disappeared, and arm could be freely moved into any position. The only remaining trace was that the fingers, though relaxed, could not be straightened at metacarpo-phalangeal joints. The first sign of returning consciousness was a reappearance of flexion and pronation. Veins in left arm and leg were more apparent than on right side and more distended. During his second stay in this asylum his physical condition was much the same as above."

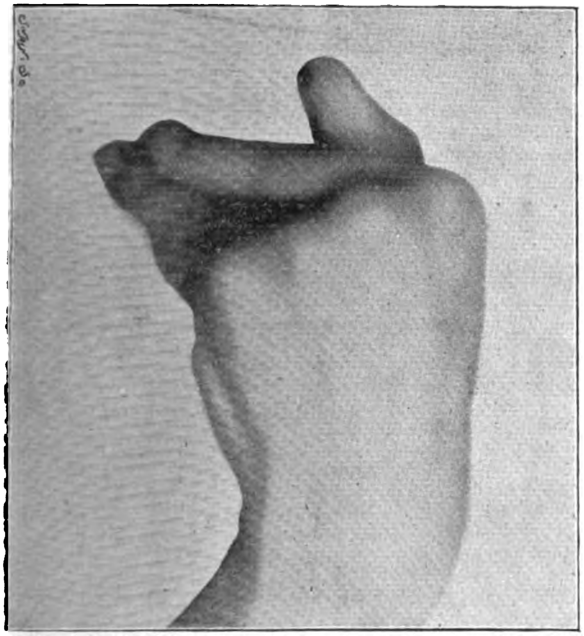

Fig. 3.—Showing usual position of fingers, hand and wrist. From a photograph by Dr. Dingwall Fordyce.

Dr. McPherson writes: "After careful consideration of the symptoms, I came to the conclusion that they were due to hysteria and not to toxic action upon the cells of the cord. No doubt the typhoid fever occurring in a neurotic and predisposed subject, probably also an alcoholic subject, may have been the starting point of the neurosis. The patient was sent here on both occasions labouring under mania, with mild intellectual excitement and exaltation, and complete absence of the moral sense and general mental instability, which I suspect is congenital. I failed to discover any cerebral or cortical lesion, while the absence of atrophy and the disseminating character of the contractures appeared to me inconsistent with degeneration of the spinal ganglia either anterior or posterior. I therefore looked upon the case as a functional neurosis. Of course, by this time organic changes in the nerve centres involved may probably have occurred." We shall return to these observations and that expression of opinion when we discuss the nature of the process.

His medical history is thus unusually complete, for he left the asylum in February of the present year and came under my care in November. He says that notwithstanding his disability he has been able to work occasionally as a miner. On his admission, we found him a robust-looking young man weighing 11 st. 6½ lbs; his height was 5 ft. 8 in. He presented the appearance of a patient suffering from hemiplegia with post-hemiplegic spasticity.

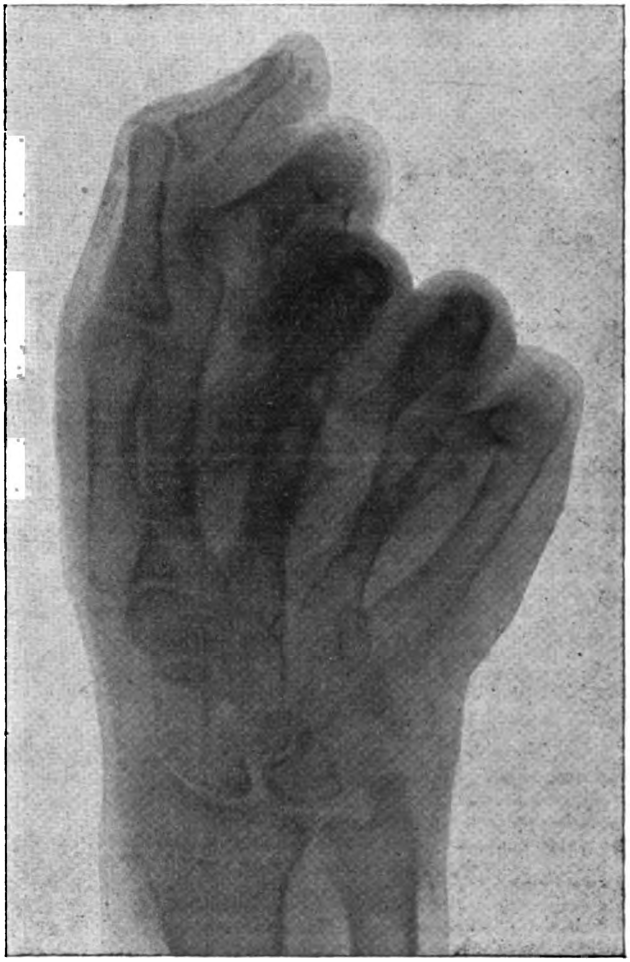

Fig. 4.—Skiagraph of hand showing outline of hand and wrist with position of bones. Taken by Dr. Dawson Turner.

On examination we found all the systems, except the nervous and the locomotory, quite healthy. On detailed examination of the nervous system the sensory functions were found normal. It is true that he complained a good deal of pain, but this was due to cramp-like contractions of his muscles. The testing as to all kinds of sensory impressions gave normal results; his field of vision was normal, as was also his colour perception. The ophthalmoscope revealed a normal fundus. With regard to motor functions, the organic reflexes were normal; the skin reflexes, and especially the plantar, were exaggerated, the epigastric and abdominal were difficult to elicit on the left side, apparently because of the muscular rigidity. The deep reflexes were difficult to elicit, owing to the habitual condition of the muscles, but it was clear that the knee-jerks on both sides were exaggerated, though in a different manner, being sharper in the right and stronger in the left, and there seemed to be occasionally a tendency to ankle clonus on the left side, although for the most part attempts to evolve it produced no response and it was rather a pseudo-clonus than a true one. No reflex could be obtained in the arm owing to the spastic rigidity. With regard to voluntary movement, when asked to wrinkle his brow the right side moved much more than the left, and was more elevated. When making a forced inspiration the muscles on the right side of the nose act strongly, while there is sinking in on the left side. There is no marked difference between the sides when the patient is told to close the eyes firmly. The tongue, when protruded, deviates slightly to the right, and the left half is seen and felt to be rather more voluminous. The left half of the face also appears slightly fuller than the right. Dilatation of the left pupil is occasionally observed. The movements of the eyes are normal.

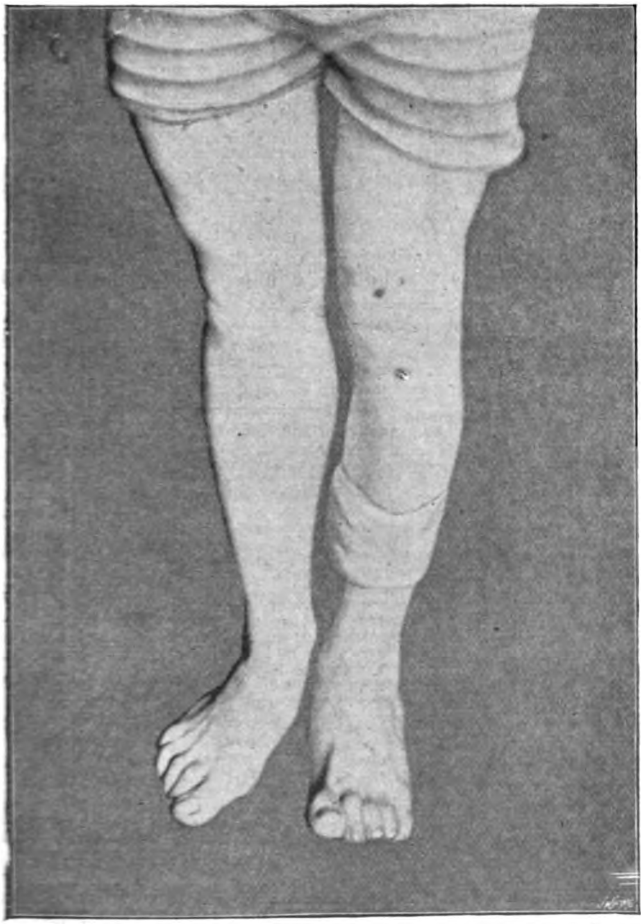

Fig. 5.—Showing the contrasted condition of the toes of each foot. From a photograph by Dr. Dingwall Fordyce.

When clinching the teeth tightly and opening the lips the right side of the mouth opens up more widely, the left side appearing not paralysed but stiff. The patient is unable to shrug the left shoulder, the shoulders being in a constant state of extreme shrug, and can make only very slight movement at the shoulder-joint, the whole shoulder girdle for the most part acting as one, and the muscles being almost constantly rigid. The left sterno-mastoid is larger than the right. The upper part of the trapezius is sometimes lax, usually spasmodically contracted. The same is true of the deltoid. In both of them the contraction is so strong that voluntary effort seems to have no effect. The biceps and triceps are always more or less rigid, but can be made to contract further at will, still the antagonistic action prevents free movements. He is unable to touch his left shoulder with his left hand, and can get no nearer than his chin. After some time, and considerable exertion, he is able to straighten his arm, but cannot supinate his hand. He has power of movement in his thumb and slight power in the fingers. The hand is kept twisted to the ulnar side. Movements in the leg are comparatively good except in the toes, especially the small toe, which is constantly kept flexed. The great toe is bent upwards almost to a right angle at the metatarso-phalangeal joint, while at the interphalangeal joint it is flexed to an obtuse angle. A reference to the skiagraph shows the direction in which the distal phalanges are distorted. Measurements show the right arm at insertion of deltoid 11 in., left 10½ in. Right over centre of biceps 11 in., left 10¾ in. Right forearm 11¼ in., left 10 in. Right wrist 7 in., left 6¾ in. Leg: right ankle 9¼ in., left 8½ in; right calf 15 in., left 12¾ in.; right thigh 21 in., left 20 in. The left or affected side is thus smaller than the right, although its muscles are constantly contracted and their consistence distinctly firmer.

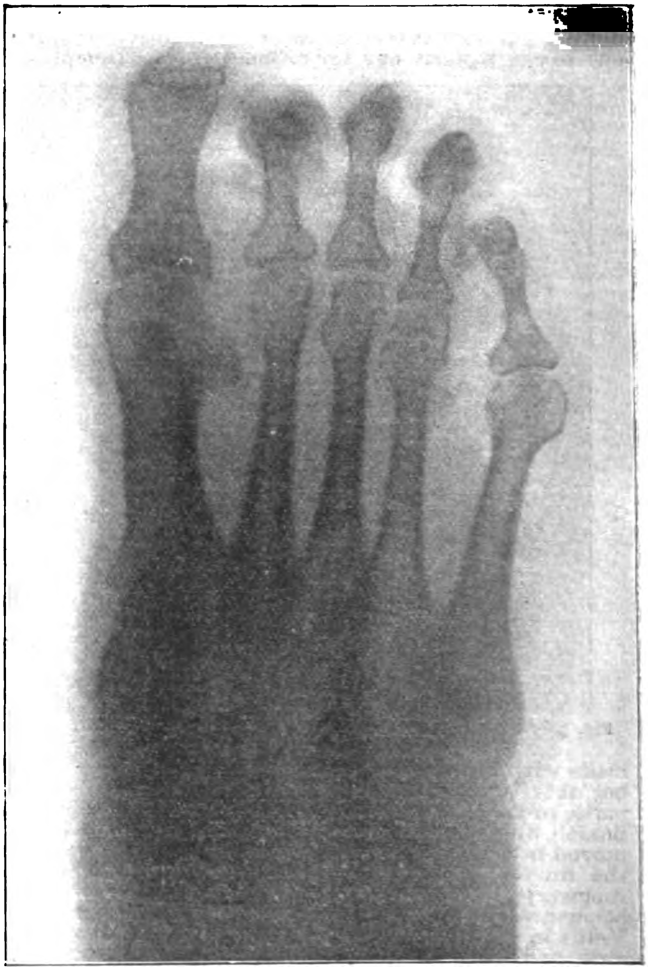

Fig. 6.—Skiagraph of left foot showing the position of the phalanges of the toes. Taken by Dr. Dawson Turner.

With regard to the motor functions, I wish to insist on the fact that his disability is mainly or indeed exclusively due to a contraction of the opposing groups of muscles occurring when he seeks to bring any particular muscle or group of muscles into play—as, for example, when he wishes to flex his arm the biceps acts readily, but the triceps also follows suit and hinders the work of its antagonist. Secondly, it is worthy of note that on sudden or rapid action the antagonists do not come into play quickly enough to tell, and so he runs better than he walks, and even with the arm makes a sudden movement better than a slow one. (As is implied in what has been already said, co-ordination shows no deficiency.)

The condition of the electrical reactions was carefully studied by Dr. Alex. Bruce and myself; but we thought it well to get a special report from Dr. Milne Murray, the accomplished electrician to the Royal Infirmary, and his report is as follows:

Motor Points.	Galvanic.				Faradic.	
	KCC	ACC	AOC	KOC	Coil.	Ratio.
1 Flexor carpi radialis, right ...	0.5	1.4	9.0	—	135	4
2 " " " left ...	6.5	6.0	14.0	—	90	9
3 Peronei right ...	1.0	1.3	2.9	—	115	10
4 " left ...	1.0	5.0	4.0	—	110	13

Test No. 1 gives nearly normal reactions, except that KCC comes rather early, while ACC is considerably deferred. Faradic excitability is nearly normal.

Test No. 2 shows great lowering of the galvanic excitability, especially in KCC. This requires about twelve times as much as in the right side, while ACC requires 4⅓ times and AOC 1½ times as much as on the right side. The faradic excitability is also considerably reduced, the minimal contraction requiring 2½ times as much as on the right side.

Test No. 3 (lower limb) gives a normal reaction both to galvanic and faradic stimuli.

Test No. 4 gives a normal KCC, while ACC and AOC approach each other, the latter slightly preceding the other. The faradic excitability is depressed as compared with the right side, in the ratio of 10 to 13.

The result of the examination shows great lowering of the galvanic and faradic excitability in the left upper limb and a smaller lowering in the left lower limb. The character of the response on the left side is not in any way abnormal. There is none of the "laziness" of contraction so often seen in certain stages of the reaction of degeneration.

Now if you refer to the table on the board you will see in the three columns into which it is divided, first, the normal relations of the faradic and galvanic current to healthy muscle and nerve; secondly, the conditions found by Dr. M. Murray in case of J. J.; thirdly, the conditions of reaction of degeneration.

	Normal.	J J. (Affected Side).		Reaction of Degeneration.
Faradic:	Reaction readily obtained	Excitability diminished especially in arm		Reaction greatly diminished.
Galvanic:	Reaction prompt and sharp	No laziness in contraction		Reaction lazy, sluggish, and prolonged.
		Arm.	Leg.	
Appearance of contraction:	1. KCC	1 & 2. KCC and ACC (practically simultaneous)	1. KCC	1. ACC
	2. ACC		2 AOC	2. KCC
	3. AOC	3. AOC	3. ACC	3. KOC
	4. KOC	4. KOC	4. KOC	4. AOC

The condition thus bears no resemblance to the reaction of degeneration. With regard to vasomotor and trophic functions, the only point to be noted is that not only does the left leg measure less in circumference than the right, which might be explained by the old thrombosis, but the left arm also measures less than the right one, notwithstanding the fact that its muscles are generally in a state of violent contraction, and are so vigorous. The measurements taken in Glasgow compared with those we made here are as follows:

	Glasgow Infirmary.	Edinburgh Infirmary.
Right calf	14	15
Left calf...	12¾	12¾
Girth of wrist just above styloid process—right ...	6⅝	7
" " —left......	6⅜	6¾
At deltoid insertion—right	9⅞	11
" " —left	9¼	10½

Comparing these measurements, we find that the girth has increased on both sides during the past two years and a-half; that the left or affected side is smaller than the right; and that the growth on the left side has been less than that of the right at all points measured excepting one—namely, the insertion of the deltoid.

These differences appear to imply a trophic change in the muscles of the left half of the body, and the appearance of a distinct degree of increased growth on both sides since he was examined in Glasgow. The shortening of the muscles, and the changes in joints and bones which the skiagraphs reveal appear to be secondary results of the long-standing spasm rather than of neurotrophic origin.

The cerebro-mental functions are at present natural, as are also both the spine and the cranium.

It is necessary to restate the facts of the case in brief form:

A soldier, aged 25, had severe typhoid in India; on recovering from coma, found himself unable to use his left hand on account of stiffness of the fingers. Gradually they became flexed, and the arm, foot, leg, and left side of face became rigid with constant hypertonicity and frequent tonic spasms. This condition makes him resemble a case of hemiplegia with descending sclerosis, but there is no paralysis, and all the muscular disability is due to antagonistic action of opposing muscles. Otherwise at present no abnormality of any system or of the nervous system in any respect, except the unilateral spasm. The locomotory system is interfered with only in so far as the spasm, the contracture, and the consequent changes in joints and bones are concerned. He has, since his illness began, had two attacks of mania.

It should be particularly noticed, as to the state of the muscles, that the deep reflexes are exaggerated, and that, although the electric relations differ in the two sides of the body, there is no trace of the reaction of degeneration.

(To be continued).

ON THE ORGANISATION OF LABORATORIES IN HOSPITALS.

BY PROFESSOR DR. CARL VON NOORDEN,
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IF we cast a glance back over the scientific literature of medicine we shall see that a remarkable change has come about in the last decades. Only the literature which is concerned with clinical description has retained its ancient character; this will always be the case, since the varieties of the pathologic-clinical processes are inexhaustible. There will always present themselves to the attentive observer at the bedside novel phenomena which broaden our knowledge of diseases, and are full of importance in diagnosis.

If, however, we look beyond the records of symptoms, we are struck by the fact that the subjects to which our scientific investigations are directed have become altogether different. The journals and periodicals of the seventh and eighth decade of this century are filled with contributions on physical diagnosis, especially on the employment in diagnosis of auscultation and percussion. He who came to the study of his patients with acute senses and good powers of observation could at that time count upon making new discoveries and rendering important services to scientific diagnosis. Physical diagnosis in the narrower sense of the term was rendered complete down to its finest details upon the basis of the comparison of clinical phenomena with the results of *post-mortem* examination; what later years have added is very little. Beyond the pleximeter hammer and the stethoscope, the thermometer, the as yet imperfect microscope, and in rare cases the sphygmograph, were almost alone of service to the practitioner of medicine. A place of great importance was assigned to the thermometer. The investigations and discussions upon thermometry, on the course of febrile diseases, and on the therapeutic means of influencing the course of fever were scarcely less numerous and important than those on percussion and auscultation. At a later date and more slowly the microscope attained to a position of general importance in scientific work at the bedside. Clinical microscopy down to the end of the eighth decade made only a few noteworthy advances after its earlier important discoveries in the morphology of the urine, the blood, the sputum, and the fæces had been achieved. The microscope did more for the investigation of *post-mortem* material. It is very noteworthy and very instructive to observe that towards the end of the eighth decade, and also at a later date, numerous clinical observers in all countries devoted their scientific labour to the field of pathological and especially of microscopical anatomy. It was like an invasion into a foreign territory. When diseased organs were submitted to accurate microscopical examination, when anatomical changes were described down to the minutest details, and when experiments on animals were performed in addition, work was done which appertained rather to the anatomist than to the clinician. The consequence of this tendency was that for a young practitioner who desired to obtain a post as assistant in a clinical department there was no better recommendation than that he had occupied himself for some time in pathological anatomy—not only with naked-eye anatomy, which nevertheless is undoubtedly of great importance to every practitioner, but it was also desired, and, indeed, required that he should be able to make detailed investigations into the minutest microscopical anatomy.

We must, indeed, admit that during that period a great quantity of admirable and important work was produced by clinical professors, by assistants in clinical schools; and by other young practitioners who worked in the clinics, nevertheless we must note that this kind of work was along a wrong road, which led scientific clinical work away from its true function. It was a dangerous, false track, for it usurped the time and thought which the clinical observer should devote to the pathological processes of the living human being. The cause of this invasion of the territory of the anatomist by the clinical observers lie near at hand. Observation at the bedside had exhausted nearly all the methods at that time available; there was no more valuable fruit to be gathered either for diagnosis or for treatment through clinical work. Diagnosis and symptomatology thirsted after new ways of gaining knowledge; the therapeutics of the diseases which fall within the domain of medicine followed the old and oft-trodden road, and when contrasted with the gigantic achievements of modern antiseptic surgery gave rise to the same feeling of despair as in the days of Skoda. Thus the desire to work on scientific lines drove men into the foreign territory of pathological anatomy. It is a very noteworthy fact that in the many countries where the more recent auxiliaries of modern clinical work in hospitals are not available, the best investigations which issue from the clinical institutes still deal with pathological anatomy and histology; while in Germany, France, and Italy at the present day important work of this kind is undertaken by clinical teachers or their assistants only in very rare instances. Neurology alone affords an exception; the best investigations within its domain whether undertaken by clinical observers or by anatomists are concerned with microscopical pathology. This is due to the way in which neurology has during the last two decades grown to be a special study. I entertain the strongest doubts whether this direction which neurology has taken is the right one.

At the period to which we went back at the beginning of this article clinical chemistry was still in long clothes. Although some important discoveries were made in the field of the pathology of metabolism, yet the practitioners could be counted on the fingers who knew more about clinical chemistry than how to look for albumen and sugar in the urine. The poverty of the researches were in sharp contrast with the mighty strides which physiological chemistry and the study of metabolism had made in those days. It is true that some valuable observations on the pathology of the urine have come down to us from those days, but they were rather solitary unconnected observations than systematic studies. Still the new methods of studying metabolic changes quantitatively were employed at the bedside by some investigators, although few works of fundamental importance were published, these few works were all the production of German clinical teachers. What was done, however, showed that investigations in clinical chemistry promised to be extremely fruitful. Thus it is that we see that at the end of the eighth and the beginning of the ninth decade a large number of young and ambitious medical men began to give serious attention to chemical studies and to look upon them as affording an important preparation for scientific work at the bedside, with what success is made plain by the many men who began their scientific career at that time whose names are now famous. Since that epoch the share of the clinical physician in chemical investigations has increased year by year. A large amount of original work of fundamental importance has been done by pathologists who have been equally accomplished as practitioners at the bedside and as experimenters in the laboratory.

The study of the chemical changes in the blood, and in the secretions and excretions, has grown ever more important and more rich in results, affording means for an understanding of the diseased processes which occur in the body. Every piece of knowledge gained afforded a suggestion for new researches. Most of these investigations into the pathological constitution of the blood in pathological states (proportion of water, quantity and nature of the proteids; hæmoglobin and its modifications, salts, acids, alkaloids, specific gravity, sugar, etc.), and into the chemistry of pathological urine (proportion of nitrogenous constituents, uric acid, alloxur bases, proportion of ammonia, rare nitrogenous bodies, and various forms of albuminous bodies and of carbohydrates, the proportion of salts, the excretion of aromatic substances, and of urinary pigment, etc.) could have been carried out by no one except hospital probationers well equipped chemically. The chemist, without this close contact with clinical practice, and without an acquaintance with pathological occurrences, could never have advanced our knowledge so far. This is still more clear in regard to investigations relating to metabolism, the immense importance of which in deepening our knowledge of pathology is very apparent, and is more appreciated every day. The study of metabolism was, as it were, born in the physiological laboratory. It was there that the foundations on which we all stand to-day were laid by many experiments on animals and by some few on man. But these physiological inquiries were not sufficient for the needs of clinical medicine. We are indebted far more largely to assiduous work at the bedside during the last two decennia for the accumulated knowledge which has been gained of the pathology of metabolism, and for the foundations on which modern rational dietetic treatment rests. I will mention here only some of those important researches: The assimilation of proteids; oxidation and assimilation in fever; nutritional conditions in diabetes mellitus; the relation between proteid assimilation and fat destruction in obesity cures; the relative excretion of uric acid in health, in gout, and in other diseases under various kinds of diet; the secretion of hydrochloric acid in the stomach and its influence on digestion; the assimilation of food, especially of the various forms of proteid and fat in gastric and intestinal diseases; the assimilation of food after the complete or partial occlusion of the bile duct and pancreatic duct; the influence of a diet rich in proteids and of one poor in proteids on diseases of the kidney, especially in the degree of albuminuria; the influence of anæmia on the total proteid assimilation and on the oxidation processes, and on the absorption of nitrogen; the amount of food necessary for the sick in comparison with that required by the sound.

I have here referred only to a few selected examples of the important subjects with which the study of metabolism has been concerned during recent years. The reader who wishes to convince himself that these researches possess not merely a theoretical interest, but have exercised also a very great influence on the growth of modern therapeutics should consult the new *Handbook of Dietetic Therapeutics* which is now in course of publication by E. von Leyden with the co-operation of numerous investigators. On every page he will find proof of the dependence of therapeutics on the researches in metabolism carried out during the last two decades. No one who reads this book can fail to receive the impression that through the careful study of the pathology of metabolism, through the investigations of metabolic exchanges by various methods, medical treatment has been very greatly advanced, and has reached a position which is no longer inferior to that to which its brilliant achievements have raised surgical treatment. Contemporaneous with the development of clinical chemistry was the triumphal appearance of clinical bacteriology. It is scarcely fifteen years since bacteriology attained to a position of importance in clinical medicine owing to Robert Koch's discovery of the tubercle bacillus. Within a few years bacteriology became of quite unanticipated importance in diagnosis. It brought about a complete change in our conception of very many pathological processes. It became a sure guide in the etiological differentiation of disease, whereas previously differentiation by symptoms alone had had a prominent place. In the gigantic work which was done, work which embraced every part of medicine, all countries and all hospitals took an assiduous part. We did not altogether escape mistakes; they were inevitable. But on the whole scientific medicine can look back with justifiable pride on the victories won by clinical bacteriology. From its first beginnings and throughout the whole course of its development down to the present day bacteriology has had the good fortune to be able to rely confidently on clinical medicine. The great results which have been attained have been reached through combined work done simultaneously at the bedside and in the laboratory. The bacteriologists were clinical physicians, and the clinical physicians were bacteriologists. Only in this way could such rapid developmnt have taken place as has been effected in the etiological and therapeutic study of tuberculosis, of cholera, of rabies, of diphtheria, of septic diseases, etc. Whatever might be the direction in which the great pioneers of bacteriology succeeded in making a new discovery clinical institutions always at once co-operated in the work. Bacteriological diagnosis, etiological inquiry, the study of immunity, of immunisation, and of serumtherapeutics could never have attained so quickly to their present far-reaching importance had not all clnical institutes, large and small, been most readily provided with the means of taking part in the great work common to them all. In spite of the great results already achieved we are still, unless we are all mistaken, only at the beginning of an immense undertaking which is to be accomplished by theoretical research and practical medicine working together in close alliance.

The development which scientific medicine has undergone in recent years has imposed on hospitals duties which are entirely new. All the larger hospitals, and not those only which undertake to teach medical students and young practitioners, are under the obligation to co-operate in the further development of medical science. If to-day progress in scientific medicine is to be continued, medical men who are called to such work, that is to say, all hospital physicians, must have at their disposal the full equipment necessary for modern scientific investigation.

That it is the duty of the members of the medical staff of all hospitals to advance science and to incite the younger members of the profession to undertake scientific inquiries is self-evident, and does not call for further argument. To circumscribe the opportunities for work in medical teaching institutions, and to give instruction only in those ancillary methods which were found sufficient in past times, would be a crime against science which would be bitterly revenged in future generations.

But the justice of this claim seems to be equally self-evident in the case of these hospitals which are not teaching institutions, inasmuch as it is required of the medical staff of such hospitals that in every respect they should rise to the height of their science, and that in their practice, both in matters of diagnosis and of treatment, they should give the best which is possible in the existing state of the medical art. In order that they may do this and afford to their patients the service we have the right to required from them, they must have the opportunity of bringing to he bedside all the means of assistance provided by modern science. We do not demand from the medical officers of these hospitals independent original researches, but we do demand that they should be able to make the discoveries of others available in the fullest measure for their patients. We do demand of them a living contact with the progress of their profession. So soon as an advance has really been made in clinical chemistry, bacteriology, and microscopy, the fact must be taken into account, and every hospital should take care that the necessary auxiliary means are supplied. It is useless to raise opposition to this. Those hospitals which fail to recognise the new needs and their medical officers likewise stand still, and where things are at a standstill there is always in scientific matters backsliding. Where the access to the sick-bed of our flourishing clinical medical science is hindered, there, in spite of all book learning, an understanding of the achievements of pathology, diagnosis, and therapeutics which we owe to the auxiliary sciences will also be wanting.

Medical men must recognise with thankfulness that the State and municipal authorities, and the governing bodies of smaller institutions, have already to a large extent taken cognisance of the modern progress of medicine, and have done much to provide a better equipment of scientific appliances for hospitals. If we who are medical men would count upon further advances, we must have a clear understanding as to the scope of the provision necessary to be made, and we must indicate what arrangements have proved themselves to be the best. I believe that I am in a position to express an opinion on this point because I have made myself acquainted with the organisation of most of the large municipal and State hospitals in Germany, and with no small number of those in Austria, England, and Italy.

In the first place I would utter a warning against making exaggerated demands. I have laid down the principle that as a rule hospitals should only be provided with means for undertaking such investigations as have a direct connection with clinical questions. All investigations which do not present this connection can be relegated without loss to other special scientific institutes.

The following organisation is sufficient:

I.—An Institute for Pathological Anatomy.

A special prosector should be appointed to the institute, whose duty it would be to make all *post-mortem* examinations for the various departments of the hospital, and to carry through microscopical and bacteriological investigations desired to the ward physicians. Material obtained from the living patient by operation (tumours, etc.) will be handed handed over to the prosector for examination and report. In large hospitals the prosector would be assigned one or two assistants, since he will not be in a position adequately to meet all the demands on him. The position of the prosector should be such that he is not made subordinate to the members of the medical staff in charge of wards, but is responsible as they are to the governing body of the institution. His salary must be sufficient to enable him to abstain from private practice. In Germany at municipal hospitals, which are not designed to be teaching institutions, such as the Moabit, Friedrichshain, and Urban Hospitals in Berlin, and the hospitals of Brunswick, Hamburg, and Chemnitz the prosector receives a salary of from 3,000 to 5,000 marks (£150 to £250). Further, the prosectors have the right to perform *post-mortem* examinations outside the hospital for medical practitioners in the town. By the fees which the prosector thus receives his receipts are increased by several thousand marks a year. On the other hand, the prosector is forbidden absolutely to engage in private practice. The whole arrangement has proved itself to work well, and several large towns in Germany intend to follow this example. Under the circumstances described it is easy, as experience proves, to find good men for these positions who possess the high scientific qualities necessary, and render to the hospitals much better services than when the necropsies were performed by the young hospital assistants.

There are advantages in this arrangement for the medical practitioners of the town, since they have always a specialist in pathological anatomy with whom they can consult, and since the opportunity is afforded to them of gathering further knowledge from the courses of demonstrations which the prosector may hold.

In the pathological institute of the hospital there should be room enough to allow the medical staff of the hospital, especially the younger members, to have the opportunity of engaging in histological investigations and to examine anatomico-pathological material in which they may be interested under the responsible guidance of the prosector. Where possible there should be room enough to afford working places for a few practitioners of the town who may be interested in microscopical investigations.

II.—THE BACTERIOLOGICAL LABORATORY.

The bacteriological laboratory should be in structural and organic connection with the anatomical institute. It likewise should be under the direction of the prosector, who in large hospitals should have the aid of special assistants. It would be the duty of the prosector and his bacteriological assistants to carry out all the bacteriological inquiries desired by the staff of the medical, surgical, and gynæcological departments, and thus to give important aid in etiological diagnosis and in therapeutics. The laboratory must contain adequate provision for carrying out the various methods of cultivation employed in bacteriology and for conducting the more important experiments on animals necessary for bacteriological diagnosis. Two or three rooms and a few hutches for small animals suffice. It is not in my opinion necessary in ordinary hospitals to go beyond this, and to make arrangements for serum experiments, for studies in immunity, and for extensive investigations in disinfection. The methods necessary for such inquiries are now so complicated that they presuppose a special establishment. It is therefore better to establish for difficult investigation of this kind special centres, as has been done in Berlin in the Institute for Infectious Disease, and as is about to be done at the municipal hospital in Frankfort-on-Main. Under an agreement made between the State and the municipality the German Reichs-Institut für Serumforschung und Serumtherapie will be connected with this hospital.

In many towns the plan has been tried of permitting the director of the anatomico-bacteriological institute to undertake bacteriological investigations for medical men practising in the town. In practice advantage is taken of this arrangement mainly for the identification of the bacillus of tubercle and the bacillus of diphtheria, and occasionally for the serum diagnosis of typhoid fever.

No rule of general application can be laid down as to the limit of the work which should fall to the prosector. It would be very wrong to throw upon him every task which comes within the range of histology and bacteriology. Now, as formerly, a large part of this kind of work should be done by the ward physician. To this category belong the ordinary microscopical examination of sputum (including examination for tubercle bacilli), the microscopical examination of urine, fæces, blood, etc. These matters have so direct a connection with clinical medicine that they should always be undertaken by the physician who is treating the case. In my experience it is much better that these investigations especially should not be carried on in the rooms of the anatomico-bacteriological institute. Several small rooms in the immediate neighbourhood of each ward should be provided for this purpose. This is a much better arrangement than that every urine glass and sputum vessel should have to be taken to a distant building for the examination of its contents. The facilities provided by the institute should, however, at once be made use of when difficult and lengthy investigations have to be made, as, for example, the identification and cultivation of micro-organisms in the sputum, urine, fæces, nasal, vaginal, and urethral secretions, blood, pus, skin, etc.

III.—CLINICAL CHEMISTRY.

Clinical chemistry stands in a different position with regard to the anatomico-bacteriological institute. Extended chemical investigations for which much apparatus is necessary have hitherto been limited to the domain of medicine proper. My own opinion is that this is a mistake, and that in the domains of surgery, obstetrics, and dermatology many treasures are to be unearthed by chemical inquiries. But for the moment we must look at the facts as they are, and we must regard it as useless to provide extensive chemical laboratories for these divisions of medicine before those who follow them have begun to display a greater interest and a greater knowledge of the metabolism of the organism. Whereas the anatomico-bacteriological institute ought to be associated in an equal degree with all special departments of the hospital, this is not the case with the chemical laboratory. In consequence it is best to place it under the direction of the chief physicians of the medical wards. This arrangement has already been adopted in Germany in all the university clinics, and in most of the large municipal hospitals, and has worked very well. A very large number of valuable articles on the chemistry of the fluids of the tissues, on secretion, and on excretion, and important contributions on the pathology of metabolism and the therapeutic methods of influencing the metabolic exchanges have during the last two decennia issued from such chemical laboratories established in connection with the medical departments.

The question may be raised whether it might not be advantageous to give to the chemical laboratory, as to the anatomical institute, a special director who, like the physicians of the hospital, would occupy an independent position. I consider that this is only necessary in the largest hospitals where several independent medical departments exist together. The appointment as director of a chemist or of a physician who has made a speciality of physiological chemistry lays us open to the danger that the work undertaken in the laboratory may lose its connection with clinical medicine, and assume a purely chemical character. For such work, however, no clinical laboratory is needed, since the university laboratories for chemistry and physiological chemistry exist for this purpose. The clinical laboratory should only supply the means of bringing to bear the achievements of practical chemistry and the discoveries of physiological chemistry at the bedside for diagnostic purposes and for the advancement of the pathology of metabolism. This, of course, does not forbid that work done in the clinical laboratory may on occasion concern itself with questions of pure analytical and synthetical chemistry, but whenever the appliances of the laboratory do not suffice for these special studies the investigator must continue his work in another institution dedicated to pure chemistry.

The organisation necessary for a laboratory for clinical purposes is neither very extensive nor very costly. Two workrooms corresponding in size to the number of the physicians working in the laboratory will suffice. In addition, there should be a room for weighing and for delicate physical instruments (polarisers, spectroscopes, etc.). Finally, there should be a scullery. If investigations requiring gas analyses are to be undertaken (estimation of oxygen exchange, of CO_2 production, of blood gases, etc.), an additional room will be necessary. I may state, as affording some estimate of the cost, that the complete and very extensive installation of the chemical laboratory of the municipal hospital at Frankfort-on-Main cost 7,000 marks. In this sum is included the exceptionally serious expense of a Geppert-Zuntz respiration apparatus.

As in the case of the anatomico-bacteriological institute the chemical laboratory should be relieved from undertaking the continually-recurring smaller investigations in clinical chemistry. It would be out of place, and a great hindrance to the work were every urine which had to be examined for albumen, sugar, urobilin, indican, bile pigments, etc., at once taken to the laboratory. These every-day qualitative examinations should rather be made in the ward or in an adjoining room. The material should be taken to the laboratory only when quantitative investigations are necessary: or when special exactitude or extensive preparations are required to obtain the qualitative reactions.

Obviously, in hospitals where unlimited funds are available we may go very much beyond the skeleton organisation here described, and provide in connection with it large and magnificent institutes for histology, bacteriology, and chemistry. But these will be rare exceptions, and will only find their justification when the hospitals are concerned with the noble and important task of medical education. What is necessary in this case I need not here describe, because there is no difference of opinion upon the matter. The object of this short article is rather to state the extent to which every large general hospital must find a place for the modern sciences every day growing in importance, which are ancillary to clinical medicine. I have intentionally not made its scope wider than is absolutely necessary. If, avoiding exaggerated demands, account be taken of what is really necessary within the limits I have here set, the scientific education of many practitioners of medicine will be advanced, their living contact with all advances of science will be facilitated, the whole science of medicine will be advantaged, and the sick will be benefited. It must not be contended that by establishing such laboratories hospital physicians will be turned away from the essential business of hospitals, which is the treatment of the sick. Experience proves that this is not the case; the new organisations, especially when they are closely united to the hospital, afford them rather the opportunity of bringing to the service of their patients new means of cure.

ON THE CAUSE OF SO-CALLED PHOSPHORUS NECROSIS OF THE JAW IN MATCH-WORKERS.

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Historical Summary.

Phosphorus was first used in the manufacture of matches in 1833 at Vienna. Shortly after its introduction, and ever since, cases of necrosis of the bones of the upper and lower jaws have occurred among the workpeople employed in match factories. The condition was first described by Lorimer, who, between the years 1839 and 1845, saw 9 cases in Vienna, but immediately after cases were also reported in Nürnberg, Strassburg, Berlin, Lyons, Paris, Manchester, and London as having occurred among the workers in match factories. Improvements in ventilation and in manufacturing machinery have greatly diminished its frequency, but it has continued to be not uncommon, and is widely recognised as a risk incurred by those who work with phosphorus. The clinical symptoms have been fully described by Lorimer, Heyfelder, von Bibra, and Geist, Harrison, Roussel, and others. In addition to their more systematic descriptions many isolated cases have been put on record by different writers, and all agree substantially in their main features.

Symptoms and Course.

The disease may begin after a few weeks or months, or many years' employment in the factory, generally with toothache, and always in a carious tooth or in the socket of one which has been extracted. Its further progress may be very slow, the pain and inflammation remaining slight, and confined to the immediate area of the one tooth. Sometimes, however, it runs a much more acute course, and may involve a large part of the jaw in a few weeks or months. In either case, when the process once begins to extend, the gum becomes red, tense, and swollen, and the swelling may then resolve itself into a circumscribed phlegmon, or may form a large tumour which spreads to the neighbouring soft parts, causing a swollen appearance of the lips and cheeks, or the regions under the lower jaw. The abscess then bursts or is opened, when it discharges stinking pus, and in its place an ulcer quickly forms, which lays bare the bone. The discharge is greenish, greyish, or sanious, and contains a quantity of bony detritus. The teeth become loose and fall out at the diseased part; the gum becomes livid, and fistulous openings form in it from which pus discharges continuously into the mouth, or the pus may burrow and discharge externally through the skin of the face by several small openings. On probing these openings, bare bone can be felt. Later the gum disappears, and exposes the alveolar arch and other parts of the jaw, the bare bone having a brownish or dirty-grey colour; its surface is roughened and eroded, evidently in a condition of caries, and the pus can be seen oozing from its surface. The salivary and neighbouring lymph glands are hard and swollen. Larger or smaller portions of the jaw-bone then become necrosed, in process of time get loosened and detached from the rest, and ultimately exfoliate or can be easily removed with forceps. There is great difficulty in chewing and swallowing, and the patient has to live on soft food and liquids. The process may last for months or years, and may be entirely confined to the upper or lower jaw, the general health remaining fairly good. It may spread from one part of the jaw to another, or from one jaw to the other.

In the most favourable cases, after portions of the jaw have necrosed and been removed, the whole process may cease, new bone is formed from the periosteum, and cicatrisation of the soft parts takes place. But there is always more or less deformity, sometimes very slight, sometimes very severe, and the alveolar arch is never restored.

In other cases the disease, instead of healing, spreads locally, involving more bone, the patient becomes cachectic, feverish, and wasted, and ultimately dies of pulmonary phthisis, general tuberculosis, or some other tuberculous affection. A few cases run a very acute course, both as regards the local and general conditions, there being very great destruction of bone and very severe systemic disturbance, death occurring in two or three months.

Pathology.

As regards the bone, the condition is one of cario-necrosis, there is chronic ostitis and periostitis, and it differs in no respect from the same lesion as seen in other bones and from various causes.

It has long been held that this necrosis, or cario-necrosis as it should rather be termed, is due to a specific action of phosphorus fumes on the bone, these being supposed to cause a peculiar and specific kind of inflammation. If one considers, however, the whole circumstances and the clinical histories of individual cases, the conclusion must inevitably be drawn that the process is due to infection from a micro-organism. Phosphorus fumes consist of phosphorous anhydride (P_4O_6) chiefly, with some phosphoric anhydride (P_2O_5), and during the oxidation either ozone or hydrogen peroxide is also formed in small amount. From what we know of suppurative processes, it is inconceivable that any of these bodies can cause a chronic purulent inflammation of bone such as has just been described as occurring in "phossy jaw."

Acting on this idea I applied to Mr. Cornelius E. Garman, surgeon to Messrs. Bryant and May's match factory, who very kindly has supplied me with specimens of pus from six cases of phosphorus necrosis of the jaw under his care at the present time. In every case the pus was very fœtid and was greenish, or brownish, or greyish in colour. Attempts to make cultivations from the pus revealed the presence of staphylococcus albus, streptococci, and numerous other organisms, none of which could reasonably be regarded as the cause of the cario-necrosis.

Presence of Tubercle Bacilli.

It is well known that tubercle bacilli cannot be cultivated from pus, but on staining cover-glass preparations of the pus by the Ziehl-Neelsen method the bacillus tuberculosis was found in every case. As is usual in the discharge from tuberculous bone, the organisms were few in number and difficult to find except on the closest and most careful examination. On centrifuging the pus and then examining the sediment they were more easily detected. Sometimes several cover-glasses had to be examined before any of the organisms were seen. Most of the bacilli were perfectly typical in appearance, others were small and thick, resembling the forms usually found in the urine. They were scattered about singly, or in small clumps, or in groups of one or several dozens.

Inoculation of guinea-pigs with the pus did not infect these animals with tubercle, and hence the bacilli must be regarded as being either dead or as having almost entirely lost their infective virulence. It is now proved, however, that tubercle bacilli in this condition are quite capable of setting up and maintaining local suppuration and irritation for an indefinite time. Besides, they are assisted by the action of the pyogenic organisms with which the pus swarmed. The condition of the tubercle bacilli is probably to be explained by the fact that all the cases which I have had an opportunity of examining are recovering, and have been under treatment for very long periods with antiseptic mouth washes, etc. The condition generally is exactly similar to what is seen in tuberculosis of the jaw in cattle and in tuberculous disease of other bones in man. The presence of the tubercle bacillus can hardly be regarded as fortuitous, seeing that it was found in every case, and its presence is held, so far as our present knowledge goes at least, to be proof positive of the tuberculous origin of any lesion.

If further proof of the tuberculous nature of the jaw disease were wanted, it is to be found in looking through the accounts of *post-mortem* examinations of fatal cases. In most cases death occurs from tuberculosis of the lungs. Whether this is due to infection from the jaw tubercle, or whether the phosphorus fumes damage the lungs, and make them more susceptible to direct infection, I am unable to say.

General tuberculosis is also not uncommon, while tubercle of the abdominal glands, and tuberculous ulcers of the intestine, are almost invariable, these last arising certainly from infection by swallowing the pus. Abscess in the brain, purulent pleurisy and tuberculous meningitis are also occasional causes of death. Hectic fever and emaciation always accompany fatal cases.

The part which the phosphorus plays in the process is not far to seek. The acid fumes (phosphorus and phosphoric acids) produced by its oxidation in the air have no effect on bone covered by gum or mucous membrane; but when they can penetrate to the bone directly through the aperture left by a decayed or extracted tooth or any injury, they erode the bone, weaken its nutrition and resisting power at this small spot, and make it susceptible to infection by tubercle bacilli. The bacilli having made good their foothold, spread slowly in some cases and with disastrous rapidity in others. I think I am correct in saying that the great majority of workers in match factories have carious teeth, and yet only a very small proportion of them become affected with cario-necrosis of the jaw—namely, those of them who, owing to their home surroundings or to individual predisposition, become readily infected by the tubercle bacillus. V. Bibra and Geist state that the disease may occur weeks or months after the patient has left the match factory, and in one of their reported cases the woman had actually been eighteen months away from the work before any symptoms began. This in itself is almost complete proof that the phosphorus fumes are only a predisposing cause, and that the disease depends on subsequent infection. It is well known that v. Bibra and Geist, and later Wegner, produced suppuration and cario-necrosis in [the jaws of rabbits by injuring the periosteum and then exposing the animals to phosphorus fumes (on uninjured rabbits the fumes had no effect). The rabbits all died in from five to ten weeks' time and were found to have tubercle of the lungs. I experimented in a different way, as it is evident that these animals had become rapidly infected from the laboratory cages in which they were kept. I got new wooden hutches made, placed them in a room where animals had not been previously kept, and kept them scrupulously clean. In the hutches pieces of phosphorus were placed in a mortar on damp earth (to avoid risk of fire) in such quantity that the cages were constantly filled with the fumes in much greater amount than can possibly occur in any factory. Four rabbits were then placed in the hutches after the periosteum and gum had been removed over a considerable portion of the upper and lower jaws in each. In one a tooth was loosened in addition, the operations being all performed under chloroform. They seemed to suffer no inconvenience either from the operation or from living in the phosphorus-fume atmosphere. It has been very difficult to prevent the gum growing over the exposed bone, and after many weeks there is not the slightest trace of any jaw affection. The exposed surface of bone has become slightly eroded and rough, but whether from the action of the acid fumes or from that of the bacilli of the mouth it is impossible to decide.

Treatment.

The treatment hitherto pursued in cases of phosphorus jaw has been to wash out the mouth with deodorant and antiseptic lotions, and wait until the necrosed pieces of bone come away. This is always extremely tedious, and may last many years. In extreme cases the whole lower jaw, or half of it, or parts of the upper jaw have been excised. Sometimes by so doing the whole of the infected portion may be removed, but frequently the disease has again broken out in a neighbouring part of the bone. It is evident, however, that early operative interference is called for, and that the original tuberculous focus at the root of the tooth should be removed at once.

Prophylaxis.

As regards prophylaxis, there is absolutely no risk so long as the bone remains protected by gum, and even when carious teeth are present the entrance of the bacilli can be prevented by careful stopping. Efficient ventilation of the workshops will dilute the acid fumes arising from the phosphorus, and make them less active in injuring exposed bone. The infection with the tubercle bacilli is a matter quite apart from the factories, and cannot be controlled either by State regulations or workshop rules. It is acquired—as other tuberculous affections are acquired—by certain persons and not by others, and owing to the present all-pervading frequency of the organism persons with exposed bone eroded by acid fumes, and living under bad hygienic conditions, are very apt to become infected. Whether the fumes also weaken the mucous membrane of the lung alveoli and predispose to pulmonary phthisis among persons employed in match factories, I have no information which will enable me to decide. It is just possible that actinomyces or other organisms may also occasionally lodge in the weakened bone, and lead to caries and necrosis, but in those cases which I have hitherto examined I have only found the tubercle bacillus.

My great difficulty all along has been to procure a sufficient amount of clinical material to enable me to make my observations more extensive and precise, and I shall be greatly indebted if any surgeon who has cases under his care, and more especially recent ones, will supply me with specimens of the discharge.

In conclusion, I have to express my great indebtedness to Mr. Garman and his son for a great deal of information and assistance, as without their active help and co-operation I could not have made these observations.

THE TREATMENT OF TETANUS BY THE INTRA-CEREBRAL INJECTION OF ANTITOXIN.

WITH PARTICULARS OF A CASE TREATED BY THIS METHOD, FOLLOWED BY RECOVERY.

By D. SEMPLE. M.D.,
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Tetanus Toxin and Antitoxin.

It is now a well-established fact that tetanus is a disease caused by the absorption of a toxin elaborated by the tetanus bacillus. The bacteria which produce this toxin are confined to the inner or outer surfaces of the body, site of inoculation, or devitalised tissues. Here they multiply and produce a very strong toxin, which after absorption is taken up by the cells of the central nervous system, is fixed there, and gives rise to the spasms which characterise the disease. All the symptoms of tetanus can be produced in susceptible animals by hypodermic injections of toxin free from bacilli.

In a case of tetanus the toxin reaches the central nervous system from the seat of its production by two paths, one part directly by the nerves, and on this account contractions may occur near the site of absorption before the general contractions set in. The other part reaches the central nervous system by the blood stream, and when it gets there it is, after a time, seized upon and fixed by the nerve cells in the same way that an aniline basic dye is fixed by a cell nucleus or a bacterium. This fixation of the toxin by the central nerve cells takes place in the spinal cord at an earlier period of the disease than it does in the higher nerve centres.

It appears that there exists a strong affinity between tetanus toxin and the cells of the brain and spinal cord. This affinity is easily manifested when they are mixed together *in vitro*.

Wassermann was the first to show that an emulsion of the brain or spinal cord of a susceptible animal, when mixed with tetanus toxin and injected under the skin of a guinea-pig (which is a very susceptible animal) produces no symptoms of tetanus, and the animal remains well. A control guinea-pig receiving the same amount of toxin *minus* the emulsion of brain or spinal cord dies with a typical tetanus. This experiment demonstrates that tetanus toxin is a neurotropic poison—that is, a poison which has a specific affinity for and joins itself on to nervous elements.

If a healthy animal, such as a rabbit, receives tetanus antitoxin hypodermically, it acquires passive immunity, and can resist large doses of tetanus toxin given subcutaneously or intravenously without any ill effects. In this case the tetanus toxin is neutralised as soon as it gets into the circulation by the antitoxin which is already there, and never reaches the central nerve cells at all. The animal is not, however, immune to a very small amount of tetanus toxin injected into the brain substance, but, on the contrary, after this operation, it readily develops cerebral tetanus and dies. It is evident from this experiment that tetanus antitoxin, whether given hypodermically or intravenously, does not immunise the brain cells.

An animal suffering from tetanus cannot, as a rule, be cured by giving antitoxin in the usual way—that is, hypodermically. The toxin has already been fixed in the central nerve cells, and these cells evidently do not take up the antitoxin from the blood, and are not influenced by it. In this case the toxin may invade new areas by spreading itself from nerve cell to nerve cell under cover of the antidote. On the other hand, animals in the early stages of tetanus can be easily cured by the intracerebral injection of a small quantity of antitoxin.

With the help of these facts, which are the outcome of recent experiments by MM. Roux and Borrel,[1] on tetanus in animals (and which I have been able to verify at Netley and at the Pasteur Institute, Paris), we are in a position to treat tetanus in man on a more scientific basis than formerly.

If tetanus is suspected, but symptoms have not yet appeared, antitoxin given hypodermically, or into the circulation, confers passive immunity, and is a certain and efficacious preventive. If symptoms have already appeared, it almost always fails to cure or to prevent the spread of the disease when given hypodermically, for the central nervous elements have not the same affinity for the antitoxin that they have for the toxin. On this account the toxin already fixed in the lower nerve centres does not meet with the antitoxin which is circulating in the blood, and the higher nerve centres, which have not as yet taken up the toxin, are not immunised against a spread of the toxin from the lower centres, so the disease takes its course.

INTRACEREBRAL INJECTION.

The only way to convey immunity to the vital parts of the nerve centres and to prevent their nerve cells from fixing the toxin, is to inject the antitoxin into the substance of the brain. If this is done early in the disease, while only the lower nerve centres are as yet affected and before the higher nerve centres have become affected, the progress of the disease is arrested, the symptoms already present, which depend on fixation of the toxin in the lower centres, remain for some time and then gradually disappear, the toxin ceases to invade new territories, and recovery is likely to be the result.

The first case of tetanus in man treated by MM. Roux and Borrel's method of intracerebral injection of antitoxin was done by MM. Chauffard and Quenin in Paris on April 26th, 1898, and the patient recovered.[2] Since then some 20 cases have been treated in and near Paris by the same method and with very encouraging results. During a visit to Paris in October last I had the advantage of seeing this method of treatment carried out at the Civil Hospital, Versailles, by M. le Dr. Vilon and M. Borrel. To both these gentlemen I am greatly indebted for their kindness and courtesy in giving me every facility to see the operation and to visit the case afterwards.

The patient was a middle-aged man in the early stages of traumatic tetanus following a ragged wound of the hand. The muscles of the jaw (masseters) and neck only were involved. He could swallow without difficulty. After the intracerebral injection of antitoxin the symptoms remained as they were for a week, and then improvement slowly set in and went on to convalescence.

In the same hospital there was a convalescent tetanus patient who had also been treated by intracerebral injection of antitoxin. In this case tetanus followed amputation through the lower third of the thigh for gangrene of the leg, caused by a suppurating popliteal aneurysm.

On November 17th, 1898, a case of tetanus was diagnosed at the Cambridge Hospital, Aldershot. On receiving a telegram asking for tetanus antitoxin I proceeded to Aldershot to see whether it might be possible to carry out MM. Roux and Borrel's method of treatment in this case. The medical officer in charge of the hospital, Lieutenant-Colonel J. Martin, Royal Army Medical Corps, and the medical officer in charge of the case, Lieutenant G. B. Crisp, Royal Army Medical Corps, expressed their approval.

History.—The patient was Private A. G., Army Service Corps, aged 22, three months service. No previous admissions to hospital. He was a strong, well-nourished man, of good phisique, and a total abstainer. He was admitted on November 14th, for contusion of the testicles caused by a bump on the pommel of the saddle. For a fortnight before admission he had been going through a course of rough riding in the riding school, and stated that he had had several falls and bruises. There were no open wounds, and the contusion of the testicles was not severe.

Onset of Tetanus.—On November 16th, two days after admission, he developed symptoms of tetanus. The masseter muscles, and the muscles of the neck were contracted, and those of the abdomen slightly so. On November 17th, the spasm of the jaw muscles was marked, and there were also spasms of the muscles of the legs and arms, especially on examination. The abdominal muscles were also slightly contracted.

Injection of Antitoxin.—At 9 P.M. he was put under chloroform by Lieutenant Crisp, R.A.M.C., and with the assistance of Lieutenant-Colonel J. Martin, R.A.M.C., I injected 2½ c.cm. of doubly strong antitetanic serum into each frontal lobe of the brain. At the same time 20 c.cm. of antitoxin were given hypodermically in the flank.

After-History.—He had a good night, and on November 18th the tetanic spasms of jaws and stiffness of extremities continued as before, and his condition was unchanged; 20 c.cm. antitoxin were given hypodermically.

On November 19th his condition was about the same; 20 c.cm. of antitoxin were given hypodermically.

On November 20th the spasms were less marked and not so easily excited by noise or other stimuli.

On November 21st the stiffness was less marked.

On November 22nd his condition was improving; he could open his mouth without causing spasms.

On November 23rd the muscles of the jaw and neck were free from spasms, but there was some stiffness of the limbs, and he started and had twitching of the muscles when he heard a noise, notably so when the camp gun went off on the hill a short distance from the hospital. The dressing was removed from the seat of operation and the stitches taken out. The wounds had healed by first intention.

On November 30th he was convalescent, but weak and anæmic. He was able to get out of bed, but had slight spasm of the arms on exertion. He presented no brain symptoms, ate and slept well. The temperature was practically normal throughout, pulse and respiration regular.

DESCRIPTION OF THE OPERATION.

The details of the operation are as follows: The patient is given an anæsthetic, and the hair shaved off over the fore part of the scalp, and the skin made aseptic. An imaginary line is taken over the head from one auditory meatus to the other. Another line is taken from the base of the nose to cross the first line at right angles on the top of the head, and a third line from the outer angle of the orbit to where the first two lines cross each other. The centre of the last line is the seat of operation, and is in front of the motor areas of the brain.

Having selected this site, an incision of about ½ or ¾ inch in length is made down to the bone. A small hole is now drilled through the bone with an Archimedean drill having a movable collar, so as to regulate the depth to which it penetrates. The hole in the bone need only be a little larger than the needle of the syringe which is to be inserted through it.

The syringe has a screw piston and the needle is attached by about 3 inches of rubber tubing. The needle is about 2 inches in length, and has a rounded point. It is inserted through the hole drilled in the bone, straight into the brain substance as deep as it will go, and an assistant holds it perfectly steady while the operator very slowly screws down the piston, so as to allow the antitoxin to soak into the substance of the brain drop by drop, to avoid breaking up any brain tissue. It should take at least ten minutes to inject 2½ c.cm.

When this amount has been injected the needle is withdrawn, and the edges of the scalp wound drawn together by two or three stitches, and the wound sealed up with collodion and cotton wool. The same operation is now repeated on the other side.

The object of using a round-pointed needle is to avoid puncturing a vessel. A sharp-pointed needle might possibly transfix an artery and produce hæmorrhage, whereas a round-pointed one would glide off a vessel and go past it.

The antitoxin used is double the strength of ordinary antitoxin, and although only 5 c.cm. are given (2½ c.cm in each side), it represents the amount of antitoxin present in 10 c.cm. of the original serum.

The dried antitoxin from 10 c.cm. of the ordinary antitetanic serum is put up aseptically in glass tubes, and sent out from the Pasteur Institute, Paris, ready to be dissolved. The tube containing the dried antitoxin should be opened without contamination, then 5 c.cm. of sterile water added to dissolve it. When the antitoxin is in complete solution, it is filled into a sterile syringe of the pattern described (Roux's pattern 5 c.cm. syringe), and is now ready for use.

In addition to the antitoxin given intracerebrally, the patient receives 20 c.cm. daily for two, three, or four days, according to circumstances. The antitoxin given intracerebrally immunises the higher nerve centres before the toxin has been fixed there. The antitoxin given hypodermically renders the blood antitoxic, and the toxin, as it becomes absorbed from the source of supply—wound, bruise, abrasion, or any other source, wherever it may be—is neutralised as soon as it enters the blood stream.

The advantage of giving the antitoxin hypodermically in addition to intracerebrally is evident when we reflect that the tetanus bacilli may still be cultivating themselves, and toxin still being absorbed.

In conclusion, it is my pleasant task to thank Lieutenant-Colonel Martin, R.A.M.C., and Lieutenant Crisp, R.A.M.C., for valuable assistance at the operation. I have also to thank the latter officer for the history of the case and notes.

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THYMUS EXTRACT IN EXOPHTHALMIC GOITRE.

BY W. RUSHTON PARKER, M.A., M.D.CANTAB.

THERE being still some difference of opinion about the efficacy of thymus extract in exophthalmic goître, notes of four cases, in which its effects were closely watched, may be of interest.

CASE I.—Mrs. A. aged 28, had been troubled with palpitation for three years, especially during the past twelve months. Her eyeballs protruded conspicuously; the upper lids were retracted so that the sclerotics were visible all around the corneæ, and blinking was infrequent, giving her a very staring look, and the upper lids had a lagging, jerky movement when lowered, but she was not aware of any unusual appearance about her eyes. A systolic murmur was audible all over her moderate-sized throbbing goitre, but she had only noticed the enlargement a month previously. Her pulse was 140. She had noticed tremblings for some months. The bowels were inclined to costiveness, and the skin was not unduly apt to perspire. She could walk two or three miles, and do her household work. She was rather anæmic, without any menstrual abnormality either during her twelve months of married life or before.

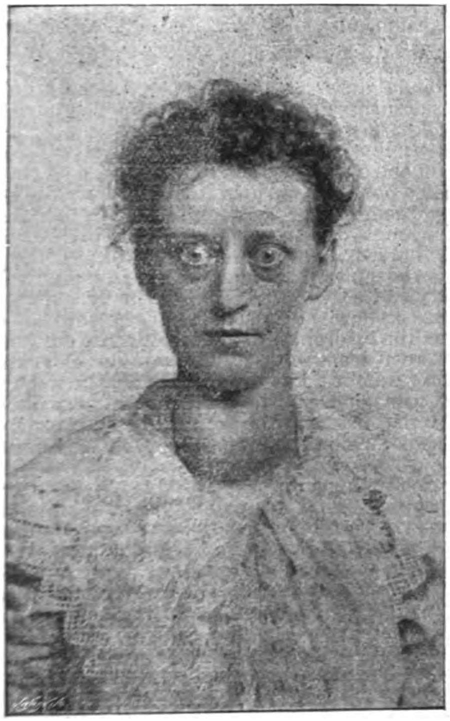


Fig. 1.

During six months she swallowed 2,000 5-grain thymus tabloids, mostly ten or twelve daily, and ate a large number of lightly-cooked lambs' thymus glands without the slightest perceptible effect upon any symptom, especially upon the rapidity of pulse, a note of which was made thrice daily for eight months, or upon the goitre, which remained as large and apparently as active at the end as at the beginning. Nor was she apparently in any way benefited by iron, digitalis, bromide, belladonna, arsenic, or blistering, each of which was persisted in for many consecutive weeks; indeed, the best pulse-record was undoubtedly during a three weeks' holiday, when she was freed alike from all medicinal treatment and from household cares. Nevertheless, she somehow professed to feel better at the end of the treatment than at the beginning. The photograph, taken towards the end of the treatment, represents her appearance throughout the course.

CASE II.—Miss B., aged 35, born of a goitrous stock in a goitrous valley, noticed her goitre in her thirteenth year, and palpitation, tremblings, cramps. and weakness in her nineteenth year. There was slight drooping of the upper lids, but no protrusion of eyeballs or other ocular abnormality; her neck measured 16½ inches, and a systolic murmur was audible all over the large throbbing goitre; she complained of frequent faint feelings, had a pulse-rate of 120, and a systolic murmur at the base; she complained of always feeling hot, with a burning sensation in head and eyes, but no great tendency to perspire; her bowels were loosely moved twice daily; there was no menstrual abnormality; she was too weak to be of much use in household work.

During 18 months she swallowed 5,000 5-grain thymus tabloids, usually twelve daily, and ate many scores of lightly-cooked lambs' thymus glands; the neck continued to measure exactly as before, though she thought it was less tense and more flexible; the looseness of the bowels ceased; palpitation lessened; the sensation of heat, and burning in head and eyes ceased, and also the tremblings and cramps; the pulse slowed to 90; she could bear exertion better, bicycling with ease; she perspired less easily, and had faint feelings less often. Her own impression was that the treatment had a very beneficial effect upon all her most troublesome symptoms; but it is important to note that some improvement had already spontaneously set in five years prior to the treatment, leading to a marked diminution of many annoying symptoms, during the two preceding years more especially. Digitalis, strophanthus, and blistering were persisted in for some weeks without any noticeable benefit; no other drugs were used. The photograph, taken on the first day of treatment, equally well represents her appearance at the end.

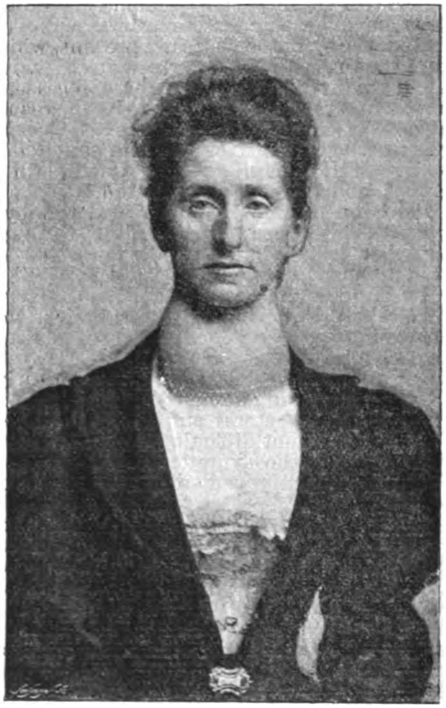
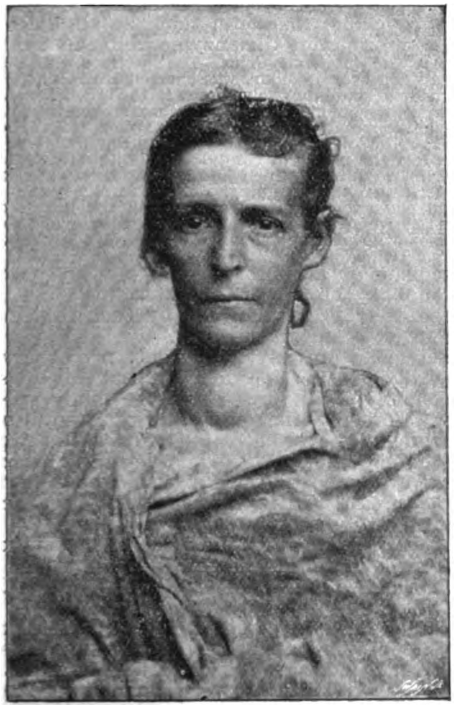


Fig. 2.

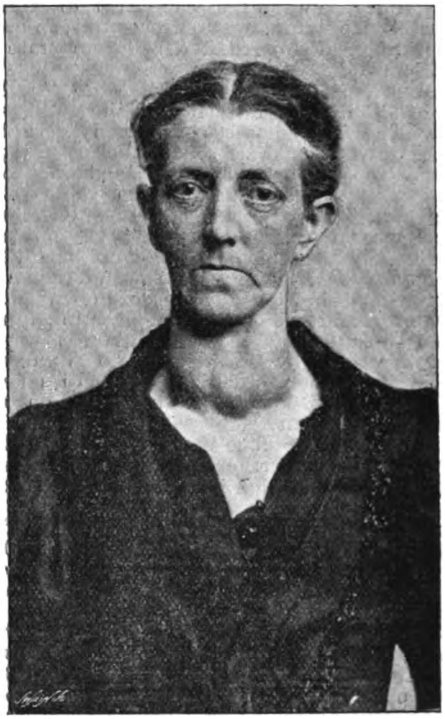
CASE III.—Mrs. C., aged 45, had suffered about a year from goitre, palpitation, tremblings, nervousness, weakness, looseness of bowels, and easily perspiring skin; she had only lately noticed a peculiarity about the eyes: there was some retraction of the upper lids, so that the entire corneæ were ordinarily just in view, and blinking was infrequent, giving her rather a staring look, and the upper lids were lowered in a lagging and jerky fashion, but there was no obvious protrusion of the eyeballs. Her neck measured 14½ in., and a systolic murmur was audible all over a smallish throbbing goitre. She complained of frequent faint feelings, had very marked palpitation, and an irregular pulse of 144; her face was flushed, and her skin beaded with perspiration; she had four to eight loose stools daily; she was much too weak to do any household work, her hands continually trembling; she had ceased menstruating six months previously. During the first three months she improved greatly under digitalis and quinine, the pulse being sometimes under 100, the skin often dry, there being less trembling and palpitation, and two or three formed stools daily; she could cook and do other household work, and even walk a mile. During the next three months she swallowed 400 5-grain thymus tabloids, and ate numerous lightly-cooked lambs' thymus glands, besides continuing digitalis most of the time; but while the pulse was commonly between 160 and 180, and occasionally 200, she kept looking better and feeling stronger, passing two formed stools daily, the neck measuring 13½ in. instead of 14½, and doing all her household work, and occasionally walking two miles easily. During the next three months, while medicinal treatment was almost abandoned, the neck still appeared to lessen, palpitation was much less, nervousness and tremblings stopped, the eyes looked normal, she was on her feet all day, doing all her household work and walking long distances, yet the pulse remained about 150. During the next three or four months, in only one of which thymus was administered, she continued to look and feel perfectly well, with a pulse of about 140, rarely having palpitation and never tremblings, there being no ocular signs, but still some thyroid enlargement.



Case III.

This patient, originally severely and dangerously ill, became practically quite well; but the improvement began long before the administration of thymus, and seemed to continue independently of it; moreover, thymus was taken in comparatively small doses of four to six tabloids daily. Digitalis at first seemed beneficial but subsequently did apparently more harm than good. The photograph, taken at the beginning of the treatment, can with difficulty be distinguished from another taken at the end.

CASE IV.—Mrs. D., aged 47, born of a goitrous stock in a goitrous district, had noticed her goitre for three or four years, and had recently observed that, as she sat reading or sewing, she could feel her chin resting upon a throbbing swelling; she had lately been troubled with palpitation, heats, and flushings (which she attributed to the possibly commencing change of life), and occasional tremblings and cramps. Her neck measured about 15½ inches, and by frequent mere blisterings during eighteen months it was reduced to 14½ inches. She was then photographed at the age of 49, the upper eyelids being then slightly retracted so that nearly the entire corneæ were ordinarily visible, and blinking was infrequent, so that she had a staring look, but no obvious lagging or jerkiness was noticeable in lowering the upper lids; throbbing was no longer obviously felt in the goitre, though a systolic murmur was audible all over it; the pulse-rate was 100 and regular; and she was occasionally troubled with palpitation; there was no looseness of the bowels or aptitude to perspire except near a fire. For six weeks thyroid 5-grain tabloids were tried very tentatively, usually only one daily, occasionally two; but the pulse-rate ran up to 140, palpitation became most annoying, and a systolic murmur was heard at the base; she felt more nervous, heated, weak and liable to tremblings and cramps; even slight exophthalmos seemed to develop, and certainly the upper lids seemed more retracted, so that the sclerotic became ordinarily visible above the cornea of the right eye, and the staring look seemed more pronounced; nevertheless the neck seemed to be reduced by another inch during the six weeks. During the next twelve months she swallowed 700 5-grain thymus



tabloids, usually six or eight daily for periods of several weeks at a time, under which treatment the pulse returned to 100, palpitation and nervousness vanished, ocular signs disappeared, but the neck was no further reduced. During three consecutive months of this period she took no thymus, yet the pulse was found at 110, palpitation very rare and slight, nervousness a thing of the past, and no ocular signs discernible.

In this case, while thyroid extract produced most unpleasant effects, no certain benefit could be traced to the use of thymus. Nevertheless the patient was found a year and three-quarters subsequently perfectly free from all discoverable symptoms except a pulse of 96, and a very slightly enlarged thyroid, having throughout that period treasured up her last stock of thymus tabloids, convinced that they cured her of her troublesome symptoms and might therefore be needed at some future time.

EXPERIMENTAL NOTE ON THE FERMENTS OF THE RINGWORM FUNGI.

By LESLIE ROBERTS, M.D.,
Dermatologist to the Liverpool Royal Infirmary.

AMONG the recent additions to our knowledge of the ringworm fungi is the fact that they are zymogenic or ferment-producing organisms. The steps by which this information has been gained may be briefly recapitulated. In the year 1892 I began the method of feeding artificially-reared trichophyta with human and animal hairs, and then observed, for the first time, that the fungus penetrated and disintegrated the hair when removed from the body, just as it does in the natural process of ringworm.

I can well remember the particular species which impressed my mind for the first time that the process of disintegration was essentially one of digestion. It was a Chinese variety of trichophyton, and the original affected hair had been taken from the head of a Chinese boy in the clinic of my brother, the late Dr. Frederic Roberts, of Tientsin. Never before or since have I seen any variety of trichophyton which could match this Chinese specimen in its remarkable power of digestion. It belonged to that group now known as the trichophyta megalospora. And what to me was still more astonishing was the fact that a commensal of this Chinese fungus had likewise remarkable power of digestion; and this observation acquired peculiar significance when I discovered it to be not a trichophyton, strictly speaking, but an aspergillus, an order of fungi which are universally distributed over temperate climes as saprophytic moulds.

In a thesis entitled the *Introduction to the Mould-Fungi Parasitic on Man* (1893) I illustrated the artificial origin of ringworm. The method was again briefly described in the BRITISH MEDICAL JOURNAL of September 29th, 1894. In 1895 Dr. Allan Macfadyen[1] brought forward evidence to prove that "the ringworm fungus" produced a proteolytic enzyme capable of digesting gelatine. Macfadyen, who worked with fresh specimens of a trichophyton (variety not mentioned), based his conclusions upon the examination of the soil in which the fungus had grown. He found that a solution of gelatine in which the trichophyton had grown had active proteolytic powers, and was capable of digesting fresh gelatine apart from the fungus. He further showed that the active agent was destroyed by heating for two minutes at 100° C. He found that acids retarded, while alkalies favoured the action of the enzyme. Macfadyen could find no evidence of a sugar-inverting ferment. He was not able to satisfy himself that the proteolytic ferment had any action on fibrin or on hair; but he made the further observation that his specimens of trichophyta could grow on soils composed almost entirely of keratin.

Four months later I published[2] the evidence which led me to conclude that the keratolytic function, that is, the power to digest keratin and corneous structures, was more extensively possessed by fungi than had been previously suspected. I proposed to call these hair-digesting organisms the keratolytic fungi, a group which included not only the trichophyta proper, but favus, and some species of aspergillus. In 1896 my observations were confirmed by Pelagatti[3] in Parma.

My own observations on the proteolytic ferment of the trichophyta, which I will now briefly record, were made on different lines to those of Macfadyen. This observer dealt with fresh specimens of the fungus in question, and, as I have said, his conclusions in regard to the ferment were based on examination of the soil in which the fungus had grown. On the other hand, the specimens which I examined were all aged, some of them 6 years old, and from which all traces of the original nutrient medium had disappeared. They were in fact simply dry museum specimens, which had long since lost the power of reproduction. The fungi which I tested were trichophyton microsporum (homo), T. megalosporum (homo), T. equinum, T. caninum, and achorion.

Observation 1. Trichophyton Microsporum.—The specimen was 6 years old (less 39 days), and in a perfectly dry state. On the surface of this dried specimen I poured 4 c.cm. of a 5 per cent. solution of gelatine in distilled water, and placed it in the incubator (32° C.). After fourteen hours it was removed, when the gelatine was found to have lost the power of resolidifying at low temperatures.

Observation 2. Trichophyton Megalosporum.—This completely dry specimen, 5 years and 10 months old, was covered with 4 c.cm. of a 10 per cent. gelatine solution, and maintained for nineteen hours in the incubator at the temperature of 32° C. When removed and allowed to cool down to the temperature of the room (16° C.) the gelatine, which was clear, remained perfectly limpid, and refused to set even when surrounded by cold water.

These observations show:

1. That the active agent in the liquefaction of the gelatine is contained in the mycelium itself, and not formed outside the body of the fungus by secondary changes in the soil.

2. That the active agent can retain its activity in a dormant state for a period of six years, when the fungus has been preserved in a perfectly dry state.

3. That the activity of the agent is independent of the life of the trichophyton.

What is this agent which can retain its functional activity and integrity over so long a period, and can resist the common tendency to disintegration?

Observation 3.—A small quantity (0.6 c.cm.) of a previously digested 5 per cent. gelatine solution (Observation 1) was added to 4 c.cm. of a 10 per cent. fresh gelatine solution. After maintaining this for twenty-one hours in the incubator at 32° C., the gelatine was found to have lost the power of resolidifying at low temperatures.

Observation 4.—The same quantity (0.6 c.cm.) of digestive gelatine was placed in a clean watchglass and subjected over a waterbath to a temperature of 85° C. for exactly two minutes. It was then mixed with 4 c.cm. of fresh gelatine solution and allowed to stand for twenty-one hours in the incubator (32° C.). After this period of incubation it was permitted to cool down to the temperature of the room. The gelatine resolidified; there had been no digestion.

The following conclusions can be drawn from these two observations:

1. That very minute quantities of the active agent can digest comparatively large quantities of gelatine.

2. That the activity of the agent is completely destroyed by an exposure of two minutes to the temperature of 85° C.

3. That the active agent is of the nature of enzyme or soluble ferment.

Observation 5.—A small quantity of the enzymed gelatine from the last experiment was evaporated over a water bath at 65° C., and the residue extracted with absolute alcohol. This alcoholic solution was allowed to evaporate slowly at the temperature of the room (20° C.). A whitish opalescent residue was left, which had the faint odour of a trichophytic vegetation. This residue from the alcoholic extract was now rubbed up with a small quantity of distilled water; but only a small portion appeared to dissolve, most of the residue being held in a state of suspension. This watery mixture of the alcoholic extract residue was then poured on the surface of 4 c.cm. of 10 per cent. fresh gelatine, and maintained for twenty-one hours in the incubator at a temperature of 32° C. After removal, when allowed to cool down to the ordinary room temperature, the gelatine was found to have been unaffected, and resolidified equally as well as the control gelatine.

We may conclude, therefore, that the absolute alcohol is not capable of extracting the enzyme from the mycelium.

Observation 6. Trichophyton Equinum.—The specimen, which was perfectly dry and of a deep brown colour, was covered with 4 c.cm. of distilled water, and made to stand for twelve hours in the incubator (32° C.). This watery extract of trichophyton was then poured over the surface of a 10 per cent. gelatine solution, and maintained for twelve hours in the incubator (32° C.). When removed the gelatine was found to be digested, and to have lost the power of resolidifying at low temperatures. The same specimen (T. equinus) which had already been extracted with the distilled water, was now covered with 4 c.cm. of a 10 per cent solution of gelatine, and made to stand twelve hours in the incubator at 32° C. When it was removed, and allowed to cool down to the ordinary temperature of the room, the gelatine was found to be undigested, and resolidified like ordinary gelatine.

The conclusion of this observation is obvious, namely, that pure water has the power of extracting the proteolytic ferment from the mycelium, which by such treatment ceases in a few hours to be enzymopherous.

In respect of an amylolytic ferment, my observations, so far as they go, point to the conclusion that this does not exist in the trichophyta. I have examined many specimens of British and foreign trichophyta, also T. equinum and T. caninum, and have never been able to detect the slightest evidence of the presence of a starch-digesting ferment. Its absence, howeved, does not surprise me, for the trichophyta can assimilate starch as such without any saccharine transformation.

It may be asked, What is the relation of this proteolytic ferment to the keratolytic ferment? I think there can be no doubt that the two are perfectly distinct and different ferments. The proteolytic ferment, as we have seen, is soluble in pure water, and may excite active fermentations, apart from the life of the fungus. It is simply an enzyme or soluble ferment. On the other hand, the keratolytic or keratine-digesting agent is an organic ferment, whose operations are purely vital, depending not only on the life of the organisms, but varying in intensity and in kind from one species to another.

Another point of much interest is that the keratolytic action of the T. megalosporum in scalp ringworm is directed against the interior substance of the hair, leaving, when this is digested, a hollow shell of cuticle. T. microsporum, on the other hand, directs its keratolytic powers against the cuticle, digesting this first and subsequently attacking the interior cortical matter.

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ON TONSILLAR CALCULI.

BY W. G. AITCHISON ROBERTSON, M.D., D.Sc.,
F.R.C.P.E.,

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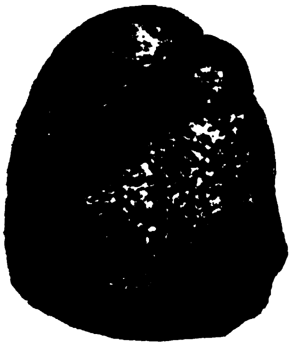
THE occurrence of large calculi in the tonsils is a condition so relatively rare that it merits a description of the following case.

The patient is a healthy man, aged 50. About six years ago he began to suffer from repeated attacks of tonsillitis, which often ended in suppuration. His occupation as reader in a large newspaper office exposed him to chills. These inflammatory attacks laid him up very frequently and especially during spring and autumn. About three years ago the submaxillary glands of his right side began to enlarge and become painful. They ultimately suppurated, and discharged by a small sinus in front of the neck at the level of the thyroid cartilage. This discharge continued more or less persistently for several months, until the outflow was obstructed in some way, when a diffuse cellulitis of the neck set in. This extended from the right ear forwards, and reached as far downwards as the middle of the sternum. His temperature rose, and the breathing became somewhat embarrassed. The sinus was therefore slit up as far as the glands, and a large quantity of pus evacuated. The patient made a rapid recovery from the operation, and since then has had immunity from further attacks of tonsillitis. For the last two years his health has been remarkably good.

At the end of June of the present year, while spending his holiday at the seaside, he thought that he had caught a slight cold, as he experienced a fulness in the throat. He noticed that he could not drink fluids so rapidly as before, and that he had to take them in sips. On July 3rd he retired to rest feeling perfectly well. During the night, however, he was awakened by a feeling of suffocation. He made a strong inspiratory effort, and was nearly choked by some large body in his throat. He sprang out of bed, thinking that his false teeth had slipped back, and, coughing violently, a large, elongated, somewhat oval stone was ejected. There was no bleeding either previously or at the time of expulsion of the stone. On palpating the throat a few days subsequently a rough tuberculated area was felt behind the right pillar of the fauces, and in the centre of this a depression from which the calculus had evidently been extruded. A gland on the right side below the angle of the jaw was enlarged and hard.

The calculus is somewhat oval in shape, and corresponds in size to a rather small hen's egg; one extremity is a good deal broader than the other. It is of a pale yellow colour, and though the surface is fairly smooth it presents a worm-eaten appearance. When fresh it had a very disagreeable smell, reminding one of rotten cheese. Its greatest length measures 1⅝ in. and greatest breadth 1⅜ in., corresponding to 42 and 36 millimetres respectively. It weighs almost 1 oz. (26 8 grammes). The layers of which the stone is composed are arranged concentrically.

This is by far the largest tonsillar calculus which I have been able to find any record of. The most of these described have varied from the size of a pea to that of a small nut. Dr. Nixon[1] removed a calculus as large as the first joint of the thumb from the tonsil of a young man, but this standard of comparison is unfortunately very variable.



Calculus from right tonsil; weight one ounce.

Etiology.—Such calculi seem to occur in persons who have suffered from repeated attacks of tonsillitis. In most of the cases there is a history of suppuration of the tonsil either precedent to or coexistent with the extrusion of the calculus. When once the concretion has formed, however, it may itself be the cause of the repeated tonsillitis. In three cases related by Alexander Munro the attacks of tonsillitis were extremely frequent. One of these cases was that of an old woman who had suffered constantly for twenty years from inflammation and suppuration of the tonsil, with quiescent intervals seldom exceeding three months. In other cases, however, the tonsillar abscess has discharged itself long before the expulsion of the stone, as happened in the case which I have related. Dr. Hewitt[2] narrates the case of a woman who nine years previously had suffered from suppuration of her left tonsil, and from which a calculus the size of a field bean had been expelled. Six years subsequent to this attack and during pregnancy two smaller calculi were expelled without previous inflammation or suppuration, and two years later, during a second pregnancy, the glands of her neck swelled greatly, and one month after delivery the left tonsil again suppurated, and a stone weighing 11 grains was extruded. The concretion in such cases remains evidently for long without giving rise to any disagreeable symptoms. When, however, such a tonsil becomes inflamed as a result of cold or other cause, the symptoms may rapidly become severe, with marked dyspnœa and dysphagia. Dr. Baker[3] records the case of a highly scrofulous woman, aged 43, who was attacked with severe sore throat, accompanied by great pain in the ear. The throat rapidly swelled, and she experienced great pain and difficulty in swallowing, accompanied by a choking sensation. During violent coughing the tonsillar abscess burst, and a calculus as large as a pea was discharged from the right tonsil. In Dr. Bryant's[4] case the patient had suffered from sore throat eighteen months previously. All the symptoms had, however, passed off, and little inconvenience was felt. The right tonsil was large, firm, and painless. While coughing the patient felt sudden pain in the right side of the throat and at the same time a hard and rough calculus, the size of a small nut, came away. The patient of Dr. Nixon was a young man aged 25. He had sung in public two days previous to the expulsion of the calculus, and had felt no inconvenience from the large size of the concretion in the left tonsil until attacked by the general inflammation of the throat due to cold.

Origin of these Calculi.—Some authors affirm that they are of gouty origin, but in most of the cases related no tendency to this affection was present. The father of the patient whose case I have recorded did certainly suffer from gouty troubles, but the son has, up to the present at least, shown no signs of this affection. Other writers think that they are formed by a deposit from the buccal secretion, and that they are similar in nature to the tartar which accumulates round the bases of the teeth. Robin[5] suggests that they may originate in small calcareous crystals which may be seen, he says, in the centre of the tonsil. In all probability, however, the smaller concretions are due to the retention of caseous material in the enlarged follicles of the tonsils. When not extruded, this caseous matter dries up and forms a nucleus round which inorganic salts are deposited or the cheesy matter may be itself replaced by lime salts. It is highly improbable in my opinion that they can have their origin in the retention of particles of food in the cup-shaped depressions left in the tonsil after an attack of follicular tonsillitis. It has been suggested that these particles of food undergo subsequent calcification. The larger calculi probably result from the retention of pus in the interior of the tonsil. The abscess has either never broken or has imperfectly discharged itself, and the residual matter has undergone caseation and subsequent calcification. Such stones when retained may grow in size by a further gradual deposit of lime salts until it may attain the enormous size of the stone from the case I have related.

Size, Shape, and Colour of Concretions.—The calculi are generally small in size, and are compared to grains of barley. The larger ones on account of their rarity, have usually been reported in the medical journals. Calculi thus noted have been said to be equal in size to a pea, bean, small nut, olive kernel, and first joint of thumb. The weight when given has varied from 3½ to 11 gr., or from 0.04 to 3 g. Their shape is generally elongated. Some are described as pyriform. They are usually more or less rough on the surface, and in some cases this is so marked that they are said to resemble small mulberry calculi. One which is described by Dr. Yearsley resembled a piece of rock coral in the irregularity of its shape. The odour which they give off when fresh is disagreeable and fœtid. When they are dry, however, it resembles that of old bone. In colour they are pale yellow or light brown.

Chemical Composition.—Their chemical composition is rarely given. Baker states that the concretion which he had examined was composed chiefly of carbonate of lime, with some oxalate of lime and animal matter. Bryant says that carbonate and phosphate of lime are the chief salts present. The only accurate analysis of a tonsillar concretion is that given by Robin as a result of Langier's analysis:

Water	25.0	per cent.
Phosphate of lime	50.0	,, ,,
Carbonate of lime	12.5	,, ,,
Mucus	12.5	,, ,,
	100.0	,, ,,

My analysis of the calculus in the case which I have described and in which I had the invaluable help of Dr. Milroy of the Physiological Laboratory, showed that the greater part of the stone was composed of phosphate of lime and magnesia along with a small amount of carbonate, the figures are as follows:

Organic matter	18.40 per cent.
Inorganic matter	81.60 „ „
Phosphoric anhydride...	50.00 „ „
Calcium and magnesium oxides ...	28.20 „ „

Tonsil Affected.—There does not seem to be any special tendency for one tonsil to be affected more than the other. In 14 recorded cases right and left tonsil were in equal proportion the seat of the calculus. In several of these cases both tonsils were enlarged at the same time.

Hereditary Predisposition.—It is hardly possible to say anything definite regarding the influence of heredity as a predisposing cause, as the recorded cases are so few and information on this point is seldom given in those which are reported. In the 3 cases of tonsillar calculus mentioned by Munro the disease affected two sisters and a near relative. A daughter of the patient whose case I have related suffers from chronic sore throat with enlargement of the tonsils.

Diagnosis.—Unless in very evident cases where the concretion is near the surface diagnosis must always be difficult. Patients, however, who suffer from repeated attacks of angina with only short intervals of comparative ease, and whose tonsils are persistently of large size, form fit subjects for the development of tonsillar concretions. In such cases we should make a thorough examination of the throat by palpation. If there be any yellowish ulcers on the surface of such chronically inflamed tonsils the probe should be used. If a calculus be present it will thus be readily detected.

Treatment.—As soon as the exact condition is recognised the concretion ought to be removed, as dangerous symptoms may suddenly supervene. If the stone be large and be spontaneously evacuated there is the possible danger of suffocation as nearly happened with my patient. Had the stone been only a little smaller it might have become firmly impacted in the man's throat as a result of his sudden inspiratory effort and asphyxia might have resulted.

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MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

ACUTE SUPPURATIVE TONSILLITIS WITH CONVULSIONS.

A GIRL, aged 7, residing in the same house as myself, came home one evening complaining of "sore throat." Her mother (my landlady) asked me to see her. On examination the tonsils were found swollen (the right most so) and very red. The temperature was 101°. I ordered a mild purgative and a gargle of potassium chlorate. The child was fairly comfortable, and did not complain a great deal; towards night she grew restless. In the early morning the right tonsil, which had become distinctly suppurative, burst, after which the child slept some short time. All that day she was restless, eating nothing, until towards evening she again became drowsy, and seemed to sleep. Suddenly, whilst I was in the room, she sat upright, burst out into rambling statements, laughing and crying, and the next minute was seized with a severe and distinct convulsive attack, lasting some five minutes. I immediately placed her in a hot bath, and gave her a dose of ipecacuanha wine. The bath seemed to ease her, the temperature falling from 104.4° to 100°. She dosed off and seemed to sleep well for a short time, and then, waking up, vomited. She immediately seemed quite in her usual spirits, sat up, talked, and wanted to eat. She never had any more trouble, and was out and about again in a few days. Henoch has noted the occurrence of convulsions, I find, but says they must be very rare. The case seems to me interesting, not only from the convulsions, but from the rapid onset of the trouble. The child, although belonging to a neurotic family, has never had any signs of convulsions before, even when teething. She has had so far very fair health, except for a discharge from the left ear, which has been going on for some time.

ROGER K. HAMILTON, M.R.C.S.E., L.R.C.P.L.

Hasland, Derbyshire.

EXTRACAPSULAR FRACTURE OF FEMUR IN A WOMAN OF 82 WITH MORBUS CORDIS: RECOVERY.

MRS. B., aged 81, was attended by me from April till August, 1897, for mitral disease, she being at one time *in extremis* with general anasarca, etc. To my surprise, after continuously taking a mixture containing digitalis and strychnine for eight months, she began to improve, and eventually became much better.

On the evening of March 20th, 1898, I was asked to see her, as she had hurt her thigh. On visiting her, I was told that she had, owing to failing eyesight, missed sitting on a form, and fallen. I found fracture of the neck of the left femur, with the usual signs, but with marked crepitus and a good deal of discoloration. She was very intolerant of examination, and greatly exhausted.

I at once applied a long Liston splint, which she kept on for two weeks. Next I tried a poroplastic splint, but after a week she said it was uncomfortable, so I had a Thomas's splint made to enable her to get up, but she obstinately refused to do so, and as there were no signs of bedsores she was allowed to remain in bed.

After wearing the latter splint for six weeks, it was removed, and I found that union had apparently taken place; in fact active movements were soon performed. She remained in bed for another two weeks—eleven weeks in all—and was then lifted out daily into a chair. Being nearly blind, she was afraid to use crutches, but in a short time she began with help to hobble about.

Since then I have attended her again for her heart, her legs becoming very dropsical, but under the same medicine as before she improved considerably.

At the present time she is fairly well; can bear the whole of her weight on the injured limb, and with the help of a stick, etc., gets about in her cottage very well.

There is at least 1½ inch shortening, but she does not wear a patten, as she is afraid of tripping with it. She has twice to my knowledge fallen down, but no harm has resulted.

The case appears to me worth reporting on account of:

1. The great age of the patient, together with the cardiac affection.
2. The difficulties to be overcome in a cottage with well-meaning but quite inadequate nursing, the neighbours doing everything for her.

From the signs, I take the case to be one of extracapsular fracture, which is unusual in old people, and it is all the more surprising that she should recover on account of the additional severity of the constitutional disturbance in that variety as compared with intracapsular fracture.

Caldicot. CHARLES CORBEN, M.R.C.S.

STRANGULATED HERNIA IN PERICARDIAL SAC.

ON October 24th, 1898, I was requested to make a *post-mortem* examination on a well-built muscular Kaffir, who had died rather suddenly the same morning. The history, as given by his wife, was that up to the morning of October 22nd he was in perfect health, but during the afternoon he complained of pain about the ensiform cartilage and the umbilicus. It appeared to extend upwards into the chest, and to cause breathlessness and an uneasy feeling about the heart. Vomiting began about the same time; it continued at frequent intervals, and the pain increased steadily in severity during the night and the next day (23rd), so that the slightest movement was accompanied by unbearable pain. The abdomen from the first began to swell, and nothing was passed from the rectum. Everything taken by the mouth was promptly rejected. On the morning of October 24th he got up with the aid of a stick with the intention of micturating; he went a few yards, and was found dead a few minutes afterwards.

Post-mortem Examination.—About eight hours after death the abdomen was greatly distended. On throwing back the sternum and cartilages the pericardium was found distended.

On opening it a large quantity of blood-like fluid escaped, and lying within the pericardium, below the heart, were 18 inches of acutely strangulated ileum, slightly adherent by recent lymph. The strangulated hernia was of a dark "prune" colour and intensely congested, and had a rupture half an inch in length on the distal surface to the attachment of the mesentery. The opening in the diaphragm was about the size of a sixpence, and smooth edged. It was situated in the tendinous part. The part of the ileum strangulated was 4 feet from the cæcum.

The following points seem to be of interest:

1. The rarity of the case. Having looked through literature at hand I can find no similar case.
2. No history whatever of injury, accidental straining, etc.
3. Sudden death which I can only account for by rupture of intestine, pressure of fluid on heart, and shock.
4. The difficulty in diagnosis and of operation should the case have been seen in time to allow of surgical interference.

LAURENCE F. MCDOWELL, B.A., M.B., B.Ch.Univ.Dubl.,
Assistant District Surgeon, Hope Town, Cape Colony.

SYMPTOMS OF POISONING BY BORACIC ACID.

A SHORT time ago, while attending a lady suffering from long-standing inflammation of the bowels, I ordered irrigations of boracic acid twice daily—a tablespoonful to a pint of warm water. The result was most satisfactory as regards the disease; but, after three or four injections, she began to complain of headache, slight nausea, and intense dryness of the skin. On discontinuing the use of the boracic acid injections the symptoms ceased, to commence again with the resumption of irrigation. They ceased only when the disease was so far cured that we were able to use a solution of half the strength once daily. This is the first case I have met in which boracic acid caused unpleasant symptoms, and I have used it freely for children.

Cape Colony. SOPHIA GRUMPELT, M.D.Bern.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

THE MIDDLESEX HOSPITAL.

ACUTE TETANUS TREATED WITH ANTITOXIN; DEATH ON THE FOURTH DAY.

(Under the care of Mr. ANDREW CLARK, Surgeon to the Hospital.)

A. P., aged 19, a porter in a fruiterer's shop, was admitted on December 13th, 1898.

History.—On December 6th he was engaged in emptying a barrel containing apples and ran a splinter into the third finger of his left hand which was not taken out until December 10th. It seems to have given him but little trouble and he was in his usual health till December 12th, on which day he found a difficulty in chewing and swallowing his breakfast; he however went to work, but during the day he noticed that his neck was stiff and his back ached, and in the evening his jaws appeared contracted and he had difficulty in opening his mouth. The following morning, December 13th, all these symptoms had increased in intensity, so he went to the hospital and was immediately admitted.

Condition on Admission.—At 1.30 P.M., shortly after his admission, the facial muscles were rigid, face had a pinched expression, the corners of the mouth were drawn down, and it could only be opened a very little way. On attempting to do so the masseters became very rigid. The muscles of the neck were rigid, particularly at the back; the chest walls were rigid and scarcely moved either with ordinary or extraordinary inspiration; the abdomen moved fairly in ordinary, and more on deep, inspiration, but on palpation the recti were found to be rigid. There was a tendency to opisthotonos with rigidity of the muscles of back, but none of the arms or legs. The knee-jerks were slightly diminished, but the plantar reflexes were well marked.

Treatment.—At 3.30 P.M. 10 c.cm. of tetanus antitoxin was injected under the skin of the abdomen, and this was repeated at 9 P.M.; and the following is a note of his condition at that hour:

The rigidity of the parts mentioned above slightly increased, and now there is some rigidity of the muscles of the arm and thigh, but below the elbow and knee they are quite normal. Patient keeps perfectly quiet. There have been no convulsions or spasmodic contraction of any of the muscles. Pupils dilated. Temperature 100°, pulse 94.

Potassium bromide and chloral, of each gr. xv, was ordered to be given every three hours. The antitoxin injection was repeated on December 14th, at 10 A.M. By this time the symptoms had increased very much; the jaw could hardly be opened at all, the muscles of the neck were very tense, and the head was markedly retracted. There was no movement at all of the chest during respiration; the abdominal muscles were very tense, and there was rigidity of both the upper and lower limbs. Spasmodic contraction of the neck muscles occurred when the patient was touched, but beyond this there had been no convulsive attacks. He had had a few short intervals of sleep, and had managed to swallow about a pint of milk during the night. The temperature was 98.4°, the pulse 128, and the respirations 28. At 2.30 P.M. the condition was much the same, but since he has had several convulsive attacks; chloroform was administered, the sinus laid freely open, and the surface seared with an actual cautery. Another injection of 10 c.cm. was given. He took the anæsthetic very well, but just as he was coming round an attack of spasm of the glottis occurred, almost necessitating tracheotomy to prevent immediate suffocation. At 9 P.M. he had another injection of antitoxin; all the symptoms had grown gradually worse. There had been several severe convulsive attacks, one brought on apparently by the patient attempting to swallow a little milk, and he occasionally called out as if suffering severe pain. The pulse was 160, and the temperature 104.6°. During the night the spasms increased in frequency, seeming to occur without any external cause, and at 6 A.M. on December 15th the rigidity all over the body was very marked; he had had very little sleep, and had scarcely been able to take any nourishment. The chloral and bromide have been continued at regular intervals, one dose during the night being of double strength. He had been quite conscious till this time, but was suddenly seized with a severe convulsion, after which he became comatose, and never rallied. Death occurred at 9.30 A.M. Just before this the temperature in the axilla was 105.2°, and 108.4° in the rectum shortly after death. No *post-mortem* examination could be obtained, the coroner ordering the removal of the body a few hours after death.

REMARKS BY MR. ANDREW CLARK.—The antitoxin appeared to have no effect whatever in this case, five doses of 10 c.cm. at intervals of about six hours were administered, and this was supplemented by chloral and bromide, but the symptoms rapidly increased in intensity, and the patient succumbed in 74 hours from the first manifestation, and in nine days from the time of infection, assuming this occurred when the splinter entered the finger, but it may have been later, as the patient's occupation involved his handling vegetables more or less covered with garden mould. Although he took chloroform well, immediately afterwards the spasms increased in severity and frequency; this is the second case in which I have observed this.

KING'S COLLEGE HOSPITAL.

A CASE OF HÆMATURIA FROM A MOVABLE KIDNEY CURED BY NEPHRORRHAPHY.

(Under the care of Mr. WATSON CHEYNE.)

[For the notes of this case we are indebted to Mr. J. R. BENSON, Surgical Registrar.]

E. W., female, aged 40, unmarried, was admitted on June 16th, 1898, complaining of severe pain in the right hypochondriac and lumbar regions, occasional vomiting, and frequent passage of bright-red blood in the urine.

Previous History.—Her family and previous history apart from her present illness is unimportant. She was quite well and healthy till 1885, when she had a fall and hurt her back severely, and had to go to bed. The pain was somewhat relieved by the rest, but she noticed on first passing urine after the accident that it was bright red in colour. There were no clots, nor was it increased or decreased in amount to any great extent. After a day or two the pain became more localised, and of a dull, dragging character. It was after a few days chiefly situated in the suprapubic region, but subsequently in the back and right iliac region. She made no mention of this pain being referred to any particular spot, nor did she complain that she had any frequency of micturition at the time. Her medical adviser kept her in bed for about five weeks, and put her upon cold fluid diet, with the result that the pain in the side left her, and the bleeding ceased. Pain, however, still remained in her back, and this was increased on exertion and relieved by lying down. The urine from time to time was very dark coloured, and not always bright red as at first. Although the pain never left her for any length of time, she enjoyed good health until 1895, that is for ten years. In June, 1895, she became very unwell and out of sorts generally, and had to go away for a week's holiday. She returned in July, and noticed that she was again passing blood bright red in colour. This state of things lasted two months, during which time the pain in the back and side became much worse and kept her awake at night. She went to a Manchester hospital, and was treated medicinally and given a belt to wear. The hæmorrhage again ceased, and she saw no more of it until May or June, 1897, when it reappeared and lasted six weeks. Thus the interval this time was only two years.

History of Present Attack.—In November, 1897, the present attack of hæmaturia and pain came on and lasted without interruption until she came to the hospital in June, 1898, nearly nine months. She has never at any time noticed any variations in the amount of urine passed. Also she is quite positive that the urine is generally bright red, and only occasionally dark coloured. Only when she has had more exercise than usual is there any frequency of micturition, and on these occasions she only passes a little at a time. She has no pain during the act of micturition, although there may be a little just before, when she has had much exercise.

Condition on Admission.—The patient is a well-nourished woman, not neurotic, and with no uterine or ovarian troubles. There is tenderness on palpation over the right renal area, but no definite signs of movable kidney are present. The examination is, however, rendered difficult by the increased muscular resistance on that side. On account of the obscurity of the cause of the hæmaturia the patient was watched for some days. The urine was bright red and contained blood, but no albumen that the blood would not account for. The blood was well mixed with the urine, and the reaction was slightly acid. After being under observation for a few days the patient was examined under an anæsthetic. The right kidney could be felt more distinctly than the left, and was slightly movable. The urethra was then dilated and the interior of the bladder examined with Kelly's tubes, but nothing was found; the mucosa seemed healthy, and no increased bleeding followed the examination. Beyond the incontinence from the dilatation of the urethra the patient suffered no inconvenience from the examination, but the bleeding still continued. On a subsequent occasion, however, the blood was seen coming from the right ureter, and therefore Mr. Cheyne decided to expose the right kidney to find and if possible remove the cause of the trouble. All the other organs were apparently healthy.

Operation.—On July 13th Mr. Cheyne cut down upon the kidney from behind in the usual way, except that he as far as possible split the muscles in the direction of their fibres rather than cut them. The kidney having been exposed was drawn out of the wound without any difficulty, and carefully explored, first with a needle, and then by cutting through the cortex; no calculous growth or other lesion could be found, but the kidney was very movable. It was therefore anchored by stitches passed through its substance to the abdominal wall. The muscles were then stitched in their respective layers, and the skin wound sutured and dressed.

After-History.—The patient made an uninterrupted recovery, and left the hospital four weeks after the operation with the wound quite healed. The hæmaturia ceased entirely immediately after the operation; she also lost her pain. This patient has been seen several times since she left the hospital, the last time about the middle of December, when she said that she remained quite free from pain and hæmorrhage, and was able to be at her work again. Her general health is quite normal, and she is better able to follow her occupation than she has been for years past.

REMARKS.—Before the operation it was difficult to decide precisely as to the cause of the bleeding from the kidney. Symptoms of stone were entirely absent, and the length of time that the trouble had lasted and the slight degree of enlargement of the kidney seemed also to preclude tumour. For these reasons and the absence of symptoms, tubercle or other morbid deposit seemed also excluded. Hence we could only assume that there was some congestive condition of the kidney due to malposition or mobility, the injury in all probability having led to such displacement. The intermittent character of the bleeding pointed to mobility rather than permanent malposition, and this was confirmed by the ease with which the kidney could be moved and at the time of operation brought out of the wound. At the operation, nevertheless, great care was taken to examine the kidney and pelvis for any morbid condition (the urine was not examined bacteriologically), but none was found, and the immediate cessation of the hematuria on fixing the kidney seems to confirm the view that it was due to interruption of the venous circulation as the result of undue mobility of the organ.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

J. F. PAYNE, M.D., President, in the Chair.

Tuesday, January 3rd, 1899.

THE PRESIDENT, before the general business of the meeting, made a sympathetic reference to the death of Professor Kanthack, a prominent member of the Society.

PRIMARY CARCINOMA OF THE LIVER.

Dr. C. D. GREEN exhibited the above specimen. The new growth was of the spheroidal-celled kind, and was widely distributed through the liver. There were no growths elsewhere with the exception of the adjacent lymphatic glands. The gall bladder was not involved. The patient was a female who was attacked with paroxysmal vomiting about four months before death; later on pain was felt in the hepatic region, and then swelling occurred. There was no ascites, and no jaundice. Some localised peritonitis was found over the affected organ at the necropsy.

Dr. PARKES WEBER observed with regard to a certain degree of round-celled infiltration which was present in the portal spaces that such accompanied obstruction to the bile flow, and had been discovered within so short a space as three days after experimental obstruction; hence he inquired whether any such obstruction had been observed in Dr. Green's case.

Dr. GREEN could state that no absence of colour was noticed in the stools the week before death, but more than this was not observed in consequence of the constipation present.

APPARENT THICKENING OF SUBCUTANEOUS VEINS.

Dr. PARKES WEBER had made further investigations into the above condition, to which he drew attention at the last session of the Society. If the superficial veins, especially the internal saphenous, were examined in a number of rather cachectic men, the vessel walls in some cases felt as if they were thickened, and the vessels could occasionally be rolled about under the finger like thin solid cords. This apparent thickening, as far as could be judged from *post-mortem* examinations, seems to be due to a contracted condition in the veins, especially if the longitudinal bundles of unstriped muscle fibres, which constitute the inner portion of the tunica media, happened to be well developed. The relative amount of this longitudinal muscle probably differed considerably in different individuals. In transverse sections this inner muscular portion of the vessel wall was seen collected into ridges and projecting into the lumen, as if squeezed together by the circular muscle fibres which formed the main portion of the tunica media. When the vein during the hardening process had been kept artificially distended, this appearance of the sections was not found. The reasons why an apparent thickening of veins was clinically noticeable in men about 30 years of age, who were in hospital for some wasting disease, were probably the following: (1) The active muscular employment of a working man gives rise before the age of 30 to full development of the unstriped muscle in the walls of the superficial veins of the limbs; (2) the compulsory rest in hospital, diminishing the circulation of blood through the limbs, causes some of the superficial veins to be comparatively empty and contracted; (3) the wasting of subcutaneous fat consequent on disease allows the superficial veins to be more easily felt and rolled about under the finger.

Mr. **W. H. Bennett** had been clinically familiar for some years with this apparent venous thickening, and he had also found on microscopic examination an exaggerated condition of the muscular wall. He regarded it as physiological rather than abnormal, and as related to the amount of function the vessels had to perform. It was most common in young women about the ankles, and was often associated with, and perhaps related to, dysmenorrhœa. In a certain number of cases the condition was permanent, in others it was transitory, when the application of a hot sponge would cause the hardness to disappear. The speaker could not say what relation this cordlike condition bore to varicosity, whether, that is, it was a precursor of the latter. Clinical observation had led him to associate the condition in some patients with piles. Patients would assert that when the piles were well, after bleeding, the ankles would become painful. In one instance he had removed piles and found an enlarged and hardened saphenous at the ankle to account for the periodical pain the patient was accustomed to experience.

Dr. **Parkes Weber** had not been able to determine what relation such a condition held to varicosity; it might simulate thrombosis.

Two Cases of Intussusception.

Mr. **D'Arcy Power** recounted two cases which presented unusual features. One of these concerned a female infant, seized with sudden pain, vomiting, and the passage of blood-stained mucus from the anus. The advancing end of the intussusception was felt *per rectum*. Irrigation with warm saline solution having proved fruitless, the abdomen was opened. The intussusception was irreducible, and enterostomy was unsuccessfully performed. After death a large ileo-cæcal intussusception was found to have occurred; this was rendered irreducible by the remarkable association of a retrograde and second intussusception which had arisen about the primary, the retrograde being increased when the reduction of that within was attempted; that the second was *ante-mortem* was shown by the presence of early adhesions. In the second case, that of a boy 6 months of age, typical symptoms led to the adoption of laparotomy; reduction took place spontaneously on the parts being handled. The wound was closed, but the intussusception recurred with a fatal result.

Mr. **R. R. Lucy** reported a case, in a girl of 13, closely resembling the first of Mr. D'Arcy Power's. Laparotomy was performed and enterostomy, but death ensued a few hours later from toxæmia.

Congenital Deformities of Limbs.

Mr. **Richard Barwell** recorded the case of a girl affected with various deficiencies in the limbs, illustrating the subject by means of stereoscopic skiagraphs. The right hand and forearm were wanting, being represented only by a fleshy prominence bearing minute nail beds. The skiagraphs demonstrated the presence of two osseous processes in the soft parts. The author viewed the condition as due not to intrauterine amputation, but to arrest at an early stage before the digits had commenced to bud out. In the right lower limb the arrest concerned the thigh and femur. In the left hand the ring and little fingers were webbed. The author viewed all the arrests as arising from some affection of the central nervous system.

Mr. **S. G. Shattock** observed that this class of deformity called for no remarks, but that he wholly disagreed with the author in his assumption of a primary defect of the nervous system as the cause. In plants multitudes of examples not only of the duplication of parts but of arrest and of fusion, like those occurring in the human subject were encountered, and here to invoke the influence of a nervous system was obviously not possible. He had long thought that Weissmann's views, when they were applied to such a class of teratological phenomena, offered the best explanation; and he thought it more probable that irregularities in the division of the chromosomes and in the distribution of determinants lay at the bottom of these grosser changes, the cell errors occurring at a period when the development of large tracks or parts of the limbs were dominated by very few of the primitive cells.

Card Specimens.

Mr. **P. R. W. De Santi**: Central Fibro-sarcoma of the Os Calcis.—Dr. **Parkes Weber**: (1) Multiple Adenomata of the Kidney. (2) Fibrotic Kidney with Multiple Papillomata.

EPIDEMIOLOGICAL SOCIETY.

H. Franklin Parsons, M.D., President, in the Chair.

Friday, December 16th, 1898.

The Prospect of Abolishing Tuberculosis.

Dr. **Arthur Ransome**, F.R.S., read a paper on the prospect of abolishing tuberculosis. After referring to the errors incident to the registration of the causes of deaths which might perhaps be to some extent mutually corrective, he stated that the annual death-rate from phthisis had steadily declined from 3,800 per million in 1838 to 1,305 in 1896. Since 1861 this could be shown for each age period and for either sex, as in the table on p. 26 of the last return of the Registrar-General, and it was worthy of note that the decline had been more marked among females, the rates at all ages having been in 1861-70, and in 1896, for males 2,467 and 1,485, and for females 2,433 and 1,138, or a decrease of 40 per cent. and 54 per cent. respectively. If one took the age period of 15 to 35 years, these figures were 3,468 and 1,753 for males, and 3,911 and 1,592 for females, the latter having had the higher, but now showing the lower mortality of the two. The first great fall was observed in the period 1840 to 1850, when land drainage was being extensively carried out. The mortality then remained nearly stationary until 1867, since which time the decline had been continuous, corresponding with sanitary improvement, the better ventilation of houses and workshops, and the higher standard of living among the working classes, from which latter circumstance women who spent more of their time at home had naturally benefited more than men. Meanwhile no attempts at the repression of the disease, such as were suggested by the recent recognition of its infective character, had been attempted; but before undertaking such measures with a view to stamping it out, it was right to obtain some estimate of the amount of disease which had to be contended with. From the calculations of Drs. C. T. Williams, J. S. Pollock, and others, it might be concluded that there were in England and Wales over 160,000 consuptives, and perhaps 40,000 persons suffering from other forms of tuberculosis, or in the United Kingdom about 300,000 actually spreading the disease, besides a large number of concealed cases perhaps equally dangerous to the community, though not known to be so by themselves or others. Nor must one forget the hundreds of thousands of tuberculous cattle and other animals under less control than human beings, spreading the infection broadcast in various ways; above all the use of milk from such cows. The immense number of the bacilli, often two millions in a single expectoration, their tenacity of life, maintaining their vitality out of the body for several months, their resistance to ordinary disinfectants and desiccation, their association with other bacteria, the long incubation and the chronic character of the disease facilitating the spread of the infection, must also be taken into account. But on the other hand there was the rapidity with which the bacillus lost its virulence out of the living body, and perished when exposed to air and light, especially sunshine, the great resistance presented by the healthy organs and tissues of the human body, and the expulsion or destruction of the bacilli entering the respiratory tracts; the influence of hygienic treatment in the earlier stages of the disease, and its diagnosis, especially in cattle, by Koch's tuberculin, even in the absence of manifest symptoms. The predisposing conditions were all debilitating diseases, habits, and surroundings, especially pulmonary catarrh and irritation, inhalation of dust, deficient ventilation, overcrowding, and damp in dwellings. The outlook was encouraging; so much success had attended sanitary progress in the past that we should redouble our efforts towards the attainment of abundance of pure air and light in houses, workshops, places of public assembly, and the streets, the abolition of blind courts and alleys and back-to-back houses, and the increase of parks and open spaces; employing the machinery already used in the repression of infectious diseases, and educating the public to realise the danger inherent in the sputa of tuberculous persons. Notification followed by appropriate medical and hygienic treatment had been tried with some degree of success in New York, and was, though open to obvious objections, worthy of careful consideration. Disinfection of houses, fomites, and sputa should be inculcated, and after the death of a patient should be carried out by the sanitary authorities; isolation in the case of unteachable or destitute persons, and ampler hospital accommodation for such, especially for patients in hopelessly advanced stages of the disease, with sanatoria for those cases which were still capable of cure. Lastly, they must resolutely aim at the elimination of tuberculosis from their herds, especially of milch cows, for tuberculous milk was undoubtedly the cause of the increased mortality of infants from intestinal tuberculosis. Of course if all milk were boiled this danger would be obviated, but it was vain to hope that the ignorant, the prejudiced, and the careless would observe this precaution, and it would not meet the risk of infection in the cowsheds or do aught to diminish the standing danger arising from the prevalence of tuberculosis in herds. Professor Bang in Denmark had proved the possibility of eradicating the disease in dairy farms at no great expense, and Lord Vernon and others in this country had carried out the same procedure with complete and speedy success. It was only necessary to influence public opinion sufficiently to bring pressure on the farmers to follow this example, and by the use of the tuberculin test, and the isolation and gradual extinction of all reacting animals, to secure a race of cows wholly free from the least taint of the disease. Judging from the success that had already attended past efforts at the general improvement of the public health, and the great though undesigned reduction in the mortality from tuberculosis that had followed, they might confidently look forward to the practical extinction of this disease at no distant future, as the result of the persistent co-operation of the sanitary authorities, the medical profession, and the public in measures intelligently directed to the end in view.

A discussion followed, in which the **President**, Drs. **Hector Mackenzie**, **Kenwood**, **Whiteside Hime**, **W. A. Bond**, **Chr. Childs**, **Glover**, **Lyon**, Mr. **Shirley Murphy**, Mr. **Hunting** and others took part.

SOCIETY OF ANÆSTHETISTS.

Dudley Buxton, M.D., President, in the Chair.

Friday, December 16th, 1898.

The Choice of the Anæsthetic.

Mr. E. F. White opened a discussion upon the choice of the anæsthetic. He pointed out that while nitrous oxide gas was the safest, having an enormous tale of administrations without any deaths due directly to its influence, ether came next with a death-rate of 1 in 16,000, and chloroform last with 1 in 3,000. In healthy subjects he regarded ether as being practically without risk; under it reflex shock never occurred, and in this it contrasted favourably with chloroform. Prolonged operations were dangerous, as more anæsthetic was taken, and he appealed to surgeons to shorten manipulation whenever possible, and avoid undue delay before commencing the operation. Ether given before chloroform lessened the latter's dangers. The A.C.E. mixture he thought unreliable. In extremes of life chloroform was well borne, but was not free from risk. Ether, if properly applied, was well taken by even young children, and by old people provided organic disease was absent. When much mucus existed, or the rigidity of the thorax interfered with proper respiratory movements, Mr. White used chloroform. With regard to general disease, such as diabetes, he was guided rather by the individual state of the patient than by the character of the lesion. In acute respiratory trouble chloroform was probably best, but in chronic conditions he used ether whenever he could, and found even the most apparently unsuitable cases took it well. Chloroform in his experience caused as much lung trouble as ether. In cardiac affections he employed ether, but in cases of aneurysm he preferred chloroform. Light etherisation was, Mr. White submitted, the best anæsthetic for abdominal surgery. In ophthalmic and brain surgery chloroform was required, but for operations about the jaws, tongue, etc., it was his practice to commence with gas and ether and use chloroform subsequently, as in this way he thought shock was lessened, and the same method answered in removal of post-nasal adenoids. He employed ether in thyroidectomies, as his former practice of giving chloroform gave no better results and increased the risk.

Mr. **Edmund Owen** personally preferred chloroform, but was alive to its greater perils. He commented upon the risks incident to the practice so common of entrusting the anæsthetic to the hands of the inexperienced. He advocated some pronouncement from the Society which should guide those less experienced in their choice of an anæsthetic in special cases. The A.C.E. mixture he regarded as dangerous and uncertain and cocaine in the case of children at all events fell into the same category. In staphylorrhaphy, tonsillotomy, and the removal of glands from the neck there was great shock, and consequently children were peculiarly liable in such cases to succumb under the anæsthetic from heart failure.

Mr. **A. E. Barker** had for some time past felt an increasing fear of ether, especially in long abdominal operations. The surgeon was hampered and disturbed by it and could not work with due precision. He advocated more extensive trial of local anæsthesia.

Mr. **Herbert Allingham** believed ether was the safer anæsthetic, certainly so in rectal operations when there was an especial risk of reflex syncope. In abdominal sections he admitted chloroform gave the surgeon greater comfort.

Mrs. **Scharlieb** not only believed ether given in succession to nitrous oxide the safest, but considered that absolute quietude could be ensured by its proper administration.

Mr. **Walter Tyrrell** dwelt upon the personal preferences of surgeons and anæsthetists for particular anæsthetics, and mentioned the plans for obviating shock occurring under chloroform narcosis by the use of ether concurrently. Oxygen obviated the blueness sometimes found in prolonged etherisations.

Dr. **Silk** regarded special knowledge and skill in the management of the anæsthetic, the duration of the operation, and the posture of the patient as important points to be considered in selecting the anæsthetic. In children up to 3 years he gave chloroform, from 3 to 12 the A.C.E. mixture, from 12 to 60 ether, and for people over 60 he selected the A.C.E. mixture. This last anæsthetic he also chose in the case of the fat and plethoric. In acute lung disease chloroform seemed to answer best, but in more chronic cases he commenced with the A.C.E., and gradually increased the proportion of the ether as the operation became prolonged. He did not like ether in cases of uncompensated heart disease, or when the arteries were atheromatous. The A.C.E. mixture was, he thought, best in renal disease, in operations about the head and neck. Abdominal operations involving much shock required ether. Many of the alleged drawbacks to ether in such operations were probably more fanciful than real, and arose from the difficulties incident to the case; but these difficulties should lead the anæsthetist to assist the surgeon as much as possible in these cases.

The **President** having announced the receipt of letters from surgeons expressing their interest in the discussion, adjourned it to the next meeting of the Society on January 20th.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Sir John Batty Tuke, M.D., President, in the Chair.

Wednesday, December 21st, 1898.

Cases.

Professor Chiene showed two cases of osseous deformity: (1) Coxa Vara; and (2) Double Dislocation of the Hip.—Mr. **F. M. Caird** showed (1) a patient after Removal of Rectal Carcinoma by Parasacral Incision; (2) patient after Removal of Appendix and of Renal Calculus.—Dr. **Melville Dunlop** showed (1) a case of Double Athetosis in a Child; and (2) a boy in the Atrophic Stage of Pseudo-hypertrophic Paralysis.—Dr. **A. James** showed (1) Scleroderma in a young man; and (2) a case of Angio-neurotic Œdema of the Tongue in a little girl; there was enlargement of the cervical glands and pain in swallowing.—Dr. GRAHAM BROWN (for Dr. GEORGE GIBSON) contrasted a case of Bulbar Paralysis with one of Pseudobulbar Paralysis.—Dr. AFFLECK showed two cases of Friedreich's Ataxia and a case of Addison's Disease.—Dr. JOHN THOMSON showed a case of Hemiatrophy of the Tongue (of unknown duration) in a boy of 9.—Dr. GEORGE ELDER showed (1) in a boy of 6 Congenital Hemiatrophy of the Face, with malformation of the ear, mastoid, etc.; (2) a case of Senile Chorea in a woman of 54, with some mental enfeeblement.—Dr. W. ALLAN JAMIESON showed (1) Papulo-squamous Eruption, apparently Syphilitic, affecting the palms, in a man who had seven healthy children, the youngest of whom was 2½ years, the difficulty was to know how the man had become affected; (2) case of Psorospermosis Follicularis Vegetans (Darier's disease) in a boy; (3) results of treatment in a case of Tylosis in a young woman; (4) case of Elephantiasis in the left leg (beginning at the ankle) of a woman of 43.—Mr. J. B. HODSDON showed a girl from whom there had been removed a series of Neuromata from the Right Axilla; neuromata existed also in both palms and in the right side of the neck.

SPECIMENS.

Mr. D. WALLACE showed: (1) Renal Calculus; (2) Kidneys with Calculi *in situ;* (3) Fibro-adenoma removed from Prostate; (4) Portions of Prostate removed from three cases by Suprapubic Cystotomy; (5) Four Kidneys (three Tuberculous and one Malignant Adenoma) removed by operation; (6) Dermoid Cyst from Floor of Mouth; (7) Biliary Calculi removed by Cholecystotomy; (8) Microscopic Specimens of Tumours and of Prostate.—Dr. LOGAN TURNER showed a Skull with unusual development of Frontal Sinuses.—Dr. DOWDEN showed: (1) Specimen of Plexiform Neuroma; (2) Microscopic Sections of the same; (3) Specimen of Hydatids.—Mr. C. CATHCART showed: (1) An Abdominal Aneurysm which caused difficulties in diagnosis; (2) Multiple Abscesses in the Brain.—Mr. F. M. CAIRD showed Preparations and Drawings from an unsuccessful case of Enterectomy and Suture for Carcinoma.—Dr. WILLIAM ELDER showed: (1) Heart and Intestine from a case of Dysentery, with Ulcerative Endocarditis; (2) Brain showing Hæmorrhage into the Occipital Lobe; (3) Brain from a case of Word-Blindness.

EXHIBITS.

Mr. CATHCART showed Improvement on Microtome.—Mr. CAIRD: Needlecase for Sterilising Needles and Sutures.—Dr. GRAHAM BROWNE: A New Form of Æsthesiometer.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF PATHOLOGY.

J. A. SCOTT, F.R.C.S.I., in the Chair.

Friday, December 2nd, 1898.

SOME RECENT *X*-RAY WORK.

DR. HAUGHTON drew attention to the more important recent successes of the process, mentioning observations on normal changes in bone structure, and enumerating the successes of the process in congenital and acquired deformities of bone, in diagnosis, prognosis, and treatment of fractures and their sequelæ, dislocations, epiphysiary separations, diseases of bone in dentistry, and especially in the localisation of foreign bodies by the splendid apparatus devised by Mr. Mackenzie Davidson, referring in this connection to the accurate results obtained by Major Battersby, M.B. (T.C.D.), R.A.M.C., after the recent engagement at Omdurman. Further reference was made to applications in medicine in conditions affecting the outline of heart and aorta, and certain structural changes in lungs. The "traumatism" sometimes associated with *x*-rays was also discussed, and also the advantages of Roentgen process in medico-legal evidence, after which lantern slides illustrating applications of the process were exhibited.

Dr. SCOTT considered the reducing to figures the comparative lengths of exposure of different tissues was very interesting. The method of measuring the position of foreign bodies was of very great use, because the old methods were not in every way perfect.

Dr. LANE JOYNT said that recently some purely electrical experimenters had endeavoured to show that dermatitis was produced by any high electrical discharge quite independent of the *x*-ray tube. In the *Electrical Review* some time ago reports showed that one might exceed about 500,000 volts and get to 1,000,000 volts; that the risk of brush discharges in the neighbourhood was very great and that dermatitis frequently followed, and could be produced at will by any *x*-ray tension or power. He thought that a good deal of false blame had been laid to the charge of the *x*-rays; he himself had never seen a case of dermatitis.

Remarks were also made by Dr. E. J. MCWEENEY, Dr. MAUNSELL, and Dr. KNOTT.

Dr. HAUGHTON, in reply, said that Dr. Joynt's statement confirmed the opinion that very high tension currents were capable of producing skin injury. Referring to Dr. McWeeney's remarks, he said that he had been unable to obtain any good photographs of tuberculous consolidation in the apex of the lungs owing to the movements of respiration. Caseous material was rather transparent, considerably more so than pus, the latter being nearly as opaque as water. In calcareous deposits very considerable opacity resulted, as the calcareous salt contained lime whose atomic weight was about 40, and the higher on the atomic scale the greater the opacity. Phosphatic calculi were rather transparent, oxalic were the most opaque, and uratic intermediate. Cholesterin was extremely transparent. Regarding the relative transparency of tuberculous cases in comparison with normal, strumous subjects were often found with very transparent bones, probably due to a condition of malnutrition. There seemed to be possibly a smaller deposition of lime salts, perhaps associated with an enlargement of the cancellous tissue; but he himself thought the cancellous tissue presented a normal outline, while the transparency was greatly increased. In reply to Dr. Maunsell concerning fracture of styloid process of ulna in Colles's fracture, he agreed with the history of a fall from a considerable height in some cases; but people in falling on the hand were more likely to fall on the ulnar border, and that was a possible cause of fracture of styloid process of ulna. He had not observed dislocation backwards in Pott's fracture. Regarding Dr. Knott's question, the patient who suffered from fracture of olecranon process was about 35. In *x*-ray photographs he had not been able to establish more than one centre of ossification for the olecranon.

RUPTURE OF ASCENDING AORTA.

Mr. MAUNSELL read notes of a case of multiple aneurysms in a young woman, and showed the specimen. The report will be published.

SPONTANEOUS RUPTURE OF FIRST STAGE OF AORTA.

Dr. J. LUMSDEN showed this specimen. The young woman (aged 23) from whom the specimen was taken was brought dead into Mercer's Hospital in June, 1898. Very little information as to her previous health was obtained, but it would appear she was in apparently good health, and was seen in the active discharge of her duties as a shop assistant a few minutes prior to her death, and she was evidently in the act of lifting down a heavy box from a shelf when she suddenly dropped dead. At the necropsy the body was found to be fairly well nourished, abdominal contents normal, lungs normal. On opening the thorax the pericardium was at once seen to bulge forwards, and when incised was found to be quite full of clots. A small linear rupture, which just admitted an ordinary cedar pencil, was discovered at the root of the ascending aorta on its anterior aspect, immediately above the anterior sinus of Valsalva. When the interior of the vessel was examined a rent was found in the aortic tunics, commencing just above the junction of the right and left posterior aortic cusps, encircling the aorta parallel to the free margin of the valves, about 1½ inch in length. Except at the point of rupture in front only the intima and media were apparently involved in the rupture, and, doubtless, had not the outer coat given way anteriorly, a dissecting aneurysm might have resulted. Macroscopically there was no evidence of any extensive degeneration of aortic walls, or, indeed, of the heart either, but a few small opaque yellowish-white superficial and irregular patches in the endothelium and irregular patches in the endothelium and subendothelial tissue were to be seen. They projected slightly above the surface, and could be rubbed off in places from subjacent layers, which presented a normal appearance. The left ventricle was perhaps somewhat hypertrophied, but no evidence of valvular lesion was found. The condition was extremely rare, and it was his to understand how, in the absence of any evidence of advanced degenerative changes, rupture could have taken place. Microscopic sections were to be cut, and then possibly some light might be thrown on the subject.

Aneurysm of Ascending Arch of Aorta Extending into Lung.

Dr. W. J. **Thompson** showed this specimen. The patient from whom this specimen was got was a well-nourished man, aged 45, a builder's labourer. He was carried by the police into Jervis Street Hospital on November 13th, 1898, in a collapsed state, having had a severe attack of hæmoptysis while walking along the street. The upper part of the right lung, as far down as the fifth rib in the nipple line, was dull on percussion, no tumour on pulsation, but a slight thrill could be felt on palpation. The veins on the right side of the thorax were prominent and distended; there was no swelling of the arm or neck, and there was total absence of pain. The radial pulse on the right side was much weaker than on the left, and occasionally the patient completely lost his voice. There was no difficulty in diagnosing aneurysm of the ascending arch, extending into the right lung, and the case looked hopeless. The patient died suddenly after being three days in hospital. The specimen showed a sacculated aneurysm, embracing the upper half of the ascending arch, lying more posteriorly and laterally than anteriorly, behind the superior vena cava. It extended in an upward and outward direction for about 2 inches, its width being about the same as its length. The sac seemed at its commencement to be made up of pericardium and pleura, but at its apex it was made up of semi-consolidated lung tissue. The whole length of the aorta was studded with atheromatous patches, varying in size from that of a sixpence to that of a two-shilling piece. Evidently the aneurysm had its origin in one of those patches, and had suddenly burst into lung tissue. The two upper lobes of the right lung were consolidated.

Aneurysm of Descending Arch of the Aorta Perforating Œsophagus.

Dr. W. J. **Thompson** showed this specimen. The patient was also a builder's labourer, aged 47, and presented no appearance of wasting. When brought to Jervis Street Hospital on November 2nd, 1898, life was extinct, but blood was still oozing from the mouth and nostrils. The history given was that when attempting to lift a weight he suddenly collapsed, and that when he had fallen blood came from his mouth. He had never complained of pain about the back or thorax; never had any difficulty in swallowing; was always strong and healthy; had not missed one day's work for years. At the *post-mortem* examination he stomach and intestines as far as the ileo-cæcal valve were found full of blood. Corresponding to the level of the seventh dorsal vertebræ there was a ragged opening in the œsophagus about the size of a sixpence, placed rather posteriorly, laterally, and to the left. This communicated with an aneurysmal sac, which sprang from the aorta anteriorly, laterally, and towards the right. The opening between the aorta and sac had a diameter of about three-quarters of an inch. The sac itself was small, had thin walls, which seemed to be made of the outer covering of the aorta. There was only one small atheromatous patch situated in the transverse portion of aorta.

Dr. **Scott** said that the suggested influence of syphilis in aneurysm was a point of interest.

Dr. **Knott** asked Dr. Thompson the cause of death in the case of aneurysm which perforated the œsophagus. Aneurysms opening into serous cavities always burst suddenly, but into mucous canals the hæmorrhage was gradual. He thought that dysphagia in aneurysm was never very prominent, and was always incomplete.

Dr. E. J. **McWeeney** said that in Dr. Lumsden's case of rupture of the arch of the aorta it would be advisable to have a microscopic examination of the coats of the vessel in the neighbourhood of the rupture, because there could not be an effect without a cause.

Dr. **Lumsden**, in reply, said he would make known the result of the microscopic examination.

Dr. **Thompson**, in reply to Dr. Knott, said that *post-mortem* examination showed the stomach to be full of blood, which penetrated even to the ileo-cæcal valve. There were no symptoms of dysphagia, although the aneurysm must have pressed on the œsophagus.

CLINICAL SOCIETY OF MANCHESTER.

A. Hill **Griffith**, M.D., President, in the Chair.

Tuesday, December 20th, 1898.

Elephantiasis of Vulva.

Dr. Lloyd **Roberts** described a case of this affection. The patient was a married woman, aged 31 years, who had menstruated regularly, and who had never been pregnant. Twelve months previously the enlargement had commenced, and had progressed steadily. When the patient was first seen a large pendulous mass, about the size of a child's head, had been found growing from the labia minora. The mass had been removed under an anæsthetic, and the patient had made a good recovery. There was no history of venereal disease. Microscopic examination had shown that almost the whole mass was composed of fibrous tissue. The epithelium was thickened in places, and the blood vessels, which were few in number, showed evidence of endarteritis. These growths were usually caused by the irritation of venereal discharges or by traumatism. Their seat of origin was most frequently the clitoris, sometimes the labia minora or labia majora. In some cases great enlargement of the growth had been noticed during pregnancy, with return to the former size after delivery. Increase in size had also been noted during menstruation. Excision was the only treatment which was of any avail.

Suprapubic Prostatectomy.

Mr. J. W. **Smith** showed a man, aged 58, on whom he had performed suprapubic prostatectomy in July, 1898. Symptoms of hypertrophy had existed for four years, with severe cystitis and urethritis for several months previous to operation. Daily washing of the bladder for three months had given no relief, and the patient was sinking rapidly from toxæmia. A conical middle lobe, projecting for more than one inch into the bladder behind the meatus, had been removed piecemeal with forceps. A tube, retained in the suprapubic incision for two months, had been removed when the urine became normal, and natural urination recommenced. The patient had gained 25 lbs. in weight since the operation, could retain the urine for eight to ten hours, and micturition was prompt and forcible.

Cases of Mental and Nervous Disease.

Dr. E. S. **Reynolds** showed a large series of lantern slides, illustrating cases of mental and nervous diseases.

MANCHESTER THERAPEUTICAL SOCIETY.

Professor **Leech**, M.D., President, in the Chair.

Tuesday, December 20th, 1898.

The Various Kinds of Aloes.

The President read a communication on the action and uses of the various kinds of aloes, in which he pointed out the alterations which had been made in the preparation of aloes in the new *Pharmacopœia*, and showed that little if anything was known as to the comparative activity of the various kinds of aloes, two of which (Barbadoes and Socotrine) were official in Great Britain, whilst Cape aloes was the only official variety in some foreign pharmacopœias. Squire stated that Barbadoes aloes was one-third stronger than Socotrine, but gave no authority. Dobson and Tilden from their experiments concluded that Barbaloin was rather more active than Socaloin. Dr. Leech appealed to the members of the Society to aid in the investigation of the relative value of the different kinds of aloes.

The Treatment of Hæmatemesis.

Professor **Dreschfeld** opened a discussion on the treatment of hæmatemesis. Hæmatemesis was only a symptom; the cause might be extragastric and intragastric. Extragastric causes, such as hæmorrhage from the upper respiratory tract, or from dilated œsophageal veins, or from duodenal ulcer, might give rise to hæmatemesis. Hæmatemesis of intragastric origin might occur from various causes. 1. Trauma.—(*a*) Immediate. (*b*) Remote. (*a*) Injuries might give rise to immediate hæmatemesis which might be profuse or slight.

Such cases often got well with merely rest and milk diet. Gallic acid and other styptics might be used, but were not usually necessary. (*b*) Remote hæmatemesis might occur a few days after the injury, and was thought by some to be due to hæmorrhagic erosion of a vessel. It might recur and often led to gastric ulcer. The treatment was similar to that for gastric ulcer. 2. Hæmatemesis due to arterial hæmorrhage.—(*a*) Hæmorrhage due to gastric ulcer.—In these cases it was best to avoid giving food at all by the mouth, and even the ingestion of fluids was inadvisable. Even drugs by the mouth were better omitted, with the exception of turpentine, which Dr. Dreschfeld believed to be of decided benefit. It might be given in 10-minim doses three times a day in capsule or in emulsion with white of egg. Ergotin injections did no harm and might do good. Subcutaneous transfusion of salt solution might be beneficial, but Dr. Dreschfeld had found it difficult to administer in this way more than half a pint. Operative interference had been tried, the bleeding artery being tied, but this was only justifiable as a last resource. (*b*) Hæmorrhage due to toxic gastritis might be treated by giving appropriate antidotes. (*c*) Hæmorrhage in acute and chronic gastritis occasionally occurred, but rarely required treatment. (*d*) Hæmorrhage in cancer was rarely as free as in ulcer of the stomach. Bismuth might be useful to check the bleeding, and gallic acid, tannic acid, and turpentine might be used. (*e*) Hæmorrhage from persistent vomiting rarely required treatment. 3. Venous hæmorrhage might be due to obstruction of portal circulation, congestion of systemic veins (heart disease), and in diseases of the spleen. In hæmatemesis from portal obstruction, as in cirrhosis of the liver, the hæmatemesis might be great in quantity, the blood was venous in character. There was not so much collapse as after severe arterial hæmorrhage. Treatment.—No food except by rectum. Calomel was useful. Magnesium sulphate had also been given. It was a question whether digitalis might not be useful. Hæmatemesis in chronic venous congestion from heart disease required similar treatment. Hæmatemesis from splenic congestion might be sometimes due to alterations in the blood, but sometimes occurred in splenic enlargement, as in malaria. In Hodgkin's disease it was probably due rather to alteration in the blood than to venous congestion of the spleen. 4. Hæmatemesis due to alterations in the blood might occur in leucocythæmia, jaundice, pernicious anæmia, purpura, hæmophilia, scurvy, etc. Calcium chloride might often be recommended in cases of purpura, arsenic in pernicious anæmia, turpentine might be useful in many cases. 5. Hæmatemesis due to nervous causes might arise in epilepsy, cerebral tumour, hysteria, etc. In the last-named, it might be due to artifices and not from the stomach, but true hæmatemesis was sometimes found. In such cases gastric ulcer might be a possible concomitant. In hysterical cases there was not so much collapse and anæmia. 6. Vicarious menstruation as a cause of hæmatemesis was rare, but it might occur. 7. Hæmatemesis of the newly-born was usually slight. Melæna must always be looked for as well; it was usually marked. Hæmorrhage from other mucous membranes was frequently associated with it; occasionally a gastric ulcer had been found.

Professor **DIXON MANN** recommended physiological rest in the treatment of hæmatemesis due to gastric ulcer, no food by the mouth, and not even ice or iced water. He had found small hypodermic injections of morphine (not above ¼ gr.) of service. The only drug for arresting hæmorrhage in which he had any faith was turpentine. He had seen profuse hæmorrhage in cases of enlarged spleen with no trace at the *post-mortem* examination of any erosion of the vessels of the stomach.

Dr. **HOPKINSON** expressed his belief in the value of turpentine as a hæmostatic, though most cases did not require it. He endorsed Dr. Mann's opinion of the beneficial effects of small doses of morphine.

Dr. **WILD** pointed out that in cancer of the stomach hæmatemesis was not so frequent as books would lead one to expect. Ergotin and morphine hypodermically or opium and ergot by the mouth were useful in these cases. If severe, it was best to give nothing by the mouth. He was disappointed with the effect of calcium chloride in hæmophilia. He had given as much as 20 gr. three times a day with little effect.

The **PRESIDENT** remarked on the infrequency of death from hæmatemesis. He had seen one in a case of enlarged spleen. Most cases tended to stop spontaneously, which led one to doubt the efficacy of many of the drugs supposed to be useful. Rest was the great thing. He did not recommend much ice; he thought sips of hot water much better. Turpentine was probably of service; it certainly did no harm in small doses. Injection of ergot did no harm and seemed to do good; it did not appear to increase tension. Morphine injections were sometimes badly borne by young girls, often causing sickness and faintness. Calcium chloride was not a pleasant drug to take. He did not give it in hæmatemesis, but found it useful in hæmoptysis given along with syrup of lemon.

PATHOLOGICAL SOCIETY OF MANCHESTER.

R. B. WILD, M.D., President, in the Chair.

Wednesday, December 14th, 1898.

GLANDULAR CARCINOMA OF ŒSOPHAGUS.

PROFESSOR LEECH described a case of cancer of the lower third of the œsophagus invading one lung, pleura, and auricle of the heart. Microscopically it appeared to be glandular in structure, not the ordinary squamous epithelioma met with in œsophageal cancer.

INTRACRANIAL SUPPURATION OF OTITIC AND RHINITIC ORIGIN.

Dr. **MILLIGAN** read a paper entitled Some Observations upon the Pathology of Intracranial Suppuration of Otitic and Rhinitic Origin. He discussed the various paths along which infection might be conveyed from the middle ear to parts within the calvarium, detailing more especially the dangers of osseous erosions in and around the middle ear and adjacent mastoid cells, and the routes along which pathogenic organisms might travel—(1) minute venous trunks, (2) minute lymphatic trunks, (3) periarterial fibrous sheaths, (4) perineural fibrous sheaths, (5) fibrous septa running between the tympanic mucosa and the dura mater, (6) thrombosed vessels running through imperfectly ossified petrosquamosal and petromastoid suture. Various intracranial lesions were then considered in detail and from the pathological standpoint—for example, extradural abscess, subdural abscess, generalised meningitis, cerebral abscess, cerebellar abscess, suppurative encephalitis, and thrombosis of various intracranial sinuses. Various points in the pathology of the subject were illustrated by records of cases coming under the author's care. Numerous specimens and a series of limelight views were also shown.

CHELSEA CLINICAL SOCIETY.

J. FOSTER PALMER, M.R.C.S., L.R.C.P., President, in the Chair.

Tuesday, December 20th, 1898.

MITRAL STENOSIS AND ITS EARLY DIAGNOSIS.

DR. C. C. GIBBES read a paper on this subject. The question chiefly dealt with was, Are there no reliable signs by which we can diagnose pure mitral stenosis before it has advanced far enough to produce a presystolic *bruit?* He stated that some authorities referred to the advisability of suspecting it in cases where the first sound was short and sharp, others to a first sound of this character followed by a reduplicated second sound. He was unable to accept these signs by themselves, as they occurred so often in other diseases. In mitral stenosis there was a peculiar rhythm heard over a limited area, with or without a presystolic *bruit;* and when this persisted, or became intensified on lying down, in cases where the presystolic *bruit* had not yet developed, he considered it much more diagnostic—it consisted of a prolonged diastole, a short, slapping, abruptly-ending first sound, followed by a reduplicated second sound. He had directed his attention to this for the last two years, and had noted these characters in 192 cases while standing, 75 being cases of mitral stenosis in one or other of Sir W. Broadbent's three stages. In 76 they had entirely passed off on lying down, and in the remaining 41 they had persisted or become intensified in lying. Eight of these he had watched developing into ordinary mitral stenosis. He showed cases and tracings illustrating these points.

A discussion followed, in which Dr. **EWART**, Dr. **HERSCHELL**, and Mr. **BLUMFELD** took part.

Delirium Tremens Treated by Inhalation of Chloroform.

Dr. J. W. E. Mortimer mentioned a case of delirium tremens characterised by troublesome restlessness and prolonged sleeplessness, in which he administered chloroform, in the hope that the brain might be diverted from the vicious circle in which it seemed to be running, and that the hypnotics, which he found had already been given in large doses, might then have effect. The immediate result of the inhalation was six hours' continuous sleep, followed after an interval (during which the patient was quiet) by sleep lasting nearly the whole of the following day and night, accompanied by rapid recovery in all respects. Dr. Mortimer referred to two recorded cases in which similar results were attained, and said he thought chloroform might save time and strength, and be very useful in some instances if carefully administered. Troubles were apt to arise when anæsthetics had to be given to alcoholics for surgical reasons, but the conditions were somewhat different. In his own case there were no contraindications, and there were difficulties in carrying out other methods of treatment.

The President, Mr. Staveley, Mr. Morris, Mr. Gibbes, Mr. Blumfeld. and Dr. Vinrace also spoke.

Intestinal Obstruction due to Gall Stones.

Mr. C. A. Morris read the notes of a case on this subject. A woman, aged 60, who had five years previously had an attack of biliary colic without jaundice, was suddenly seized with acute pain in the epigastrium and severe vomiting; on the following day constipation set in and continued until the end. The vomited matter consisted at first of green bile, but became stercoraceous three days later. On the sixth day of obstruction he performed abdominal section, and discovered a gall stone blocking the ileum a short distance from the ileo-cæcal valve; he incised the bowel, removed the stone, and closed the incision with double suture. The patient rallied for a time, but died from exhaustion eight hours and a-half after operation. The stone weighed 3½ drachms, and measured 1 by 1¾ inch. From the notes of forty-two other cases reported during the last four years, he considered this to be fairly typical. He thought the diagnosis was always accompanied with much difficulty, the chief points which assisted being attacks of biliary colic, jaundice, and the discovery by palpation of the stone in the bowel; but in most cases the treatment required for ordinary acute obstruction was necessary, namely, abdominal section. Mr. Morris said the condition was very fatal, and that the statistics up to the present time gave no better results after operation than in those cases left to Nature. He remarked upon the proposal to break up the gall stone *in situ* with needles, but thought that at present general opinion seemed in favour of incision and suture.

Some remarks were made by the President, Mr. Staveley, and Dr. Vinrace.

British Balneological and Climatological Society.—At a meeting on October 31st, 1898, Dr. R. Fortescue Fox (Strathpeffer Spa), President, delivered an address on the Province of the Spa Physician. The descent of the spa physician was traced to the Minister of Asclepios, half physician and half priest, presiding over the "divinely appointed" springs. The gradual dissipation of the supernatural had followed, but the physician still intermediated between Nature and man. The spa practitioner was then considered as a specialist. He was concerned with an ancient art and a new science. It was important that he should realise what his position required of him. The elements of the spa treatment were accidental and essential. The latter were chiefly two—the mineral spring and the various agencies comprised under the general term thermal treatment. To these must be added climate, diet, and different forms of mechanical and electrical stimulations. The general uses of these elements of treatment were described. Speaking generally, spa treatment dealt with chronic conditions and with slight ailments—conditions which often eluded the general practitioners or for which medical advice was but seldom sought in ordinary practice. It was addressed to the removal of intractable and fluctuating constitutional states; it concerned itself with the earliest manifestations of disorder and the prevention of serious disease. Some common phrases of "disordered function" were described, and the use of balneological remedies in painful affections of the muscles, fasciæ, and joints. The misleading terms "rheumatism" and "rheumatic" should be abjured. The qualifications and equipments of the spa practitioner were described and the commonest dangers of spa practice. The spa physician was himself tempted to superficiality, to hurry in his work, to forsake the paths of science, and to become indifferent. He must remember that there was no oblivion. It had been alleged that balneological treatment was empirical. This allegation was examined. Science substantiated true empiricism. The privileges of the spa physician included the opportunity of co-operation with his medical colleagues, and especially in connection with such a Society as the Balneological, of contributing to the common stock of knowledge. The practical balneologist must always remember the psychological factor in his cases and in his treatment, which was addressed to the removal of disorders, in which sometimes the mind played an important part. Above all there must not be lacking to the physician a true intelligence of his patient, a personal regard and hope.

South-West London Medical Society.—At a meeting on December 14th, 1898, Dr. J. J. M. Dunbar, President, in the chair, Mr. H. Temple Mursell read a paper on Some Points in the Diagnosis and Treatment of Urethral Stricture. After referring to the causes of stricture and of the difficulty in treatment of traumatic stricture, and to the chronicity of disease of the urethra as a determining cause of stricture rather than its acuteness, the lecturer discussed the symptoms of stricture in detail: (1) Difficulty in passing water, the most common complaint, might be produced in adults under 50 by other causes than stricture, as by a diminished expulsive force, and in those over 50 the probability of enlarged prostate must not prejudice the mind against the possibility of stricture. (2) Diminution in the size of the stream usually came on gradually, but this might be found in cases of swollen prostate due to prostatitis or masturbation, or obstruction and dilatation of Cowper's duct. Impairment of stream and difficulty in micturition might be found in certain spinal cord lesions, and these were usually accompanied by dribbling of urine, at first at night and later by day, due to the accumulation of urine in an atonic bladder and later to the paralysis of the sphincter. (3) Hæmaturia, an infrequent symptom, when it occurred spontaneously, was most usually caused by bleeding about the neck of the bladder due to straining. Renal hæmorrhage might sometimes occur as the result of sudden loss of support from the distending urine when the latter was drawn off rapidly, and might be very alarming in its amount. In the diagnosis of stricture the usual *bougie à boule* was advocated, the use and advantages of Leiter's urethroscope explained, and the fallacies most commonly to be guarded against, as a swollen Cowper's gland or an impacted calculus, were referred to. As to treatment, beyond those strictures easily amenable to the usual process of dilatation with bougies, very small tight strictures might be safely negotiated by means of the tapering flexible "whips" introduced by Mr. Reginald Harrison, or, with more care, by flexible whalebone bougies, while for resilient and hard cartilaginous strictures internal urethrotomy must be adopted. Mr. Mursell advocated for this the use of the Maisonneuve type of internal urethrotome as most generally applicable, since it could be used without previous dilatation, his experience being that there was no serious danger from hæmorrhage to be feared from its use. A discussion followed, in which the President, Mr. T. A. J. Howell, Mr. Quiller, Drs. Roe, Mackintosh, Duke, Mr. Deas, Dr. Barkwell, and Major Mark Robinson, I.M.S., took part, and a cordial vote of thanks was given to the lecturer.

Glasgow Obstetrical and Gynæcological Society.—At a meeting on December 21st, 1898, Dr. Alex. Miller, President, in the chair, Dr. Edgar showed (1) Retroflexed Fœtus; (2) Exencephalic Embryo of four weeks; (3) An Anencephalic Embryo of four weeks; (4) A Placenta Duplex from a case of placenta prævia centralis.—Dr. Miller also delivered an interesting address on Twenty Years' Obstetric Practice. This embraced a consideration of 1,000 cases. He referred to many complications, such as eclampsia (2), placenta prævia (5), and to the operations he had performed, such as forceps (125), version (8), induction of premature labour (11). The most interesting of all the cases was probably the one of acute inversion of uterus produced by the woman in attendance dragging on the cord. Dr. Miller found no difficulty in reducing the inversion, which was complete. The fatal cases were six in number. The causes of death were enteric fever, phthisis, valvular disease of heart, cerebral congestion, placenta prævia centralis, puerperal septicæmia. The maternal mortality was thus really only 0.2 per cent., as in only the two last-mentioned cases could the fatal issue be attributed to the labour and puerperium.

NEWPORT MEDICAL SOCIETY.—At a meeting on December 7th, 1898, Mr. H. E. WILLIAMS (President) in the chair, Dr. GARROD THOMAS read notes of a case of Aneurysm of the Descending Aorta and showed the specimen.—Mr. C. BROOKE GRATTE showed (1) a case of Leucodermia; (2) a case of Nævus of the Tongue.—Mr. P. H. HACQUOIL showed a case of Spinal Irritation after Injury.—Mr. C. S. VINES showed a case of Muscular Atrophy following Accident.—Dr. R. J. PATON showed a case of Paralysis of Leg after accident.—Dr. THURNAM (Bristol) read a paper on the Open-air Treatment of Phthisis, describing especially the course followed by Dr. Walther at the sanatorium of Nordrach. The paper was of special interest, and Dr. Thurnam was heartily thanked for the same.

REVIEWS.

UEBER DIE WIRKUNG DES NEUEN TUBERCULINS TR AUF GEWEBE UND TUBERKEL BACILLEN. [The Action of the New Tuberculin TR upon the Tissues and Tubercle Bacilli.] Von Dr. H. STROEBE. Jena: Gustav Fischer. 1898. (Roy.8vo, pp. 114. M.3.)

IT is now more than eighteen months ago since Professor Koch introduced his new tuberculin preparations.[1] It cannot, however, be stated that subsequent experiences with tuberculin TR have been such as to lead to its extensive employment. The very first essential before such an agent can be universally used is that its action upon animals, both healthy and tuberculous, should be thoroughly known. From this point of view Dr. STROEBE'S work becomes a most important contribution to the subject, and his conclusions, based on minute study, are well worthy of attention. His experiments were carried out chiefly on the guinea-pig, which is very susceptible to tuberculosis, and a few only on rabbits. Their main object was the cure of animals already infected, but an attempt was also made to immunise animals against tuberculosis.

A few days after the animal was infected with a pure and virulent culture of the tubercle bacillus the injections of TR were commenced, and were repeated at first every other day. In another series of experiments as long a time as a fortnight elapsed before the injections were given. In one instance—a guinea-pig, which was allowed to live for seven months—two courses of treatment were instituted. There was an interval of three months between the two, and the animal was killed about a month after the commencement of the second course. The author then records his investigations into the course of the tuberculosis in these guinea-pigs under the TR treatment. He ascertained the action of the remedy upon the tubercle bacilli themselves by making inoculation experiments with the organs and tissues which showed signs of tuberculosis. The effects upon the organs were also investigated as well as the behaviour of the inoculation wound. The experiments as well as the naked-eye and microscopic appearances of the diseased organs are given in full detail.

In the first place Stroebe says that he has never been able to cure tuberculosis experimentally. The animals systematically developed the disease, which spread to the organs. It was only at a later period that any restraining action upon the extension of the tuberculosis became apparent. Two phases were noticed in the tuberculosis under the TR treatment: (1) An inflammatory and proliferative process in the tuberculous focus. This inflammatory reaction was less marked than in the case of the old tuberculin. The author does not look upon this reactionary phase as in any sense curative. (2) A development of a dense spindle-celled tissue, which took the place of the large-celled tuberculous tissue. Thus a cicatricial contraction of the organs was produced, and time was provided for regenerative changes. These later changes are really traceable to the diminished virulence of the tubercle bacillus under the tuberculin treatment. This diminished virulence is to be looked upon as a decidedly favourable action produced by the TR tuberculin. There was no question here of any killing of the tubercle bacilli and the tubercles in a general sense did not disappear.

In regard to the action of TR upon healthy animals Stroebe found distinct evidence of parenchymatous degeneration in the organs, but it was less marked than in the case of the combined tuberculosis and TR treatment. In the experiments upon immunity the author was unable to demonstrate any protective action against tuberculosis. Professor Koch, it is true, claimed that he was able to immunise animals against tuberculosis by the injection of tuberculin TR, but the full details of these experiments have not been published. Other investigators have been, like Stroebe, unable to confirm these conclusions, with the exception of Beck. This last-named writer has quite recently published his experimental researches into the TR treatment, but a sure immunising action was not definitely proved.

In Stroebe's experiments on rabbits the tuberculosis ran a more favourable course under the TR treatment than in the case of guinea-pigs, owing to the lesser susceptibility of the first-named animals. The author thinks that this favourable action is to be looked upon as supporting the view of the restraining effect of TR upon tuberculosis. The immunisation of healthy rabbits was not attempted, owing to the uncertainty of the development of tuberculosis in these animals after inoculation.

It is impossible to read Dr. Stroebe's excellent work without feeling how far we still are from an efficient bacteriological treatment of tuberculosis. The very threshold of the inquiry has hardly been crossed if it is still impossible to immunise animals with certainty against this dreaded disease. The great value of Dr. Stroebe's well-planned and carefully carried out investigation lies in the fact that the exact position of the subject is clearly set forth by it.

CLINICAL OBSERVATIONS ON 2,000 OBSTETRIC CASES. By G. PORTER MATHEW, M.D.Cantab., late Scholar of Trinity Hall, Cambridge, and University Scholar, St. Mary's Hospital, London: Simpkin, Marshall and Co. (Demy 8vo, pp. 71. 2s.)

DR. MATHEW has attended 2,000 cases of labour—mostly at Queen Charlotte's Lying-in Hospital; he has intelligently watched them, taken notes of them, analysed his notes, reasoned about them, and published the result in this most creditable little book. Although the author's limited experience may prevent those who study midwifery from thinking his opinions quite so weighty as those of distinguished foreign obstetricians who have spent the best part of their professional lives in the supervision of well-organised lying-in hospitals, yet he has given us one of the most considerable contributions to the science of midwifery that England has produced for a good many years. It must be matter of regret to many that our lying-in hospitals are so little used for the purpose of scientific observation.

Turning to a few of the practical points to which Dr. Mathew directs attention, we may note his commendation of the practice of manually rotating the occiput to the front in difficult occipito-posterior cases—a practice recommended by Ramsbotham, overlooked by most subsequent writers, and recalled to professional attention by Dr. Herman.

Dr. Mathew gives an original, and we think a reasonable explanation of the varying mechanism of dorso-posterior breech labours. He attributes the occurrence of hyperrotation or not, as the case may be, to the position of the shoulders with relation to the sacral promontory. If the breech rotates so completely that it is born with the bis-iliac diameter exactly in the antero-posterior diameter of the pelvis, then the front of the shoulder is in contact with the sacral promontory, and the body goes on rotating in the same direction as at first. But if the bis-iliac diameter does not rotate into the antero-posterior diameter of the pelvis, then the back of the shoulder meets the sacral promontory, and the trunk does not go on rotating, but moves back into the diameter it at first occupied.

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[1] BRITISH MEDICAL JOURNAL, April 10th, 1897.

A study of puerperal temperature charts has convinced Dr. Mathew that the accounts so often given of cases of puerperal septicæmia, in which the progress of the case is said to have been perfectly satisfactory until the third or fourth day, or even later, are probably erroneous. He has failed to find a single instance of perfectly satisfactory progress followed by septicæmia. There are always present signs and symptoms of mischief before the rigor. This is important, because, as Dr. Mathew says, if septicæmia is to be successfully treated, it is to these early symptoms that we must look for warning. The first thing in treatment is the early exploration and thorough evacuation of the uterine cavity, a method of treatment upon which undeserved discredit has often been brought because it has been deferred too long.

Lastly, we may mention that Dr. Mathew has given much trouble to improving the construction of the axis-traction forceps.

Leçons de Clinique Chirurgicale, faites a l'Hôtel-Dieu. Août-September, 1897. [Surgical Clinical Lectures delivered at the Hotel-Dieu.] Par Pierre Delbet, Professeur Agrégé. Paris: G. Steinheil. 1899. (Royal 8vo, pp. 376. 27 Illustrations. Fr. 8.)

This work embodies a series of twenty clinical lectures delivered by Professor Delbet. The subjects range from Dupuytren's contraction to appendicitis. Where all the lectures are of unusual excellence, it is a matter of some difficulty to select those which may be considered the best. Perhaps those on "Cicatricial Contraction of the Œsophagus," on "The Treatment of Hydatid Cysts of the Abdomen" (three lectures), and on "Congenital Thyro-hyoid Cysts" are in their vividness of description, conciseness of presentation, and apt illustration the most likely to impress the reader. That on "Dupuytren's Contraction" makes no reference to the work of Anderson, which is quite the most important contribution yet made to the subject. Two very interesting cases of complete twist of the whole of the small intestine and its mesentery are recorded. The condition is briefly mentioned by Albert alone among surgical authors. In discussing, as a pupil of Trélat, the operation of uranoplasty, M. Delbet advocates delay, and vigorously emphasises the importance of exercise for the palate muscles.

The lectures are, without exception, full of interest, and are written with a breezy freshness of style and with a candour that render the book unusually fascinating.

Osservazioni e Note Epidemiologiche sulla Recrudescenza della Epidemia di Peste Bubbonica in Bombay, nel 1897-98 [Observations and Epidemiological Notes on the Recrudescence of Bubonic Plague]. Per Drs. G. Galeotti e G. Polverini. Torino: Rosenberg and Seller. 1898.

In their 37 pages of letterpress and 6 illustrative tables and charts the authors have given a clear account of the course of the recrudescence of the plague in Bombay from July, 1897, to May, 1898. It is not overburdened with statistics nor prejudiced by the desire to prove or disprove any given theory on the subject; it aims solely at giving a plain unvarnished tale of what actually occurred. They point out the inverse relation which existed between the height of the temperature and the intensity of the epidemic, and by means of charts show that, contrary to what might be expected, the atmospheric conditions which appeared most favourable to the growth and development of the bacillus were just those in which the intensity of the plague was least and *vice versâ*. If this inverse relation between the temperature and the prevalence of the plague were universally observed throughout India, it would tend strongly to support the authors' view that the increase of plague was rather due to some adverse condition in the subjects than to an increase in number or virulence of the bacilli. It would then follow that treatment should be more strongly directed towards strengthening the resisting power of the organism than to the mere destruction of the bacillus, important as this is. In fact, in their conclusions, the authors say the course of the epidemic was very little if at all influenced by the energetic measures taken to cope with it, and that it decreased just when these—for example, separation of the sick, house-to-house visitation, disinfection, etc.—were less rigorously applied owing to disturbances in the city.

Flashlights on Nature. By Grant Allen. London: George Newnes Limited. 1899. (Crown 8vo, pp. 312; 150 illustrations. 6s.)

This little book is eminently suited to the country practitioner who has time enough and good taste enough to spend some of his rare leisure in the contemplation of Nature. Fortunately there are many men of this type in the United Kingdom. The wearied urban doctor may enjoy this work even more when he takes a rural holiday. Observation of the flora and fauna of the district is a most wholesome intellectual diversion, and the book will be found well fitted for boys, and is certain to interest all sound-minded adults whose rural tastes are above those of Bunyan's character, the man with the muck rake. There are some who say that certain men, not exclusive workers with that agricultural implement, are in these days "science hardened," so that Nature with a capital N does not appeal to them, and that "natural history" has been spoilt by science.

Mr. Grant Allen attempts, not without success, to make a judicious blend. Perhaps the most typical chapter in the book is the sixth, entitled, "Those Horrid Earwigs." Mr. Grant Allen shows that earwigs are not horrid. They do not spend their time in getting into people's ears; they are not ugly—on the contrary, they are very beautifully proportioned; and lastly, their tails are not made to hurt or frighten their foes, but to tuck the insects' wings under the elytra. A series of beautiful drawings demonstrates the process. Again, the earwig has an incomplete aspect. He is clearly above a flea, but less than a beetle or a butterfly. Mr. Allen indicates a long chain of transitional forms of which the earwig is but one link.

As with the chapter on earwigs, so with the others. The author treats of the ways of the ant and the spider. With these invertebrates we find ourselves in the best of company, including two monarchs at least. The relations of the ant to the aphis are charmingly detailed. As to the spider, many of us have verily imitated her even as did Robert Bruce. One of the ribs of that monarch is in the museum at Lincoln's Inn Fields, so that he has a certain posthumous relation to modern science, though his knowledge of the sex and habits of his mentor would not satisfy a modern entomologist. Mr. Grant Allen seems quite in his element when describing the singular behaviour of the spider to her prey and her suitors. He recalls Alphonse Karr's *Voyages autour de mon Jardin*, and Mr. Enock must be congratulated on his excellent drawings of the processes of web spinning and fly catching. The book is evidence that modern science has done no harm to "natural history," but on the contrary, has introduced into it some of the accuracy which was lacking. A lady writer lamented a year or two ago that the naturalist who loved Nature, like White of Selborne, was extinct. This is quite a mistake, as Mr. Allen's chapter on the butcher bird or shrike will prove. He minutely details its habits, but the resources of science enable him to understand more about it than the Rev. Gilbert White could have done. It is now known that this insignificant-looking bird does not winter in the South of France, but actually crosses the equator and passes Christmas in South Africa.

Karr's style was very charming but very Gallic; he was more anxious to please his public by similes about stamens and pistils, and by describing how the spider eats her sweethearts, than to instruct them about webs, nor was he always accurate. Kirby and Spence undoubtedly knew how to unite natural history and science, but their style was a little heavy for their purpose, though they were scrupulously correct in their statements, so that their famous *Entomology* really taught its readers. Mr. Grant Allen balances science and the observation of Nature as a pleasure perpaps more successfully than any of his predecessors in the same field.

NOTES ON BOOKS.

BOOKS ON CHEMISTRY.

CHEMISTRY, when properly taught, when, that is, practical laboratory work is made to go hand in hand with systematic lectures, is one of the best possible introductions to the study of the biological sciences. Unfortunately, like every other science which is made a compulsory subject in examinations, it has been exploited by the crammer, who too often resorts to shameless devices to force half-trained candidates to pass. Yet it is a subject in which a teacher who knows his business can induce most boys and lads to take an interest. We are, therefore, glad to welcome the second edition of *Practical Organic Chemistry*, by S. RIDEAL, D.Sc., F.I.C. (London: H. K. Lewis. 1898. 12 mo. Pp. 172. 2s. 6d.) the first edition of which was published in 1889. It contains a description of the tests that have been recommended for the detection of about fifty of the more important organic compounds (acids, carbohydrates, alkaloids, and neutral substances). The compounds whose properties are here described include those mentioned in the syllabus of practical chemistry for the intermediate M.B. examination of the University of London. The book may, however, be recommended to any medical man who wishes to have a handy work of reference on qualitative organic analysis. The more characteristic reactions are indicated by an asterisk. Alterations rendered necessary by the new edition of the *British Pharmacopœia* have been noted, and several compounds which were not included in the first edition of the book are now described. A feature of the book is the absence of a chart or table of analysis. The student is thus obliged to go through the various tests himself honestly, and, having learnt by experience their relative value, will be in a much better position for investigating a particular case than he who has merely learned a "table of analysis" by heart. The student who knows nothing of analysis beyond the "chart" will find himself utterly unable to cope with any case that had not been thought of by the person who drew up that "chart," and it is quite impossible for a chart maker to foresee everything, especially when he has to deal with organic compounds. The widespread use of these short cuts to knowledge have rightly brought "test tubing" into disrepute, and it is a hopeful sign that Dr. Rideal's little book should have attained a second edition.

The *Introduction to the Study of Organic Chemistry*, by JOHN WADE, B.Sc. (London: Swan Sonnenschein and Co. 1898. Cr. 8vo, pp. 480, 11 illustrations. 7s. 6d.) is intended for beginners, but covers the ground expected to be studied by candidates for university degrees. The author states that the proof sheets have been collated with Beilstein's standard work to ensure accuracy, and that his object has been to treat the subject experimentally, hypotheses being introduced as the facts require them. The relations between the structural formulæ of a parent substance and its derivatives are exhibited in a large number of diagrams resembling genealogical trees. If chemistry is to be of educational value, anything approaching vague or careless phraseology ought to be rigorously avoided in a textbook intended for students. Mr. Wade is not always mindful of this rule. Thus he says: "The theory of structure postulates that this is effected by actual linking, and that the atomic linkages may be symbolised by bonds." Surely this will be understood by a beginner in a grossly material sense. Would the author say that the earth was linked by one bond to the moon and by another to the sun? On the same page (63) we read: "Oxygen combines at the most with two other atoms." Doubtless the author omitted the words "one atom of" at the beginning of the sentence. On page 31 we read that, when acetic chloride is kept in a bottle in contact with sodium amalgam, it is slowly reduced by the moisture that enters. Would not the reader suppose that moisture was a reducing agent? The equation given for the preparation of acetic chloride has been shown by Dr. Thorpe to be incorrect. The somewhat bald statement on page 123 that ethylene oxide is a strong base would lead most students to suppose it was alkaline. On page 146 we read: "The crystals of optical isomerides are usually hemihedral, that is to say, *only* their alternate faces are developed" (the italics are ours). We were rather surprised to read that ether smells like peppermint only sweeter, and that the natural paraffins are all normal; further, it may be doubted whether nitroglycerine can be hydrolysed by alkalies to glycerol and alkali nitrate.

An Elementary Course of Practical Organic Chemistry, by F. C. GARRETT, M.Sc., and A. HARDEN, M.Sc., Ph.D. (London: Longmans, Green, and Co. 1898. Crown 8vo, pp. 80. 2s.) is especially intended for use in technical schools and colleges. It will, however, be found useful by anyone who wishes to improve his knowledge of organic chemistry by making a few "preparations." Careful details are given of the best way to prepare for oneself, without using expensive apparatus, such substances as marsh gas, acetylene, alcohol, oxalic acid, acetic ether, and urea. Illustrations are given of several of the processes, and the authors describe tests by which the purity of the products may be recognised. The descriptions are clear, and should be easy to carry out.

Mr. NEWTH is to be congratulated on having produced an exceedingly handy and well-arranged textbook in his *Manual of Chemical Analysis, Qualitative and Quantitative* (Longmans, Green, and Co. 1898. Crown 8vo, pp. 462. 6s. 6d.). Qualitative analysis occupies 188 pages, and although the various reactions are concisely described, yet they are so carefully explained that a student cannot help learning a large amount of scientific chemistry while engaged in his analytical work. In his letterpress Mr. Newth has avoided the use of what he calls "slang formulæ," such as H_2T for tartaric acid; but it is to be regretted that he has nevertheless constantly used formulæ instead of names. The student ought to learn that a formula indicates one molecule of a substance, and is not merely a shorthand way of writing a name. The care given to description of details of manipulation is very evident, and descriptions are further illustrated by photographs of operations actually in progress. Indeed, one would have thought that in many cases it was unnecessary to go into such minute details, except in a book intended for students not under the guidance of a competent teacher. The space employed in explaining how to place weights on the pan of a balance would, for instance, have been more usefully devoted to a description of the method of weighing by oscillations. In the account of the contents of a box of weights the reader is given an erroneous impression that riders always weigh a centigramme; the student should have been warned not to use one of Becker's riders on a balance by Oertling. Under quantitative analysis are described determination of metals and acids, some typical cases of separation, volumetric analysis, gas analysis, and ultimate organic analysis. The student should have been told that the method given for estimation of sulphur in organic compounds is not always trustworthy. Notwithstanding these few criticisms, this short textbook of analysis is much to be recommended.

MEDICAL SCHOOLS IN THE UNITED STATES.—According to the latest statistics of medical schools in the United States, Chicago ranks first in order as a medical centre, with over 2,500 medical students; Philadelphia comes second, with upwards of 2,300 students; New York shows a decrease in attendance from 1889 of almost 200, giving her the third place, with 1,900 students; St. Louis ranks fourth, with about 1,400 students; Baltimore has 1,300 students.

SMALL-POX IN CUBA.—A report recently made to General Wood by Captain R. S. Woodson, surgeon of the United States Army, who accompanied Colonel Hood's six companies to Gibara, states that there are more than 5,000 cases of small-pox in Holguin and its vicinity, and several hundred at Gibara. The disease prevailed epidemically for more than three years without interruption, the Spanish and Cuban authorities making little intelligent effort to overcome it. The type of the disease is most malignant and the recoveries few. The mortality is increased by the unhygienic modes of living. Captain Woodson advises sending no more troops till the epidemic is checked, or the isolation of the sick accomplished. He established at Gibara a small-pox hospital with 150 beds, and isolated 200 cases.

REPORTS AND ANALYSES

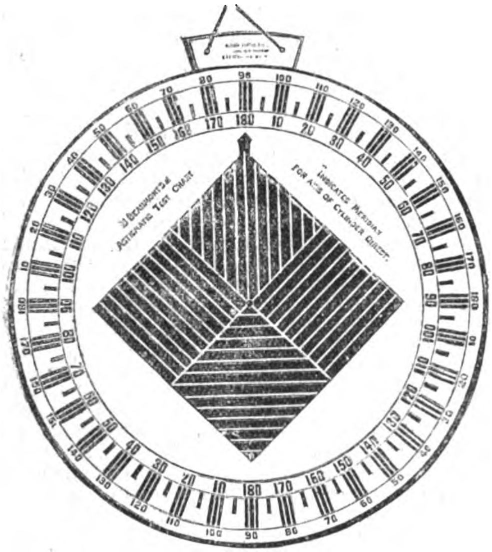
AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

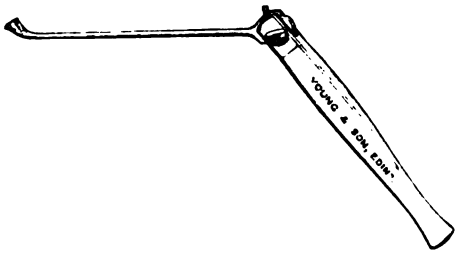
An Astigmatic Test Chart.—We have received from Messrs. J. Raphael and Co., 51, Clerkenwell Road, E.C., a specimen of an astigmatic chart invented by Mr. E. Beaumont, of Huddersfield. It consists of a stationary disc divided into radiating degrees numbered on an outer circle, and there is also an inner circle which is numbered in such a way that the degree numbers on the inner circle are those which are at right angles to the degree numbers on the outer circle. The chart has a revolving centre piece made in the form of a square, which is divided into four smaller squares, on which are black lines forming angles of 45°, 90°, 135°, and 180°, with the horizontal points. When the lines on the square to which the pointer is fixed appear the blackest and most defined, the number on the inner circle to which the indicator points will show the degree number on the trial frame at which the cylinder should be placed. This invention may simplify in a slight degree the finding of the angle of the cylinder, especially in those people whose appreciation of small differences is not great, though even here we are dependent on the patient's statements. This invention, though perhaps useful, is hardly likely to take a prominent place among the instruments which are already used in the estimation of refractive errors.


Beaumont's Astigmatic Test Chart
Indicates Meridian for Axis of Cylinder Correct.

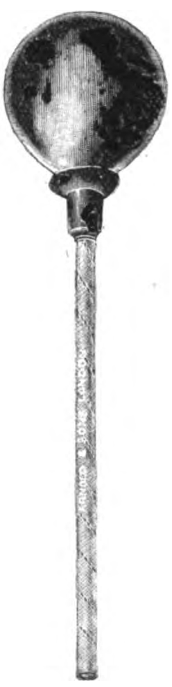
A Graduated Pocket Probe.—Mr. Collingwood Fenwick, M.R.C.S., L.R.C.P., L.S.A., has designed this instrument, by the use of which the exact dimensions of any wound can, he points out, be gauged. It was for this purpose that he utilised the idea of marking off into inches the ordinary silver probe in daily use. He thinks the graduated probe—which costs the same as the plain one—will be especially serviceable to those practitioners who, by the nature of their occupation—house-surgeons, police-surgeons, etc.—are frequently called upon to give evidence and to describe exactly the nature of injuries suffered. The instrument was made for Mr. Fenwick by Messrs. Down Bros., and costs 2s. in silver.

Pictet's Ethyl Chloride Spray.—Since the notice of this apparatus which was published in the BRITISH MEDICAL JOURNAL of September 3rd, page 635, Messrs. Christy and Co. have introduced a further modification which they claim as an undoubted improvement. Each tube has now two nozzles, one for a very fine spray, adapted for dental work, and the other an ordinary coarse spray. Whether the modification is so marked an improvement as the agents claim, or whether one nozzle is not enough for all ordinary work with the spray, is, however, open to doubt. At any rate, ethyl chloride is extremely volatile, and at ordinary temperatures in this country rapidly evaporates; unless, therefore, each cap fits its nozzle very accurately, the contents of a tube may soon be dissipated. The risk of this mishap, which to our cost we know to be a real one, is of course doubled by two nozzles being fitted to each apparatus.

Nasal Curettes.—These instruments, illustrated in the drawing, have been designed by Dr. G. Hunter Mackenzie, of Edinburgh, for the purpose of performing *curettement* of the nasal mucous membrane. Each curette consists of a handle and a blade jointed together in such a way as to permit of their being flexed to, and fixed at, any angle that the operator may desire. The curettes, of which there are five in a set, vary according to the size, shape, and angle of their scraping points. They have been made for Dr. Mackenzie by Messrs. Young and Sons, Forrest Road, Edinburgh.



A Urethral Syringe.—At the suggestion of Mr. Ralph Stoney, L.R.C.P.and S.I., Messrs. Arnold and Sons have made a urethral syringe which is a modification of one made by them for him, and described in the BRITISH MEDICAL JOURNAL last year. The syringe consists of a reservoir to hold ℥ ij, with a pipe 5½ inches in length (size No. 8 or 9 catheter). Mr. Stoney writes: The earlier form had the pipe channelled on the exterior to allow of the free return of the injection. I find this channelling can be dispensed with if my instructions for using the syringe are carefully carried out, which are as follows: The syringe being filled in the usual manner, the pipe is to be dipped in carbolic oil. Gently insinuating the nozzle into the meatus by a rotatory motion, the pipe is made to glide slowly in to its full length; no pressure is to be made on the penis, which is allowed to lie in the hand. The reservoir is to be slowly compressed, and the injection will be found to return by the side of the pipe. To the advantages which I claimed for this syringe in the treatment of gonorrhœa over other syringes, I may add that the passage of a pipe 5½ inches in length and stated diameter tends to prevent the possibility of stricture in the spongy portion. This syringe will be found much cheaper in price than my previous instrument, and, as the pipe is of gum-elastic, less formidable to a nervous patient. I have used this form of syringe for the last ten years in the treatment of gonorrhœa, and have found it most efficacious.



PERMANENT HOSPITALS FOR THE UNITED STATES ARMY.—It is announced that preparations are being made for the construction of pavilion hospitals on a large scale in Cuba. It has also been decided to erect a hospital of 1,000 beds at Fort Monroe, and another of the same capacity in Savannah; a hospital of 500 beds in San Francisco, and of smaller hospitals in various other localities, bringing the Government's total hospital capacity, exclusive of outlying possessions, up to between 5,000 and 6,000 beds.

AN ADDRESS BY DR. J. G. GLOVER ON THE PROFESSION AND THE GENERAL MEDICAL COUNCIL.

WE have received the following for publication:

FELLOW PRACTITIONERS,—I have always been of opinion that the chief way in which his constituents can judge as to how a direct representative discharges his duty is by reference to the part he plays and the work he does on the Council, but the absence of frequent opportunities of addressing any large number of one's constituents directly at any length on matters affecting the profession makes the use of occasional opportunities of doing so more agreeable to me as it is respectful to you.

I have headed my address, "The Profession and the General Medical Council." According to my view the profession is much greater than the General Medical Council, and the Council is only great in proportion as it reflects and represents all that is best in the profession. True, it is supposed not to represent the profession only but the State in its relations to medicine—relations which are growing in number and in gravity every day and which have no slight bearing on the subject of direct representation, as I shall hope to show. I think the present moment is a peculiarly fit one for reviewing our legal position, and considering where we are and what is our duty as a profession. Two or three prosecutions under the Medical Acts have lately taken place in which to ordinary lay minds the accused persons had glaringly violated the penal clauses. I refer particularly to the Norwich case, the Eastburn case in Scotland, and, last of all, the case of Steel in the county of Durham.

The boldest champion of the sufficiency of the existing Acts may well begin to have misgivings, and we are all practically agreed that the amendment of the Acts has become urgently necessary if the profession and the public are not to be injured grievously by the defiance of the most arrant quacks under cover of law apeing all the functions of medical practitioners, including that of giving certificates of all sorts and quasi-certificates of death, which are accepted generally by the Registration Department of the State. This monstrous state of matters is not the only reason why we should seek an amendment of the Medical Acts, and review the relations of the State to the profession. There are others. The complete breakdown in the legal provisions for securing universal vaccination and of the public arrangement for teaching students how to vaccinate are among the most grave facts of recent history. In spite of the compliments paid, and honestly paid, by leading statesmen to the medical profession, it has still to fight for the due recognition of its rights and of its authority as a factor in legislation. I tried to show at the recent meeting of the General Medical Council how much depends in the present crisis of vaccination lawlessness on the private and quiet influence of the medical profession, and I have no reason to complain greatly that the consideration of this view was rather deferred than rejected by members of the Council and by Sir Richard Thorne himself, who of course believes in the high official view of this great public question. But the full effect of this quiet influence of the profession through its general practitioners is hindered by the small number of such practitioners on the Council as direct representatives in proportion to the overwhelming numbers representing teaching and examining bodies. The effect of this "disproportion'd sin" is constantly felt by the direct representatives, the more so as there is no direct representation of members in the councils of the individual qualifying bodies, and but a very indirect and ineffectual representation in the councils of the universities. No opportunity should be lost of introducing the principle of direct representation into the government of the individual bodies and of extending the direct representation in the General Medical Council. It is only by such extension of the principle that the agitation of those who advocate it can be allayed, and that the full and beneficial influence of the profession as a whole can be brought to bear on medical education and on legislation for such amendment of the Medical Acts as is admitted on all hands to be necessary.

There may be differences of opinion as to the best means of securing the fuller representation of the profession in the General Medical Council. Some advocate a change in the law defining the individual bodies as consisting of Licentiates, Members, and Fellows, or, in the case of the universities, of the whole body of graduates. By this change it is supposed that the practitioners of the country would make themselves felt more effectually in the government alike of the individual bodies and of the General Medical Council. Others look rather to such changes in the charters or in the law as shall introduce direct representation into the medical corporations and extend it in the case of the General Medical Council. My own belief is that the reform will come sooner in the way of direct representation, which having been already conceded by Parliament in the case of the General Medical Council cannot reasonably be withheld in the case of the individual bodies. That the governing councils of these bodies should set themselves against such a reform has always surprised me. The opposition is a survival of the feelings which ruled in the Medical Corporation eighty years ago, and which was expressed by Mr. Abernethy as an answer to the just demands of Mr. Wakley and his followers for a reform of the constitution of the Royal College of Surgeons of England. The following words occur in the course of a document presented by Mr. Abernethy, and entitled, "Observations in Refutation of Charges publicly made by certain Members of the College against its Legally Constituted Authorities."[1]

"It is represented that the constitution of the College has been the cause of the alleged injuries and grievances.

"The evident object of this representation is the subversion of the present government of the College and the substitution of elections to offices of control and responsibility by members who for the most part exercise the professions of apothecaries and accoucheurs. There can be little doubt that in the event of such an innovation the institution would soon cease to be a College of Surgeons or of Surgery, and a system of continual intrigue and cabal amongst the profession in general would be introduced."

The existence of such feelings in the heads towards the rank and file of the profession two or three generations back was bad enough; it is now quite indefensible when the apothecary is also a surgeon in the eye of the law, if not a physician also—a point upon which we may have soon an authoritative legal deliverance—when there are no fine lines of demarcation between the different grades of practice, when the difference in the severity of the examinations of the various Examining Boards is less, and when degree and diploma alike constitute a licence to practise the art of medicine in all its three equal branches. Surely the time is fully come for the governing bodies of our great corporations to do tardy justice to their own members by giving them a voice in the management of their own corporations. Such an act of justice would do more than anything else to harmonise the profession and to raise it in the estimation of the public. It cannot be expected that the public should treat the profession with due respect when universities give their graduates and medical corporations give their members so little function, denying them all "offices of control and responsibility."

The feelings of distrust and disrespect towards the rank and file which are expressed in Mr. Abernethy's refutation surviving still in the corporations almost necessarily survive in the General Medical Council, which is made up so predominantly of the representatives of corporations and universities. But I have been long enough a member of the General Medical Council to believe that they are undergoing insensibly a considerable modification, and that with a little more mutual consideration between official and direct representatives a very valuable amount of harmony and cooperation between different sections of the profession would be reached which would tell immensely in advancing medical education and the social and political position of the profession.

It is only fair to say that even with its present constitution the General Medical Council has done something for the profession. It has, with a few regrettable exceptions, given a fair and respectful hearing to the direct representatives, and it has put them into its various committees and its offices of trust, it has wellnigh abolished the unqualified assistant. It has presented to the Government a unanimous report on the principles which should regulate legislation on midwives. If these should be adopted by the House of Commons "quacks" will be abolished and the practice of midwives will be shortly regulated by a board and all doubtful "labours" will quickly be brought under the notice of a registered medical practitioner. The General Medical Council has started fairly on a course for securing a fit preliminary education for those entering the profession. No doubt the Council has been late and long in accomplishing some of this creditable work, but let us generously admit that it has done it and that the chief promoters of it have not all or always been direct representatives, though these have taken an important part, and on one memorable occasion had their valuable work somewhat rudely appropriated by others. The General Medical Council further has slowly constructed a set of Standing Orders regulating *inter alia* the procedure of the Council in its penal action against any accused member of the profession, and requiring that such accused person shall be supplied with "the particulars" of the charge against him. It has lately, on the motion of Sir J. Batty Tuke, resolved that no case of complaint shall be considered by the Penal Committee until a statutory declaration as to the facts of the case has been supplied by the complainant. Finally, the General Medical Council, with all its faults, has some interesting features compared with other medical authorities. First, it is the only medical body which acts openly. Its discussions, with few exceptions, are open to the public, and are reported by the medical press and by a considerable section of the lay press. Secondly, the General Medical Council is in its composition a broad and comprehensive body. It represents all the medical authorities, the Crown, and, though imperfectly, the registered practitioners of the empire. I should gladly see it a smaller, but I should be sorry to see it a less representative, body than it is.

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[1] *Lancet*, May 30th, 1896, p. 1514.

These are a few features of the Council which make it an interesting body. However critical we may be we can afford to recognise them and admit that they tend to benefit the profession as well as the public. We may go further and admit that the profession has been benefited. I shall immediately speak of matters needing reform, but I should think it impolitic and unjust to be pessimistic in tone in speaking of the condition of the profession now as compared with the period before the establishment of the General Medical Council and not to recognise improvements in the status of the profession. The numbers in the profession are excessive, but the openings for medical work in the empire have been greatly multiplied by its growth and by reason of the development of sanitary legislation. It is difficult to compare the position of the medical practitioner now with that position prior to the Medical Acts. We are all apt to be oblivious of the grievances of former days, and to place our predecessors in idyllic conditions. But I should be sorry to exchange the conditions of the present day with those of the ante-Medical Acts period. There are many hardships now, but they will compare favourably with those of the former period, and I believe the position and the prospects of the medical man who does not adopt pessimistic theories to be better now than it was then. But with every disposition to allow that the General Medical Council is an interesting and useful body, and that its action has been such as to improve the education of the profession and its status generally, I must point out in conclusion some much-needed reforms in its own constitution and functions, and in the penal clauses of the Medical Act.

THE CONSTITUTION OF THE COUNCIL.

It is too large, and it is not sufficiently in touch with general practice for securing the competency of which it exists. Some of its most eminent members have said almost boastfully that they have never attended a midwifery case. A body which has generally met the demand for an increase in direct representation with the blank proposal of the previous question must be defective in its sympathies with a profession from which it derives its own honour and importance. I look upon the creation of the Conjoint Examining Boards by the Act of 1886 as the first step towards a one-portal system under which there will not be the case or the need for the individual representation on the General Medical Council of all the examining bodies conjoined for purposes of examination; they should be conjoined for purposes of representation. This reform would create vacancies which might be filled with non-direct representatives. My belief is that both as an educational and a disciplinary body the Council would be improved by such a change in its constitution.

THE FUNCTIONS OF THE COUNCIL.

The supervisory duties of the Council in respect of medical education and the standard of examination have reference only to the maintenance of a minimum standard securing a bare competency to practise. The Council has no power to inspect examinations of a higher class as such, or pretending to be of a higher grade. It seems obvious that some body of the profession should have the power and duty of inspecting and reporting on the nature of such ostensibly higher examinations, carrying generally, at any rate, higher titles than attach to the ordinary diplomas. Surely no body can so fitly be endowed with such powers as the General Medical Council, in which by its very constitution all bodies are represented.

THE LAX STATE OF DEATH REGISTRATION.

One of the most urgently needed pieces of legislation is that which would make it essential for the registration of a death to have either the certificate of a registered medical practitioner or that of a coroner as to the cause of death. Pending such legislation, there are large districts in which a statement of the cause of death by a herbalist or any other quack seems as valid for registration purposes as the certificate of a medical man. The Council has taken, partly at my instigation, much trouble to bring this amendment about. The President (Sir William Turner) has been most painstaking in his communications with Government. So far nothing effective has been done. But the Council is still vigilant and active in the matter.

THE PENAL CLAUSES OF THE MEDICAL ACTS.

I have already referred to the glaring inefficiency of Section XL of the Medical Acts as illustrated in the cases I have mentioned. The failure in some of the cases many have been due to the faulty way in which they have been prepared, but this will not suffice to explain all. The uncertainty of getting a verdict is so great as to invalidate the Medical Act of 1858 in its chief purpose, namely, that of "enabling persons requiring medical aid to distinguish qualified from unqualified practitioners." To facilitate such a distinction is surely the very least that law can do for a profession on which it lays such heavy burdens of education and duty. It should do much more. It should punish not only the assumption of all misleading titles by unqualified practitioners, but all practice by them as being essentially against the public interest. Apart from legislation or any change in the constitution of the General Medical Council there are reforms of procedure, penal and general, which would expedite the Council's business. I supported most of the proposals to this effect by Mr. Horsley at the late meeting. I have long urged an enlargement of the Penal Committee and more frequent meetings of it—so far unsuccessfully. Mr. Brown advocated the delegation of the penal business, in the first instance at least, to the Branch Councils. I supported this proposal. But so far we have not succeeded in any plan for making this committee so large and representative as it ought to be. We have, however, succeeded in making it liable to change by annual election.

On the whole, I am not hopeless of considerable reforms. But even with the present constitution of the Council, if they are to be achieved two things are necessary. First, that some attempt be made to secure union in the Council and in the profession. If this cannot be procured, we may give up all hope of any help from Parliament or ministers. Unless we appeal to Parliament with a united front we had better abandon all hope of legislation. Next to union in the Council and in the profession our best hope of amendment in the Medical Acts is in making practical proposals. The extreme reformers and the extreme admirers of things as they are neutralise each other and stop all progress. Parliament is heavily handicapped with work, and has a great dislike to undertake medical legislation. Such legislation appeals to no mere political interest, and past and recent experience may well suffice to show us what blind forces may be let loose in opposition to the claims and the authority of those who represent medical science. But if a strong committee could be appointed and could agree on reasonable changes in the Medical Acts, we might succeed in getting a short amending Act through. For some of the reforms which I have advocated we can scarcely expect the support of the representatives of the bodies. They will have to be achieved from without. But for others I am not hopeless of such support. The General Medical Council is realising its great functions more and more every year. However small the number a member represents, he begins to realise that the profession is great, and that the Government and the public and the profession itself look to the General Medical Council to perfect its efficiency and its conduct.

NEW YEAR HONOURS.

Sir Henry Thompson, Bart.

Sir Henry Thompson, upon whom the Queen has conferred the dignity of a baronetcy, was born at Framlingham in Suffolk in August, 1820. He received his medical education at University College, London, and took the degree of M.B.Lond. in 1851. In 1853 he became a Fellow of the Royal College of Surgeons of England, and in 1856 was appointed Assistant Surgeon to University College Hospital. He became Surgeon in 1862, a post which he retained until 1874, and he is now Consulting Surgeon to that hospital. He early turned his attention to the study of diseases of the male urinary organs, and in 1852 obtained the Jacksonian prize for an essay upon "The Pathology and Treatment of Stricture of the Urethra," and again in 1860 was awarded the same prize for an essay on the "Healthy and Morbid Anatomy of the Prostate," which was the foundation of his well known work on the diseases of that body, a sixth edition of which appeared in 1866. Perhaps the most striking episode in Sir Henry Thompson's career was his attendance upon the first King of the Belgians, the uncle of our Queen. The King was staying at Buckingham Palace about Christmas, 1862, and consulted Sir Benjamin Brodie, who found a stone in the bladder, and being asked who should operate replied, "Before all men, Civiale, of Paris." Mr. Henry Thompson, being asked the same question, made the same reply, having studied with Civiale in Paris. The great French surgeon was accordingly summoned to the King, and many sittings for lithotrity were held, but some fragment still remained in the bladder. The King was afterwards attended by Langenbeck. Finally, the King asked Queen Victoria to recommend an English surgeon. Mr. Henry Thompson was selected, and eventually obtained the King's consent to submit to a further operation, and at the second sitting the bladder was completely emptied, and the distinguished patient entirely recovered from his affection. Sir Henry Thompson received the honour of knighthood in 1867, and with the tact and fine feeling which distinguish him wrote to Civiale that he had really completed the King's cure by the hand of his very grateful pupil Henry Thompson. Civiale returned the compliment by demanding and obtaining from the Académie de Médecine the Prix d'Argenteuil for Sir Henry Thompson's work on the Prostate. Sir Henry Thompson in 1874 operated on the Emperor Napoleon III, but the condition of the patient forbade the hope of a successful issue. In addition to his works on surgery Sir Henry Thompson has written on many subjects on the borderland of medicine and literature, and has in particular dealt with the practical side of diet in a long series of essays, and in his well-known book on *Food and Feeding*. His work with regard to cremation is too well known to need more than passing reference, while we recently had to record that his interest in astronomical studies had led him to present an equatorial telescope to Greenwich Observatory. He is also an artist of no little skill, and many paintings of his have been exhibited at the Royal Academy and in the Paris Salon. Finally, it may be said that he has been for more than a generation the friend of men most distinguished in art and in literature, and that at his round table have gathered many famous guests, including Thackeray and Dickens.

Sir Hermann Weber.

The Queen has been pleased to confer the honour of knighthood upon Dr. Hermann Weber, Consulting Physician to the German Hospital, London. Dr. Weber was born in 1823, and studied at Marburg and Bonn. He took his degree in the last-named University in 1848, and was then appointed Assistant Physician at the University Hospital of Bonn. In 1851 he became resident to the German Hospital, Dalston, and two years later was elected Honorary Physician to that hospital; in 1889 he was appointed Consulting Physician. Some years ago he was elected Consulting Physician to the National Hospital for Consumption at Ventnor. He became a Member of the Royal College of Physicians of London in 1855, and a Fellow in 1859. In 1885 he delivered the Croonian Lectures before the College on the Hygienic and Climatic Treatment of Pulmonary Phthisis, which have been translated into several other languages. He has occupied himself, by predilection in questions concerned with the prevention and treatment of disease, especially tuberculosis, by diet, hygiene, climate, and waters, and is the author (jointly with his son, Dr. Parkes Weber) of an admirable work on *The Mineral Waters and Health Resorts of Europe*. He has also contributed many papers to the *Transactions* of the Royal Medical and Chirurgical and the Clinical and Pathological Societies of London. He is also an honorary or corresponding member of several foreign medical societies in Europe and America. Dr. Weber, who has long been a naturalised English subject, has identified himself thoroughly with the country of his adoption, and his friendship has been valued by many of the most eminent men who have been distinguished in medicine during the last generation, such as Addison, Parkes, Jenner, Russell Reynolds, Wilson Fox, and Erichsen, while to enumerate the names of his friends among the living would be to compile an immense list, for few men are more esteemed for qualities of mind and heart. Sir Hermann Weber's hobby is the study of Greek numismatics, and he at once indulged his hobby, testified his reverence to the memory of his friend Dr. Edmund Alexander Parkes, and displayed his affection for the Royal College of Physicians of London, by founding the Weber-Parkes medal in 1894. This medal, together with a sum of 150 guineas, is awarded every third year to the writer of the best essay on Consumption and its Treatment. It was first awarded in 1897 to Dr. Arthur Ransome, F.R.S., and at the same time a second medal was awarded to Dr. Peter Paterson, of Glasgow.

Sir George Plunkett O'Farrell.

Dr. O'Farrell, upon whom the Lord Lieutenant of Ireland will, with the approval of Her Majesty, confer the honour of knighthood, is a graduate of Trinity College, Dublin (1869), and a member of the English College of Surgeons. For some years he was in practice in Boyle, co. Roscommon. He was then appointed an inspector under the Local Government Board, and subsequently Inspector of Industrial and Reformatory Schools in Ireland. From this he was promoted to be Medical Commissioner of Prisons, and finally he became one of the two Inspectors of Lunatic Asylums in Ireland, an office which he now holds. He is also a Commissioner of the Board of Control. He had a distinguished University career, and he is a popular official.

The Order of the Bath.

Sir Charles Cameron, on whom Her Majesty has conferred the C.B., is Medical Officer of Health for the city of Dublin. He is an ex-President of the Royal College of Surgeons in Ireland, and Professor of Chemistry in the School. He has devoted himself to the study of public health and chemistry, and he is well known throughout the country. During the past year he was President of the Congress of the Royal Institute of Public Health, which was held in Dublin. He is a member of many learned societies.

The Star of India.

Colonel William Pleace Warburton, who has been appointed C.S.I., joined the Indian Medical Service in 1866, and served chiefly in the Civil Department until he became in 1895 Inspector-General of Civil Hospitals, North-Western Provinces and Oude. His excellent administration of civil medical institutions of these Provinces obtained the repeated thanks of Government. He has recently retired.

Colonel David Sinclair, who has received the same honour, entered the Indian Medical Service in 1869, and since 1871 has served in Upper Burmah. From 1884 he has been Inspector-General of Gaols and Chief of the Civil Medical Department in Burmah.

The Order of the Indian Empire.

Lieutenant-Colonel Henry Kellock McKay, who has been appointed C.I.E., entered the service in 1873, and since 1894 has been Civil Surgeon and Superintendent of the Lunatic Asylum at Jubbulpore in the Central Provinces. This officer was employed on famine duty during 1897-98.

Major Winthrop Benjamin Browning, who has received the same honour, joined the service in 1880, and was posted to the Madras Presidency. Until 1890 he served in Madura, and from that year he was Surgeon of the Second District, Madras, until 1895. From 1892 he has been Surgeon to the Governor of Madras.

Order of St. Michael and St. George.

Dr. T. E. Macpherson and Dr. R. N. Moffatt, of the Uganda Administration, have been appointed Commanders of the Order of St. Michael and St. George.

LITERARY NOTES.

The third volume of the second series of the *Index Catalogue of the Library of the Surgeon-General's Office, United States Army*, consists of 1,100 pages of text, and carries the vocabulary through the letter C. The librarian, Surgeon James C. Merrill, states that it gives 11,112 author titles, 10,636 book titles, the titles of 34,314 journal articles, and those of 677 portraits.

A correspondent has called our attention to a curious misprint by which the late Dr. Gruby, of Paris—a short account of whom appeared in the British Medical Journal of December 3rd, 1898—was apparently charged with making up his mixtures with *aqua fortis*. Of course the eccentric but blameless old Hebrew prescribed *aqua fontis*. We think it due to his memory to make the correction, though probably not even the most frenzied anti-Semite would take the appalling statement put into our mouths by the printer's devil *au grand sérieux*.

With the new year the *Practitioner* comes to us in a somewhat enlarged form. We are glad to note, however, that although it has grown bigger it has not become heavier. It remains the most readable and the most literary of the medical monthlies. Among the new features are some pages of Literary Gossip, and a Calendar in which the heroes and saints and the historic events are all of specially medical interest. Among the original communications are an article on Tuberculosis by Professor Clifford Allbutt, in which the subject is dealt with in a characteristically independent spirit; an interesting case of Jaundice of sixteen years' standing treated by operation recorded by Mr. Treves; and a Clinical Lecture on the "probably cortical origin of some laryngeal paralyses" by Sir Felix Semon.

Two further instalments of the *Deutsche Chirurgie* (Ferdinand Enke, Stuttgart), started by Billroth and Luecke and now in course of publication under the editorship of Professors E. von Bergmann and P. von Bruns, have just been issued. Lieferung 28 is an exhaustive treatise on the Diseases of the Bones and Joints exclusive of those due to Tuberculosis, by Professor Karl Schuchardt of Stettin; the volume contains 138 illustrations in the text and two coloured plates. Lieferung 28a is devoted to Tuberculous Diseases of the Bones and Joints, which are dealt with by Professor Fedor Krause of Altona; this volume also contains two coloured plates with 98 other illustrations.

A periodical of a decidedly novel character has recently been started in Paris. It is entitled *La Revue des Rhumatisants*, and its aim is the solace and amusement of sufferers from rheumatism. The founder is M. Alexander Hepp, eminent as a journalist and equally eminent as a martyr to rheumatism. All his collaborators are fellow sufferers. Among them are François Coppée, Jules Clarétie, Marcel Prévost, Aurélien Scholl, Emile Bergerat, Léon Daudet, Clovis Hugues, Coquelin the younger, and Caran d'Ache the celebrated caricaturist. This list would appear to suggest some close connection, hitherto unsuspected, between rheumatism and the finer arts. The matter seems to be worth investigation, and if any young physician is "spoiling" for want of a subject to work at, here is one that would be pretty certain to reward his toil.

We have received an intimation from the Medical Magazine Association that at a meeting of directors of the newly incorporated Association on December 21st, 1898, the Medical Board appointed Dr. A. G. Auld to be editor of the new magazine which begins in January.

In mentioning Sir Thomas Grainger Stewart's "Chronicle Play," we referred to the fact that Claude Bernard had begun his career as a dramatic author. Some details of the great physiologist's association with the stage may be interesting. Bernard, after finishing his literary studies, became the pupil of a pharmaceutical chemist of Lyons, who gave him board and lodging in exchange for his services. Every month he had "a day out," of which he took advantage to go to the theatre. He soon became fired with the ambition to write plays, and in the scanty moments which he could snatch from making pills and putting up bottles of physic, he managed to compose a vaudeville entitled *La Rose du Rhône*, which was actually performed at Lyons in 1833. The author's share of the profits on this masterpiece amounted to some £4, and with this capital and a tragedy in five acts young Bernard determined to seek his fortune in Paris. On his arrival there in 1834, he called on the most powerful critic of the day, M. Saint-Marc Girardin, who seems to have cured him of his dramatic aspirations. The tragedy on which Bernard had built his hopes was printed in 1887 by his friend M. Georges Barral, to whom the author had given the manuscript some ten years before. The title of the piece is *Arthur de Bretagne*. The scene is laid in Brittany, Poitou, and Normandy in 1202. Arthur comes forward as a champion of the independence of Brittany, and naturally his relations with the King of France on the one side, and with the King of England on the other, become extremely complicated. The English monarch with the proverbial perfidiousness of his countrymen breaks his pledge and places Arthur in durance vile. He is offered his liberty on condition that he surrenders his province, but prefers death to dishonour. The French suddenly come to the rescue, singing the Ave Maris Stella, but, like the first Khartoum expedition, they are just in time to learn that Arthur has been butchered by the brutal Britons. Bernard seems to have a certain tenderness for this piece, which was written when he was only 20, for he authorised its publication, though not till five years after his death. It was published, but was almost immediately withdrawn in deference to the remonstrances of Mdlle. Bernard, who objected to a statement made in the preface that her father had been abandoned by his wife and daughters in the last years of his life.

Bolton and District Association of Colliery Surgeons.—This Society, which owes its existence mainly to the efforts of Dr. J. H. Marsh, of Little Hulton, has for its object the banding together of all the colliery surgeons of the district, with a view to increasing and equalising the remuneration for attendance upon accident cases. Prior to the Workmen's Compensation Act this was at the rate of 2s. 6d. a head per annum, but thanks to the combination of the surgeons the fee is now 15s. a head per annum. Though the new scale has been generally adopted by the colliery clubs, attempts are now being made to coerce the surgeons to revert to the old terms. These are being strenuously resisted by the Association and with every likelihood of success. The annual dinner was held at Walkden on December 22nd, 1898, when forty-five members and guests assembled under the chairmanship of Dr. Duncan (Honorary President), who gave the toast of "The Queen." "The Association" was proposed by Dr. Nathan Raw, of Liverpool, and responded to by Dr. Kershaw, of Farnworth. "The Guests" was proposed by Dr. Johnston, of Bolton, and "The Pendlebury Association" by Dr. R. Martin and acknowledged by Dr. Eames. During the evening Dr. J. Y. Martin, on behalf of the members of the Association, presented the Honorary Secretary, Dr. J. H. Marsh, with a handsome punch bowl and a silver tea service as a small token of their appreciation of his services as originator, organiser, and conductor of the affairs of the Association. In his reply Dr. Marsh urged the great necessity of unanimity of action on the part of medical men in fighting the "battle of the clubs" and commended the action of this Association to the favourable notice of others.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1899.

Subscriptions to the Association for 1899 became due on January 1st, 1899. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, JANUARY 7th, 1899.

SECONDARY EDUCATION AND THE PRELIMINARY EXAMINATIONS.

I.—The Policy of the General Medical Council.

Amongst the subjects which engaged the attention of the General Medical Council during its last session one of the most important was that of medical education, which presented itself upon two issues—the question of preliminary education and that of the relation of the "preliminary sciences" of chemistry, chemical physics, and elementary biology to the five years' curriculum. These questions are to some extent interwoven with each other, and we have already briefly commented upon the latter, which has been referred for report to the Education Committee.

It is a fact only too familiar both to teachers and examiners that a material number of medical students somehow manage to pass their preliminary examination in general education without acquiring that mental training which is essential in order to place them in a position to take advantage of their opportunities for learning and to enable them to write an examination paper in the Queen's English. A year ago the Education Committee were requested by the Council to revise the list of examinations recognised, with a view to remove from it any which might be found to fall below the standard of the entrance examinations or of the junior local examinations of the Universities of the United Kingdom. This appeared to be the more necessary as it had been found that no fewer than nine-tenths of the students entering upon their medical studies had availed themselves of the lowest grades which are recognised.

The Committee, in the labours of which Dr. MacAlister would appear to have taken a prominent share, spared no pains to make their report both correct and convincing, and their attention was early directed to the second-class certificates of the examinations of the College of Preceptors (of first or second divisions), for of twenty-nine candidates in the Army, Navy, or Indian Medical Services whose mode of entrance could be traced, and of whose general education complaint was made, no fewer than fourteen had passed at the College of Preceptors, the others being distributed over nine different recognised examinations. An exceedingly bad record was also shown by the students who had passed the preliminary carried out by the Society of Apothecaries of Ireland, but this examination has already been discontinued.

Examination papers and the answers of those who had passed at the College of Preceptors were investigated, with the result that the conviction forced itself upon the minds of the Committee that the standard was not adequate, was distinctly below that of the University Junior Local Examinations, and that, over and above this, the stringency with which pass marks were awarded was less. The head masters of some seventy schools in all parts of the kingdom were addressed, and asked their opinion as to the standard of these examinations respectively. Of those whose replies were in such form as to be available, a large majority accorded the first place to the University Junior Local Examinations. The College of Preceptors, whilst affording every facility to the Committee by furnishing papers, answers, etc., strenuously combated the conclusion which was thus pointed at. The balance of evidence, however, derived from all sources can leave no doubt in the mind of anyone who takes the pains to follow it that the conclusion of the Committee is a just one, and that these second-class certificates of the College of Preceptors are the first which should be expunged from the list. Another examination which met with little favour in the eyes of the Committee was that conducted by the Conjoint Boards of the Royal Colleges of Physicians and Surgeons in Ireland, but it is recognised that improvements have been made in this, and—at all events until some public and independent body in Ireland can be induced to institute appropriate examinations at times of the year convenient for medical students—it was felt that this might still be recognised. Indeed, to have ceased to do so would, under the conditions which prevail in Ireland, have been productive of grave inconveniences.

In Scotland the Educational Institute, frankly admitting that its standard was not sufficiently high, has issued fresh regulations under which it seems probable that the requirements of the Council will be met, but during 1899 its results will be inspected. Certain other Matriculation Examinations in the Colonies and elsewhere have also been accepted as sufficient.

The recommendations of the Committee thus go no further than to advise that the one second-class certificate shall no longer be recognised, and this is to take effect from January, 1900; but the opinion is expressed that before long other changes in the way of raising the standard of preliminary education will have to be adopted. This did not entirely satisfy the desires of a considerable number of the members of the Council, who were of opinion that others of the junior examinations should be speedily expunged, and the Committee were asked to consider the question whether they could not fix a date at which the further changes which they foreshadowed should take place. A necessary corollary of this was that they should define which examination they consider insufficient for permanent recognition. The debate which ensued brought to light various phases of opinion. A spirit of caution inclined some to think that the recommendations of the Committee went far enough, urging that any increased stringency would starve the supply of medical students, and that it was already difficult for country practitioners to obtain assistants. One speaker was so pessimistic as to predict that, in the event of a war, the supply of trained men would be found inadequate. But it is difficult to take this quite seriously, and there is so much evidence that the profession has of late years become overcrowded, with downward competition as the disastrous consequence, that there does not appear to be much harm to be anticipated from cutting off a certain number of the least well educated students, unless it be to the funds of the teaching and examining bodies.

The slight dislocation of arrangements caused by the more stringent enforcement of regulations against the employment of unqualified assistants will soon be remedied, and it is a well ascertained fact that the mass of candidates prepare themselves with a very strict regard to the character of the examinations which they have to pass. Increased stringency does not, in practice, lead to a commensurate increase in the number of rejections.

On the other hand, it was urged that the examinations still to be accepted as reaching the minimum standard—namely, the University Junior Local Examinations—are intended for, and as a matter of fact are passed by, boys of an age below that at which it is desirable for a student to commence his medical studies. Fifteen is the age for which they are adapted, and the expression "examinations for little boys" frequently recurred. It was stated that the Senior University Locals were intended for boys of 16 or 16½ years, and that in fact this was the average age of those entering for them; so that this was the lowest standard which was really appropriate to the medical student if he is to be possessed of average attainments for his age. This is further indicated by the regulation that at the Cambridge Senior Locals a boy cannot go in for honours if he has attained the age of 16 years.

It was also pointed out, and with much force, that there was no necessity for giving any very long notice in years, for the final school career of boys did not after all embrace more than three or four years prior to their attaining the age of 16, and that a notice of five years would cover the whole real school time of boys intended for the medical profession if we leave out, as we well may, time spent at schools for very small boys only.

Perhaps the most cogent argument to those who have experience of teaching and of examining will be the statement that the large proportion of rejections of candidates at the purely professional examinations is in great measure due to insufficient general education, the students coming up to the medical schools without having acquired the power of learning and of expressing themselves.

To sum up the impressions gained by a study of the views advanced in the debate, it seems to be quite clear that a majority of the Council are in favour of raising the standard of examinations which give admission to the *Students' Register*, and that it will not be long before practical effect is given to this conviction, and a change brought about which will be hailed with pleasure by every real friend of medical education.

Why we should be content to accept in a lad of 16½ or 17 a standard of knowledge which educational bodies consider that he ought to have attained by the time he is 15 is hard to see, and the position seems not to be logically defensible. We propose in a subsequent article to discuss some of the causes which have contributed to bring about this unsatisfactory state of things, and the remedies which can be suggested.

THE SURGERY OF THE POSTERIOR MEDIASTINUM.

THE mediastinal spaces are among the territories most recently conquered by the advancing army of surgeons. Their invasion has, however, been quite gradual. Both Hippocrates and Galen make mention of procedures to be employed in dealing with intrathoracic disease, but it is only within the antiseptic era that any real advance has been made. The simple operation of thoracotomy, which was then in high disfavour, was in 1841 made the subject of an appreciation and approval by Sédillot; but until Moutard-Martin reintroduced the operation in 1872 no general adoption of it can be recorded. Since then, however, it has leaped into general favour, and now it is one of the simplest and most frequent of operations. Emboldened by its success, several operators—Estlander, Letiévant, Schede, and others, suggested and carried out a wide extension of its principle, and the method of thoracoplasty became, through their endeavour and example, a classical operation. But more than this resulted. By multiplying experience it began to be recognised that the pleural sac had been held quite unnecessarily in dread. It was seen that much freer interference with it could be safely tolerated. By experiments upon animals Glück and Schmidt showed that the healthy lung was capable of being removed wholly or in part; and Biondi, after artificially producing tuberculosis of the lungs, dealt with the affected portion by complete removal. In 1885 Omboni fulfilled expectation by showing that wounds of the human lung could be treated by immediate suture with success, and the possible surgical achievements in this direction received their final completion by the successes of Tuffier, Lowson, and Doyen in the operation for removal of diseased human lung.

That other organs lying within the chest might be brought within the reach of the surgeon's knife was first demonstrated by Nasiloff, of St. Petersburg, in 1888 by a series of investigations made on the cadaver. Conclusions very similar to his were arrived at by Quénu and Hartmann in 1891. These three observers had all agreed that the shortest and best method of reaching the œsophagus as it lay within the chest was by means of an incision to the left of the vertebral column. Portions of three, four five, or more ribs were resected and the pleura stripped up. Potarca in 1893, and again more recently,[1] advocated, as a result of many observations made on the cadaver, and by experiments upon dogs, that the shortest and most advantageous route to the posterior mediastinum and the œsophagus lay through an incision to the right of the middle line. Other contributions were made to the subject by Ziembicki and Bryant, but the best, the fullest, and most complete account was furnished by Obalinski in 1896. This author related 5 cases of suppurative posterior mediastinitis treated by Nasiloff's method, with subsequent drainage, which had been under his own observation in Rydygier's clinic, and recorded 8 others observed by

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[1] *La Chirurgie Intramédiastinale Postérieure.* By Dr. J. Potarca. Paris: Georges Carré et C. Naud. 1898. (Royal 8vo, pp. 110. Fr.5.)

Morian, Ziembicki, and Krynski. Of the 13 cases, 3 were acute, 10 chronic. The latter were dependent upon tuberculous disease of the dorsal vertebræ. The results were, on the whole, satisfactory.

The most recent contribution to this subject appears in the last number of the *Archiv für klinische Chirurgie* from the pen of Professor Rehn of Frankfort. Two cases are recorded, one of cicatricial contraction of the œsophagus, the result of swallowing some caustic fluid in an attempt to commit suicide by a young man aged 22; and the other a case of malignant stricture of the œsophagus in a man aged 49. In the former the œsophagus was exposed by a curved incision on the right side of the dorsal vertebræ, and the removal of portions of the fourth to eighth ribs. The pleura and the lung were easily drawn away. A sound in the œsophagus showed the site of the stricture. A longitudinal incision was made through the stricture, the sound passed on into the stomach, and the œsophageal wound stitched over the sound. In the second case a large growth in the œsophagus was everywhere adherent. The pleura was wounded. Both patients died—the former after a prolonged illness during which he became progressively exhausted; and the latter after six days, of cardiac failure, due, as shown by *post-mortem* examination, to old-standing pericarditis and myocarditis.

These operations of Obalinski and of Rehn prove, then, that it is physically possible, without wound of any important viscus, to reach the œsophagus as it lies within the chest. It is therefore the question of early diagnosis which requires further elucidation. It may be that in œsophagoscopy lies our means of solving this difficulty. Good work has already been done in this direction by Mikulicz, Rosenheim, von Hacker, and others, and a more extended use of the method may enable us to recognise in their early stage the exact causes of œsophageal obstruction. It seems not improbable that in a case of malignant disease diagnosed early and treated in some such manner as that adopted by Rehn, a successful resection of the diseased portion of the œsophagus may in the near future be recorded. As yet, however, the subject is merely one of promise unfulfilled.

MAGISTRATES AND THE MEDICAL ACTS.

THE result of the prosecution of Joseph Steel illustrates once again the difficulty of obtaining a conviction under the Medical Acts. In this case, as will have been seen from the report published in our columns last week, a man who held no medical qualification, who took care, according to his own evidence, to tell his patients that he was not legally qualified, who not many years ago was a miner, who nearly five years ago was prosecuted for using the title M.D.(Bc.) (conferred on him by the "General Council of Safe Medicine"), and convicted by the justices in a penalty of £10 and £4 1s. 6d. costs—a conviction which, on appeal to the Court of Queen's Bench, was upheld—nevertheless continues to practise. He stated in evidence last month that he has a club of 400 members who pay him from 6d. to 9d. a fortnight, and that he employs a collector to get in the subscriptions. It was proved in evidence that he had given a certificate as to the death of a girl, upon a printed form, and as he had had this form printed for himself it would seem that he must be in the habit of giving such certificates. The certificate was not, of course, a legal certificate of death, but it was taken to the registrar of deaths, who registered the death as "uncertified," without, so far as appears, any inquiry being made. This point in the case affords an example of a serious defect in the method of registration of deaths in this country, to which attention has often been called. According to the report of the Registrar-General for England and Wales, 11,628 deaths were registered without formal certificates as to cause during the year 1896. Registrars are, however, instructed to report to the coroners all deaths which are caused either directly or indirectly by violence, or are attended by suspicious circumstances, as well as all deaths the causes of which are stated to be unknown, and all uncertified deaths which are stated to have been sudden. The Registrar-General is unable to give the actual number of uncertified deaths reported to coroners, but he estimates that about 71 per cent. of all the uncertified deaths were thus referred. This would leave about 3,400 deaths as to which no certificate was received and no inquiry held. The Registrar-General states that "a large proportion of these were deaths of infants who had been attended only by midwives, or were deaths of persons who had been attended by unregistered practitioners." Without stopping to discuss the validity of the distinction adumbrated, we may safely assume that between 4,000 and 5,000 individuals of various ages died in England and Wales in 1896 while under the treatment of persons who were not registered medical practitioners. The estimate is probably under the mark, for a very large proportion of the cases referred to the coroners for inquiry as being uncertified were, undoubtedly, uncertified only because the persons had been attended in their last illness by unregistered practitioners. This laxity in our system of registration is, from several points of view, a very serious matter. We are at present only concerned to point out that it greatly favours the practice of quacks by removing out of their path one of the chief obstacles which the law has placed there.

It has been said that the title, for the use of which Joseph Steel was convicted in 1894, was granted to him by a body calling itself the General Council of Safe Medicine, a body which had been registered under the Joint Stock Companies Acts as a company of limited liability. It was established to grant degrees, etc., in the "Magnetic and Botanic System," to students passing a satisfactory examination before the General Council of Safe Medicine, and to those of the botanic profession of good moral character who could produce reliable evidence of qualification, or of ten years' practice, at the discretion of the Council. In August, 1894, the General Medical Council brought an action for a declaration that the objects of the General Council of Safe Medicine were illegal and injurious to the public. In the result the General Council of Safe Medicine agreed to a perpetual injunction not to issue or confer any degree or diploma of M.D.(Bc.), or any like degree or diploma, or any degree, diploma, or licence, certificate, or document purporting to confer on the person to or on whom the same is issued or conferred, a degree, diploma, licence, testimonial, or qualification in medicine, surgery, or midwifery, or any branch thereof, or to qualify or authorise such person in any other way or by any other method to treat disease. Yet we find Steel now adding to his name the letters F.C.S.M. which he said meant "Fellow of the Council of Safe Medicine."

The failure of the General Medical Council to obtain a conviction in the case of Steel has a bearing upon the interpretation which Mr. Victor Horsley puts upon the Medical Acts, and especially upon Section XL of the Act of 1858, as to which some controversy has recently taken place in our columns. Magistrates display a very great reluctance to convict under this Section, and even some ingenuity in construing it in a defendant's favour. In the recent action against Joseph Steel, it was charged that he did unlawfully and falsely take and use the title of F.C.S.M., thereby implying that he was recognised by law as a medical practitioner. The counsel who appeared for the General Medical Council said that the charge was made under Section XL of the Medical Act, 1858. He urged that the only distinction between this case and the case of 1894, when Steel was convicted, was that instead of using the letters M.D.(Bc.), he had used the letters F.C.S.M.London, and that these letters were used for the purpose of misleading ignorant people to believe that he was in some way qualified to act as a medical practitioner. The defence was that the letters did not imply that he was a medical man, that he had made no pretence that he was a medical man, and that all the people who consulted him knew that he had no legal qualification.

This is exactly the same line of defence as was taken by Samuel Matthews, of Norwich, prosecuted by the Medical Defence Union last August, when the magistrates found that the defendant did not wilfully and falsely pretend to be a doctor, and dismissed the case, though they found against him on the second charge of using the title of "Surgeon," and imposed a fine of £1 and costs. In contrast with this ambiguous result was the ease with which on the following day a conviction was obtained, at the instance of the Medical Defence Union, against the same defendant Matthews for having acted as an apothecary, contrary to the provisions of the Apothecaries Act, 1815. After a short conversation between counsel, the offence was admitted, and the counsel for defendant merely made a speech, in the course of which he referred to the proceedings of the previous day, and added that "Dr. Matthews" was known to everybody to be a quack doctor. As we ventured, in commenting on the case at the time, to say, the defence to the prosecution under the Medical Acts might be summed up as follows: "We all know Matthews to be a quack, therefore there is no fraudulent pretence; it is true that he calls himself 'Dr.,' but he deceives no one thereby."

In the case of Eastburn, in which a conviction by the Sheriff Court of Glasgow for using the title or addition of A.M.S., was quashed on appeal on the ground that there was a flaw in the indictment, the Lord Justice Clerk is reported to have said that what was charged against the accused was made subject to a penalty in order to protect the public against persons professing to practise as medical men or surgeons under qualifications held forth which they did not possess; but this was merely an *obiter dictum*, for the case was decided on technical grounds before the Scottish Court.

If the effect of Section XL could be argued on its merits in the Court of Appeal it would be a great gain, even if the decision went against the view that the Acts do afford efficient protection of practice and not of title only, for we should then know exactly where we stood, and the way would be cleared for the much-needed Bill to amend the Medical Acts.

THE "TREMENDOUS EXPERIMENT."

Now that the new year has begun, that tremendous legislative experiment, the New Vaccination Act, is—theoretically at least—in full operation. Vaccination at public stations, excepting under special circumstances or for special purposes, disappears, domiciliary vaccination begins, and glycerinated calf lymph comes into general use amongst public vaccinators. Most unfortunately, the partial adoption of the new Act within the past few months has already been enough to discredit it in the estimation of the "man in the street." At the Edinburgh meeting of the British Medical Association the Public Health Section passed a unanimous resolution, which was immediately transmitted to the Government by Dr. Saundby, the President of the Council, urging, even at the eleventh hour, the withdrawal of the Bill in order that the whole question in its legislative aspects might be reconsidered in view of all that had emerged in the course of the discussions in Parliament and in the country. Very likely Mr. Chaplin now regrets that he did not, or perhaps could not, accept that advice. Especially is it to be regretted that the conscience clause became law in such a shape as to mean either anything or nothing, in accordance with magisterial fancy or predilection; but Government was determined to pass a Vaccination Bill of some sort, and the result is that they are now in a worse position than if they had never touched the subject. If they desire their five years' experiment to have the slightest value they must now proceed to alter the fundamental condition under which it is to be conducted. The conscience clause in its present form is looked on with contempt alike by friends and enemies of vaccination, and the Government which forced it through Parliament is an object of indignant reproach on the part of many of its ordinary supporters. Unpleasant as it may be to confess to a blunder, it will be much better to introduce in the approaching session of Parliament a proper amendment of the conscience clause than to permit the continuance of those petty-sessional doings which have made Section II of the Act a laughing stock in so many parts of the country. Such an amendment can easily be included in the Bill which the profession expects the Government to introduce for the promotion of revaccination. In that way, and in that way only, can Ministers redeem their reputation which, in this matter, has been tarnished by the mixture of vacillation, hesitation, and haste which characterised last session's proceedings. The memorial of the West Somerset and Dorset and West Hants Branches of the British Medical Association, which was printed in the BRITISH MEDICAL JOURNAL of October 29th, 1898, p. 1367, was presented to the Dorset Quarter Sessions, held at Dorchester on January 4th. The memorial urged that magistrates in the counties mentioned should postpone a decision in all applications under the new Vaccination Act for six months, in order to give Parliament an opportunity of expressing its opinion and of amending an Act fraught with disastrous consequences. The court did not take any action on the memorial.

ADMISSION TO THE ROYAL ARMY MEDICAL CORPS.

WE venture to suggest that the provision relative to the medical qualifications of candidates in the Revised Regulations (December 1st, 1898) for admission to the Royal Army Medical Corps might be simplified with advantage.

The second paragraph of the Regulations requires the candidate to "possess two diplomas or licences recognised by the General Medical Council—one to practise medicine and the other surgery," and to "be registered under the Medical Act in force in the United Kingdom at the time of his appointment; but a candidate who holds a single diploma from the Society of Apothecaries obtained under the conditions of the Medical Act of 1886 will be deemed to possess the double qualification required." This very prolix provision must, we think, be productive of some confusion in the minds of candidates, and must also cause some amount of trouble to the Department in replying to inquiries, all of which could be easily avoided by the simple elimination from the clause of every condition except that of registration under the Medical Acts. Since the Medical Act, 1886, the mere fact of registration is sufficient evidence of the possession of a diploma or diplomas for the practice of medicine, surgery, and midwifery. No person can now be registered, or could have been registered since the Medical Act, 1886, came into force (July 1st, 1887), without having passed a qualifying examination in medicine and surgery, the efficiency of which is controlled by the General Medical Council. The maximum age of candidates for the Army Medical Corps being 28, it necessarily follows that it would be impossible for any candidate to be registered under the Medical Act without having obtained the triple qualification. We think, therefore, that it would be very desirable that the attention of the authorities should be called to the facts we have mentioned, with a view of excising from Clause 2 of the Regulations the unnecessary provisions to which we have referred, and substituting the simple requirement that the candidate must be registered under the Medical Acts. The point is of more importance than may perhaps at first appear, for it is very desirable that it should be impressed upon the public mind that the only way in which the right to practise in the United Kingdom can be acquired is by registration on the *Medical Register*. The mention of various diplomas in an official document can only tend to confuse the public mind.

VITAL STATISTICS OF LONDON.

THE annual report of the medical officer of health of the Administrative County of London for 1897, which has just been issued, is a volume of a bulk and solidity calculated to strike awe into all but those "stalwarts" of statistics who, in Lord Rosebery's phrase, can lunch contentedly on a biscuit and a Blue Book. We can, at the present moment, do little more than notify the appearance of the report. The population dealt with by Mr. Shirley Murphy was estimated to be 4,484,717 in the middle of 1897. The marriage-rate was 18.5 per 1,000 living, this being the highest rate since 1878. In these marriages, 4.57 among the males were under the age of 21, while the corresponding proportion among the females was 16.16 per cent. The birth-rate was 30.0 per 1,000 living, the district heading the list being St. Luke's with 45.2, and the lowest being St. Martin-in-the-Fields with 13.3. The death-rate was 17.7 per 1,000 living. Comparative tables of mortality are given, which show that whereas the London death-rate in 1887-96 was lower than in Paris, Brussels, Amsterdam, and Copenhagen, in 1897 it exceeded the death-rates of Brussels, Amsterdam, Copenhagen, Stockholm, Berlin, and Rome. The deaths of children under 1 year of age were in the proportion of 158 per 1,000 births. The zymotic death-rate and the numerous other important matters dealt with in the report must be reserved for a fuller analysis than can be given here. There is one passage, however, of special interest to which reference must be made. In connection with diphtheria Mr. Shirley Murphy refers to the fact that in addition to the arrangements already made by the sanitary authorities of St. Marylebone, St. Pancras, Holborn, and St. Olave for the bacteriological examination of material from doubtfu cases, similar arrangements have now been made by the authorities of Fulham, Strand, and Clerkenwell, mostly with the Jenner Institute of Preventive Medicine. In Poplar the matter is under consideration. In their reports for 1897 the medical officers of health of Paddington, Stoke Newington, Bethnal Green, St. George Southwark, Lambeth, Wandsworth parish, Woolwich, and Plumstead express themselves in favour of such aid being obtained. The medical officer of health of Marylebone states that the opportunities given by the vestry have not been much utilised, that the number of cases thus examined was 42, and out of these 12 were considered diphtherial. In St. Pancras the corresponding numbers during seven months were 42 and 22 respectively, in Fulham 48 and 30 respectively, in Holborn 37 and 18 respectively, and in St. Olave, a district which had made arrangements with Guy's Hospital, 2 specimens were sent for examination.

THE EDUCATION OF THE FEEBLE-MINDED IN ITALY.

AMONGST the attractions of the recent successful exhibition at Turin were, as seems the fashion nowadays, a number of conferences—artistic, literary, scientific, industrial, and others. Amongst these, and perhaps not the least useful, was a Congress of Pedagogues. At this a lady, Dr. Maria Montessori, raised the question of the education of feeble-minded children, and suggested that the Minister of Education, Professor Baccelli, M.D., should be asked to institute, in connection with each elementary school, separate classes for such children. This suggestion was unanimously adopted by the meeting. The reply of the Minister has not yet been received, but as he has already during his term of office distinguished himself by a determination to extend improved educational facilities, it is not doubted that he will view the proposal with favour. But this, like other things, means money. The financial position of Italy is improving, and great hopes are entertained that it will still further improve under the recent fiscal treaty with France. But Italy is still a country which finds it difficult to make both ends meet. Many Italians who are neither jingoes nor alarmists entertain a genuine fear that if the armaments of the country are not kept up Italy may cease to be a separate nation. The recent conflict between the United States and Spain is referred to by serious newspapers as an example of what might happen. Politics, and especially *la haute politique*, are beyond our sphere, and we will not offer an opinion whether ironclads or armies are more likely to be useful than the education of people of all classes. Serious Italian publicists recognise that it is want of education that produces such pitiable monsters as Luccheni and the like. They recognise also that these persons are a serious danger to the political stability of the State. Anarchists have no mental perspective, or even an inverted one; no sense of proportion, or even an inverted one, which causes smaller objects to appear larger than greater ones. Italian publicists also see that the poverty of the masses is a fertile source of anarchical opinion, and they would gladly do much to alleviate the lot of penury, but the necessity of preserving the State by the means above indicated again stops the way. The educational movement just referred to had its first springs in a speech made on June 23rd, 1897, in the Italian Parliament, by Professor Bonfigli, Director of the Lunatic Asylum at Rome, and it was he who inspired the motion of Doctor Maria Montessori. Italians now further recognise that the lower classes of "phrenasthenics," such as idiots, require to be dealt with in a special way—that special institutions must be founded in which they can be boarded. For the better classes one such institution already exists, founded and directed by Professor Gonnelli Cioni. "If it were not for this," somewhat pathetically remarks *La Tribuna* of Rome, "our country would form with Spain and Turkey a triad but little honourable to the nations who have never practically occupied themselves with this grave problem." It is satisfactory to see a newspaper conducted with so much intelligence and discretion as *La Tribuna* strenuously exerting itself to arouse popular feeling on this subject.

THE INCREASE OF HOSPITAL PATIENTS AT BRADFORD.

In the course of a correspondence, which, as we have already mentioned, has been for some time carried on in the columns of the *Bradford Observer*, the opinion was expressed that the great increase observed in the number of hospital patients was due to the increase of the population. Dr. Hime has taken this point up, and has published the following table:

Table showing the Increase per cent. of the Population of Bradford and of the Hospital Patients.

		Bradford cases only.		
	Population of Bradford. 1875 to 1896.	Infirmary Patients. 1875 to 1896.	Eye and Ear Hospital. 1875 to 1896.	Children's Hospital. 1889 to 1896.
Increase per 100...	35.9	55	96	1,904

As he observes, these figures show that, while the population only increased 36 per cent., the infirmary cases increased 55 per cent., the eye and ear cases 96 per cent., and the Children's Hospital (1889-96) nearly 2,000 per cent.! The increase of hospital patients has thus enormously outstripped the increase of population. Dr. Hime says: "I have only dealt with the actual Bradford patients, excluding persons from other towns, for an obvious reason. Had I included outsiders, it might have been alleged that the unnatural increase was due to their flocking into Bradford for charity. Now, will anyone say that there has been such an increase of poverty and disease in Bradford between 1875 and 1896 as to warrant this simultaneous increase in the charity patients at all our hospitals to this extent?" In spite of this increase in the number of hospital patients, the improved healthiness and the wealthiness of Bradford are a boast of all her citizens, and Dr. Hime sees as a reason for this increase in the number of charity cases at the hospitals an extension of the feeling that it is not disgraceful for well-to-do people to accept the charity intended for the poor, which is fostered by the false view taken by the hospital Boards, that the more patients they can boast of the more "good work" they have done.

THE BICYCLE AND DISEASES OF WOMEN.

Few persons deny that moderate exercise with the bicycle is excellent for healthy young women, but in the case of women suffering from pelvic disease the case is different. The matter has recently been discussed at a medical congress at Marseilles. Dr. Leriche, of Nice, succeeded in curing a case of habitual menorrhagia by enforcing bicycle exercise. That malady, however, is really but a symptom, so that it would be interesting to have more precise clinical evidence about such a case. We are not surprised to hear that Dr. Leriche finds that as a rule cycling does harm to those subject to hæmorrhages from uterine and ovarian inflammation. On the other hand the researches of Regnault and Bianchi have shown that this kind of exercise does not depress the abdominal viscera; indeed, it actually raises the organs. Hence the fear of "displacements" is exaggerated; but patients with flexions and versions are often neurotic, and expect that cycling will make them worse; the hyperæsthesia, indeed, will certainly cause them to feel uneasy during this exercise, nor are such persons strong enough to bear a long run on the wheel. The cycle is quite contraindicated when the appendages are inflamed. The effect on the intestinal functions seems remarkably beneficial: constipation, as might be expected, is usually relieved; on the other hand, cycling is said by Leriche to check chronic looseness of the bowels.

A BULLET EMBEDDED IN THE HEART FOR THIRTY-SEVEN YEARS.

Dr. O. B. Beer, writing recently in the *Cincinnati Lancet Clinic*, says that not long ago Dr. G. O. Brown and he held a necropsy on an old soldier who had been wounded by "bushwhackers" during 1861. The wound was made by a small rifle ball of the kind used in muzzle-loading rifles. It had entered the thorax posteriorly on the left side between the second and third ribs, and had passed downward and inward through the left lung and pericardium, and had embedded itself in the wall of the heart near the lower part of the left ventricle. There had never been any disturbance of the heart's action and the organ seemed to be perfectly normal. The man had, after recovering from the effects of his wound, served till the close of the war and since had been a farm labourer. Cancer of the arm was the cause of his death.

THE MASTER OF PEMBROKE.

An Oxford correspondent writes: It would be ungrateful on our part were we to allow the death of the Rev. Bartholomew Price, the Master of Pembroke College, to pass without some reference to his services to science, and more especially to medicine, in Oxford. A member of the Boards of both Faculties, he took a keen and active interest in the development of the medical school. In his earlier days, when it was an uphill fight, we felt that the battle was half won if only we had "Bat" Price on our side. He gave us the benefit of his advice, and we profited much by his experience of University procedure. He may be said to have kept the keys of the University chest in his pocket, for without his approval money was never forthcoming. On the other hand if the Professor said a thing must be done, it generally was, in spite of all opposition. His death is our loss, his memory something to cherish.

THE EMPLOYMENT OF CHEMICAL AND *X* RAYS IN AFFECTIONS OF THE SKIN.

The influence exerted upon the skin by rays derived from the solar spectrum, or produced by electrical discharges, has of late been the subject of considerable study. As is often the case, the undesirable effects of these agents were the first to make themselves evident; the elucidation of these led subsequently to a search after their therapeutic advantages. The investigation of the uses of the chemical solar rays is being pursued by Professor Finsen of Copenhagen, a brief account of whose results has been published by Dr. Emil Popper.[1] Investigations of the lethal action of natural and artificial light upon bacteria show that the most potent rays in this respect are those which undergo most refraction, which are the coolest and the most chemically active; these are the blue, violet, and ultra-violet rays. Professor Finsen has applied these to the treatment of accessible cutaneous affections by concentrating sunlight or that from an arc lamp through a series of powerful lenses between two of which is placed a solution of methylene blue, which shuts off the hotter but less chemically active rays, namely, the ultra-red, red, orange, and yellow. The arc lamp is hung in the centre of four similar pieces of apparatus, so that four patients can be treated at the same time. The bactericidal action of the light is found to vary as its concentration; with a strength of current of 25 ampères Professor Finsen was able to weaken bacteria in four or five minutes, and kill them in fifteen to twenty. He found that the penetration of the tissues by light was impeded by the blood, and he therefore rendered them anæmic by pressure before exposing them. He has applied the method to the treatment of lupus vulgaris with what Dr. Popper describes as the most striking results; his plan is merely to expose a portion of skin about the size of a halfpenny to the concentrated light for an hour a day. It is interesting to note that the Danish Government has endowed Professor Finsen's institute with a sum of 20,000 kroner. With regard to the *x* rays, dermatologists have hitherto been inclined to regard them as foes rather than friends, and to pillory in the medical journals cases of dermatitis induced by their employment. It seems, however, that they can not only be rendered innocuous, but can actually be tamed and driven triumphantly in the therapeutical chariot of the skin specialist. Dr. E. Schiff showed at a recent meeting of the Imperial and Royal Medical Society of Vienna a case of lupus erythematosus which had almost entirely cleared up after two months' treatment with the Roentgen rays; one portion of the disease which had been left untreated served by contrast to illustrate the value of the remedy. Dr. Schiff stated that he had had good results in the treatment of lupus vulgaris by this means, which was applicable to much larger surfaces than that of Professor Finsen, the value of which he was able to substantiate. Professor Kaposi spoke highly of both methods, and attributed their action partly to the hyperæmia induced, as in the case of insolation, and partly to chemical changes set up in the cells. Dieudonné and Richardson have shown that the chemical action of rays of light is proportional to the amount of peroxide of hydrogen which they cause to be formed. All observers agree that both procedures are innocuous.

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[1] *Wien. med. Presse*, 1898, No. 41.

THE EVELINA HOSPITAL FOR SICK CHILDREN.

THE very handsome legacy of one hundred thousand pounds has been left to the Evelina Hospital for Sick Children by the late Baron Ferdinand de Rothschild, who was the founder and president of the hospital, which was erected in memory of his late wife. We understand that by the terms of the will this legacy is to be invested and the interest is to be applied to the annual needs of the institution. During his lifetime the late Baron contributed annually a sum of two thousand pounds to the hospital, but in addition he frequently helped with further subscriptions and donations for special purposes; it is to be feared therefore that with the present low rate of interest and with the legacy duty deductions the Committee will find additional efforts must be made to meet current expenses.

THE SPITTING NUISANCE.

SOME time ago reference was made in the JOURNAL to the steps which had been taken by the authorities of several cities in the United States to check the filthy and dangerous practice of spitting in public places. Since then similar prohibitions have been made in other parts of America, the most recent, as far as we are aware, being in the medical department of Columbia University, where not only spitting but smoking is forbidden in every part of the college precincts except in the retiring room and a designated part of the dissecting room. Smoking, say the university authorities, necessarily means expectorating, and the object of the ordinance is said to be the prevention of the spread of disease by means of sputa. We demur to the alleged constant relationship between smoking and spitting, for your practised smoker has his salivary glands well under control. We hold strongly, however, that no one in whom tobacco causes sialorrhœa should be permitted to exhibit his infirmity in public. Unseasoned smokers are not the only offenders but they are the worst, as the knifeboards of omnibuses and tramway cars and the railway carriages reserved for smokers only too plainly testify. But promiscuous expectoration is everywhere too much with us. The National Association for the Prevention of Consumption might well begin its crusade by making a determined effort to put down this abominable nuisance. Notices forbidding expectoration are well enough, but after all the people for whom they are intended are not likely to pay any attention to them unless some penalty is attached to their infringement. The omnibus and railway companies can easily do this by special by-laws, and the police could probably without much difficulty obtain powers to treat public spitting as a nuisance. But by-laws and regulations are nothing if they are not enforced, and it is here that the Association aforesaid might find a field of the greatest usefulness. Let it get the authorities to make the necessary regulations, and then let some energetic members in each centre of population form themselves into a Vigilance Committee for the suppression of spitting in public vehicles and in places where men do congregate. There will be opposition, of course, and those persons who profess to look upon the right to spread disease as one of the privileges of a free-born Briton will denounce this new form of medical tyranny. But the bulk of the community will be with the promoters of a reform which at once makes for sanitary righteousness, and removes a constant source of annoyance to all who have any regard for the decencies of life.

A NEW MILITARY HOSPITAL IN THE UNITED STATES.

A NEW army hospital, the largest under the control of the United States Government, is to be constructed of Georgia pine, at Savannah, Georgia, at a cost of 150,000dols. There will be 149 buildings, all designed and constructed with a view to permanency. The ground plan of the hospital will be rectangular, with covered ways connecting all the buildings with each other, and with the administration building in the centre. Each of the four sides of the quadrangle will contain a ward with a capacity of 250 beds. One ward will be devoted to surgical cases, and an enclosed passage-way will connect it with a modern operating room. In addition to the general wards there will be private rooms for the accommodation of invalid officers. An unlimited supply of artesian water will be provided. Coal gas-burners will supply heat. An ice factory is situated within 50 yards of the site, and the cost of the ice is inconsiderable. The officers' quarters will be of two storeys. The dormitories for the nurses and the hospital corps will occupy two buildings. The chief surgeon will have a private residence.

PRIZES OF THE ACADÉMIE DE MÉDECINE.

ONE of the most interesting annual functions at the Académie de Médecine in Paris is the formal award of the numerous prizes in the gift of that illustrious body. This year, as usual, the most noteworthy features were the decisions of the Académie as to the Audiffred, Laborie, Chevillon, and Adrien Buisson prizes. Two years ago Madame Audiffred gave a capital sum, estimated to produce an income of 2,400 francs (£960), to be awarded as a prize to anyone who shall discover a means of curing or preventing tuberculosis. The prize is offered to the whole world, and last year inventors of nostrums from every part of the globe entered the lists. This year there has been a falling off in the number of such competitors, but, on the other hand, a variety of faddists holding that tuberculosis is curable by magnetism, that the disease originates from inflammation of the intestine and hence is easily dealt with by drinking water and eating bread and butter, that the bacillus is a delusion, and that antisepsis causes general poisoning, have urged their claims. Among the serious workers who competed, special mention is made of Dr. Auclair, of Paris, who has made interesting researches on the substances extracted from the tubercle bacillus, and has shown that the fatty matters contained in excess in the bacillus are necrosing agents, and doubtless play a part in the resistance of the bacilli to phagocytosis. A sum of £80 was awarded to him by way of encouragement, while £20 was given on the same ground to Drs. Auché and Hobbs of Bordeaux. The Laborie prize was founded in memory of Dr. Laborie, who was for many years Senior Physician to the Asile des Convalescents at Vincennes. Madame Laborie gave for the purpose a capital sum sufficient to produce an income of £200 a year, to be awarded as a prize for the best work in surgery. This prize was divided between MM. Poncet and Bérard of Lyons, authors of a *Traité Clinique de l'Actinomycose*, and M. Kirmisson, Surgeon to the Enfants-Assistés, author of a *Traité des Maladies Chirurgicales d'Origine Congénitale*, published during the past year. The Chevillon prize of £60 is given for the best work on the treatment of cancerous diseases. This year a portion of it (£40) was awarded to Drs. A. Guinard and Livet, who have used carbonate of calcium as a local application with considerable success as far as the relief of pain and the arrest of hæmorrhage and the prevention of fœtor are concerned. The Buisson prize consists of a sum of £420 awarded trienially to the discoverer of methods of curing diseases regarded as incurable. This year there were only three competitors: Dr. Frenkel, who propounded a method of training whereby ataxic patients may be drilled into the recovery of muscular co-ordination; Dr. Jayle, who has made a series of investigations as to the practical utility of ovarian extract in the treatment of nervous and circulatory disorders accompanying dysmenorrhœa and the menopause, whether natural or artificial; and Dr. Petit, who presented a thesis on tuberculosis of the glands of the neck. The Academy did not see its way to award the prize, but gave £40 each to Dr. Frenkel and Dr. Jayle, and £20 to Dr. Petit by way of encouragement.

CHRISTIAN SCIENCE IN THE UNITED STATES.

Christian Science has recently been much before the public of the United States, not only in the newspapers, but in the law courts. On November 15th, Harriet O. Evans, a member of the sect, was arrested at Cincinnati by order of the State Board of Health as being accessory to the death of a man suffering from typhoid fever. She was convicted of practising medicine without a licence. In Rhode Island a judge not long ago, in a case in which two Christian Scientists were charged with the illegal practice of medicine, decided that they had violated the health laws. The accused were Walter E. Mylod and David Anthony. Both of them claimed the right to use the "C.S.D." as an affix to their names on the signs they had hung out. Mylod, in his own defence, said he belonged to the "Providence Church of Christ, Scientist." "Pray without ceasing" is the text adhered to. He had been a scientist for eleven years. Mylod said that beyond a greater realisation of the truth which that science might have given him, he had no greater power over illness than any member of his church. He denied the existence of disease. Several of the patients of Mylod were called, and they testified it was prayer, religion, and God, and not medicine, that made them feel better. The case has been taken to the Supreme Court of the State, which is now called upon to decide whether Christian Science is a method of medical practice or a system of religion. On November 12th Mr. Thomas Greenwood Kershaw, the head of the Christian Science Church of Tacoma, died of acute pneumonia, for which he declined medical treatment. He is said to have been a man of the highest education and intelligence, and until he became an adherent of the Christian Science sect he was one of the most active and successful business men of Tacoma. When taken ill Mr. Kershaw, despite the entreaties of his family, refused to see physicians, and placed himself under the care of a woman Christian Science healer in Savannah (Ill.), who, he said, was able to relieve him regardless of distance. He was visited by several of his Christian Science followers, and at their suggestion he rose from his bed and took a step forward. He would have fallen had he not been caught. It was then found that he was dead. In view of the fierce light which has for some time past been beating on the Christian Scientists, it is not surprising to learn that American insurance companies are beginnng to look askance at them as "risky lives." Yet in spite of all the exposures which have lately come thick and fast, we read that Mrs. Mary Baker Eddy, the founder of Christian Science, has lately completed the examination of a class of about seventy students, and has conferred upon them a degree of the Massachusetts Metaphysical College, empowering them to go forth as "healers and as teachers of this system of medicine, whose only crowned head is divine sovereignty, whose only priest is spiritualised man." And these "healers" are not likely to lack patients if some statements recently made by Mr. Carol Norton in an address delivered at Brooklyn are to be trusted. He said that there are at present 7 Christian Scientist churches in Greater New York City, and 13 in the immediate vicinity of New York City, 38 churches and congregations in the State of New York, and about 30,000 adherents of the faith in the State. Mr. Norton estimates that there are a million Christian Scientists in the United States.

GLASGOW ROYAL INFIRMARY.

At the annual New Year's Day meeting of the managers of the Glasgow Royal Infirmary with the nurses and staff, the Lord Provost, Sir David Richmond, referred to the proposed reconstruction of the infirmary. It was not, he said, easy to plan such a large institution so as to give the greatest satisfaction to everyone, and the trouble experienced in bringing all the different proposals into line had been very great. The managers had had many anxious meetings, and the medical staff had been consulted. He hoped, however, that in a very short time a portion at least of their institution would be reconstructed, and he believed that the plans of the internal arrangements that had been fixed upon were equal to those of any infirmary in Europe, while the buildings would be handsome and ornate, as well as useful. The sum already raised was £80,000. When the scheme was first suggested, the sum asked was £50,000, but it was soon seen that a larger scheme was required, and the public were asked to provide £100,000. He had no doubt they would get that amount, if not before the buildings were begun, at all events before they were completed.

THE SUSPECTED PLAGUE ON THE *GOLCONDA*.

The British India Steam Navigation Company have, it seems, expressed a desire to see contradicted the statement that the suspected plague patient on board their vessel, the *Golconda*, mentioned in the British Medical Journal of December 31st, 1898, complained of illness shortly after leaving Colombo. It would seem indeed that the ship's surgeon was not acquainted with the fact of the reported ill-health of the patient, Mr. Wilcox, until the latter reported himself to the surgeon as ailing the day after the *Golconda* left Marseilles, the last port of call. We are glad to note this emphatic contradiction, the more so as the circumstances of such an apparently prolonged incubation of plague, if plague it be, have in themselves given rise to various conjectures and rumours; and undoubtedly anything that savoured in the slightest degree of concealment of actual fact as regards the existence of plague on board a liner would be greatly to the prejudice, not alone of the company to which the vessel belonged, but also to shipping generally on the passage westwards from Indian waters. At present, however, there would seem to be no complete proof forthcoming that the case in question is bubonic plague. As regards the allegation that a second case of plague had been discovered on board while the vessel lay in dock in the Thames, we cannot learn that there is any truth in the rumour. But after all, and whether or no the cases on the *Golconda* be in reality of the nature of plague, we must be prepared to see the true disease found on vessels trading between our own shores and India; and the fact need cause no uneasiness, having regard to the conditions under which the lines of steamships enter Channel ports. Equipped as are these ports of call, and as is the Thames port authority, to deal promptly and effectually with exotic diseases, we may rest assured that local authorities will adopt adequate and timely action whenever necessity arises.

SURGEON-GENERAL A. A. GORE.

THE retirement of Surgeon-General Albert Augustus Gore, of the Army Medical Staff, after a continuous service of thirty-nine years, and a tenure of the highest and most responsible position after that of the Director-General of the Medical Department, namely, the Principal Medical Officership of Her Majesty's Forces in India, calls for a few words on the distinguished officer's career. Surgeon-General Gore's appointment has in every respect been a success. Not only had he to organise and distribute the medical arrangements for war, but he was called on to advise on many subjects connected with bacteriological research and sanitation in their application to the health and well-being of our military forces serving abroad. These duties have been carried out with an unswerving fidelity and a fearless independence deserving of the highest commendation. Surgeon-General Gore's war service records "wounds" twice and mention for "conspicuous bravery," with a "special recommendation for promotion" in 1868. It is not generally known that Surgeon-General Gore very nearly got the V.C. for conspicuous bravery in bringing in a wounded officer during the operations on the West Coast of Africa. His contributions to military medical literature comprise *A Medical History of our West African Campaigns: Notes of a Visit to the Military Hospitals of the Continent*, and *The Story of our Services under the Crown*, all of which show laborious research, and contain much matter both instructive and interesting, which army surgeons would do well to read and note. Surgeon-General Gore's first commission as "Assistant-Surgeon" is dated October 1st, 1860, and subsequent promotions, till he reached a General's rank, were by no means rapid. He retires with the regard and respect of the officers with whom he was associated, and we have it on good authority that a high opinion was held at Headquarters Simla of his administrative ability. He studied to promote *esprit de corps*, and to support the dignity of the corps of which he was the head.

AMBULANCE AND HOME NURSING IN THE EVENING CONTINUATION SCHOOLS CODE.

WE have received a copy of a correspondence, extending from July to November, 1898, between Mr. J. Bentall Endean, of Cockington, Devon, and the Lords Committee of the Privy Council on Education, in which the former charges that department and the St. John Ambulance Association with piracy upon his translation of *The Care of the Sick at Home and in the Hospital*, by Dr. Billroth, in compiling their syllabuses for the code on sick nursing and on ambulance. These are special subjects in the new code for evening elementary schools; and the syllabuses in question are alleged by Mr. Endean to have been abstracted and constituted almost wholly from *The Care of the Sick* without his permission, and without any acknowledgment. He complains that in thus taking the results of his brain labour, the department has done him a great wrong. He therefore requests the department to make the teachers throughout the country aware that the principal textbook on the subject is the one in question. In reply, he is informed that the department does not recommend the use of any particular books in public elementary schools. It is admitted, however, that the courses on sick nursing and ambulance were suggested by the St. John Ambulance Association; and it is pointed out that the alternative syllabuses of the schedule are described as "the scheme of the St. John Ambulance Association." The Secretary of that Association (Sir H. Perrott) on being applied to, states that Mr. Cantlie, who assisted Dr. Shepherd in compiling the "first-aid" syllabus, and who alone compiled the "nursing" syllabus, denied *in toto* that any reference whatever had been made to Dr. Billroth's publication; whilst he (Sir H. Perrott) claims that these compiled schemes are entirely original. Mr. Endean, however, returning to the charge, contends that the syllabuses and the book agree closely; he further states that his translation appeared in 1890, that a copy of it was sent in March, 1891, to Sir H. Perrott, whereas the syllabuses were not published until 1893. But, though he expresses himself as indignant that the department should by example place themselves before the children of the country as "receivers of stolen goods," the only reply vouchsafed to him is that "my Lords do not consider that any useful purpose would be served by prolonging this correspondence." Practically, therefore, it would seem that the syllabuses of ambulance and home nursing used in evening continuation schools largely coincides with Mr. Endean's translation of Billroth's book, though no official acknowledgment of the fact has ever been made.

INTERNATIONAL CONGRESS OF OPHTHALMOLOGY.

THE Ninth International Congress of Ophthalmology will be held at Utrecht from August 14th to 18th, 1899. The scientific work of the Congress will be divided among three sections, as follows: (1) Anatomy, Pathological Anatomy, and Bacteriology; (2) Optics and Physiology; (3) Clinical and Operative Methods. Communications may be presented in English, French, or German, which may also be used in discussion. At each meeting of the several sections one of these languages is to have the preference, but without excluding the use of the others. The University of Utrecht has placed its buildings at the disposal of the Congress for the meetings and exhibitions. The Organising Committee is composed of Dr. Argyll Robertson, President, and Mr. George A. Berry, General Secretary, of the Eighth Congress; Professor M. E. Mulder (Groningen), M. Straub (Amsterdam), W. Koster (Leyden), and H. Snellen (Utrecht). The British Secretary of the forthcoming Congress is Dr. Angus McGillivray, of Dundee.

OPERATION ON THE GRAVID UTERUS.

RECENT improvements in the technique of abdominal surgery have effected a marked diminution in the mortality attending operative interference with the gravid uterus. Excluding hysterectomy for malignant disease, there are practically only two conditions under which the gravid uterus comes under the knife of the surgeon—the presence of fibroid tumours, and insuperable obstacles to delivery. Cæsarean section is a historic procedure, and of growing repute; the removal of fibroids during pregnancy is modern, and open to doubt. The attitude of mind of the "advanced" gynæcologist towards fibroid tumours has undergone a remarkable change. Formerly, the presence of these growths was regarded with a large toleration both by the doctor and his patient; now some gynæcologists regard them with abhorrence, and hunt them down with little regard to their size, or location, or the symptoms, if any, to which they give rise. Even the gravid uterus is not exempt from attack. A German gynæcologist has recently collated 55 cases in which myomectomy was performed during pregnancy; the maternal mortality was 11 per cent., and in 32.7 per cent. the ovum was subsequently destroyed. These results, of course, compare favourably with those obtained ten years ago when the mortality as cited by Tourkero and Lange ranged from 25 to 30 per cent. Proof is accumulating, however, that at term surgical interference with the gravid uterus is much safer than at any earlier period. Recent returns of the operation of Cæsarean section show a mortality scarcely exceeding that of ovariotomy in the most experienced hands. Olshausen has reported 29 cases with a mortality of 6.8 per cent., and Leopold 59 cases with a mortality of 3 per cent., and in several instances the operation was performed twice and even three times upon the same individual with a result successful both as regards the mother and the child. It can rarely be necessary to operate upon subperitoneal fibroids during pregnancy. In the great majority of cases such growths cause no complications whatever either in pregnancy or labour. It is usually better either to induce abortion or to allow the pregnancy to go to term undisturbed, and then if the birth of a living child should prove impossible, to remove it by Cæsarean section, and at the same time deal with the fibroids by the most appropriate methods. As a matter of fact, if this rule were observed, many operations contemplated during pregnancy would never be performed at all.

GLASGOW AND ITS LATE MEDICAL OFFICER OF HEALTH.

After a somewhat animated discussion the Corporation of Glasgow adopted the proposal that Dr. Russell, their late senior medical officer of health, should receive an honorarium of £1,000. There was some discussion on the legality of the proposal and upon the danger of forming such a precedent. However the general feeling that the splendid services which Dr. Russell rendered for the city should be specially acknowledged prevailed and the proposed grant was agreed to.

THE CRICCIETH TRAGEDY.

The coroner's court in nearly every case of suicide inquires into and the jury takes cognisance in its finding of the mental state, as is seen in the common verdict "temporary insanity." In a case of suicide complicated by murder it would appear to be still more desirable that the mental state of the deceased should be ascertained. Many homicidal suicides result from the fact that the present state of the law renders it difficult to deal with some of the most dangerous forms of insanity, until they have resulted in an act of violence. It is therefore most desirable in the interests of the community that such cases as the Criccieth tragedy should be very fully investigated, with the object of definitely ascertaining whether such insane murders and suicides could not be prevented by improved legislation. All definite evidence of facts relating to the mental state of the suicide ought to be obtained and received. It rests, however, in the decision of the coroner (as of the judges in criminal cases) whether a medical opinion of the mental state will be received or rejected. Some judges will admit no opinion, others permit opinions to be expressed.

THE LIVERPOOL LYING-IN HOSPITAL.

The resolution to admit unmarried women in the case of a first confinement to the Liverpool Lying-in Hospital has been carried by a large majority of the subscribers. This change in the laws of the institution has been effected after an agitation extending over no less than twenty-two years. Its origin is to be traced to a paper read by Mr. F. W. Lowndes before a meeting of the National Society for the Promotion of Social Science, which took place in Liverpool in 1876. Mr. Lowndes, dealing with the causes and prevention of the terrible destruction of infant life in Liverpool, suggested certain changes in the law which he thought might have the effect of reducing the number of cases of infanticide, and many persons present suggested the establishment of asylums for the reception of pregnant single women, such establishments having authority from the State to proceed against parents for the maintenance of their children. Mr. Lowndes held up for imitation the example of Queen Charlotte's Lying-in Hospital, London, where single women about to become mothers were admitted for a first confinement. In recommending the adoption of this rule by all lying-in hospitals and maternity charities he said: "Let the same humanity which prevails with judges, jurors, physicians, and lawyers after the crime has been committed, be shown by the supporters of these charities before the crime has been meditated." Mr. Lowndes is to be congratulated on the success which, though long deferred, has followed his efforts.

CENTENARY OF THE RUSSIAN MEDICAL MILITARY ACADEMY.

The centenary of the Russian Medical Military Academy was held with great pomp and success at St. Petersburg last week. The celebration began with a solemn service in the chapel of the Medical University, after which an address was given by one of the chief professors, in the presence of the Minister of War, of several of the great dignitaries of the Greek Church, and of a crowded and gay assembly. After the address prizes were handed to the most successful of the students. The chief event of the celebration, however, was a meeting in the Salle de Noblesse, on December 30th, 1898, at 2 p.m. The large hall was crowded with ladies in evening dress, with officers in uniform, and with delegates from various countries in their academic clothing. The Grand Duke Constantine assisted at the ceremony, and the Minister of War presided. After the delivery of an address, which embodied the history of the Academy, the Russian and the foreign delegates were, one by one, shown upon the platform and were introduced, each one saying a few words of greeting from the institution which he had the honour of representing. It was a long affair, as some of the delegates read memorials or made set speeches. All the delegates were heartily received, but Professor Bergmann, of Berlin, had, perhaps, the most enthusiastic welcome of all. Amongst the British representatives were the Rev. H. S. Cronin and Professor Shipley, from the University of Cambridge; Dr. Fergusson, from Edinburgh; Professor Ogston, from Aberdeen: and Messrs. Edmund Owen and F. R. Cross, from the Royal College of Surgeons of London.

The Prince of Wales has been pleased to appoint Sir James Reid, Bart., K.C.B., a Physician in Ordinary to His Royal Highness, *vice* Sir William Jenner, deceased.

Mr. Percy Furnivall has been elected Assistant Surgeon to the London Hospital, and Dr. T. W. Eden has been appointed Assistant Obstetric Physician to Charing Cross Hospital.

The Association of Public Vaccinators has issued to its members a paper of suggestions and recommendations arising out of the Vaccination Order, 1898. The paper has been compiled by Dr. A. E. Cope, one of the Honorary Secretaries, 26, Bessborough Gardens, S.W., and deals with a great variety of questions which will present themselves to public vaccinators in the transition from old to new.

Lectures will be delivered by Dr. E. Symes Thompson, Gresham Professor of Medicine at Gresham College, Basinghall Street, E.C., on January 17th, 18th, 19th, and 20th at 6 p.m. on each day. The subject of the course will be Preventive Medicine. The first lecture will deal with Consumption in relation to Air and Food, the second with the Tubercle Bacillus, the third with the Open-air Treatment of Consumption, and the fourth with Bovine Tuberculosis.

A NEW MIDWIVES BILL.

A NEW Midwives Bill has been drafted by the body calling itself the Midwives Bill Committee. It is printed on pp. 46 and 47, but it may be well first of all to recall the circumstances which have given it its present form.

The Midwives Registration Bill introduced in the session of 1898 was referred by the Lord President of the Privy Council to the General Medical Council for its opinion. The Bill was considered by a Special Committee of that body, and on April 5th and 6th, 1898, the General Medical Council held a special session for the consideration of the report of this Committee.

The First Report of the General Medical Council.

It may be convenient to reproduce the report as adopted by the General Medical Council on April 6th, 1898, and directed to be forwarded to the Lord President of the Privy Council:

Report of the General Medical Council in regard to the Midwives Registration Bill.

(i) That the title of the Bill should be: "A Bill to promote the training of women as midwives, and to provide for the regulation of their practice."

(ii) That the term "midwife" should be defined as meaning a woman who undertakes for gain to attend cases of natural labour, and who is not registered under the Medical Acts.

(iii) That the answer of the Council to the Lord President of the Privy Council should be as follows:

"(1) That the Council adheres to its previous resolutions affirming that it is desirable that measures should be taken to protect lying-in women of the poorer classes from the grave risk which they now incur from the unregulated practice of midwives, many of whom are ignorant and unskilful, and most of whom pursue their calling without due medical supervision.

"(2) That to this end it is desirable that every woman who, not being a registered medical practitioner, engages for gain in practice as a midwife, should be subjected to legal regulation and control.

"(3) That any measure which proposes merely to protect the title of 'midwife,' however defined, and does not make illegal and penal the unlicensed practice of midwifery for gain, cannot be regarded as offering a sufficient safeguard in the interest of the public health.

"(4) That some central body should be established by Parliament whose functions should include the framing of the conditions under which midwives may be licensed, and of the regulations under which alone they shall be allowed to practise.

"(5) That the conditions and regulations so framed should be subject to the approval of the General Medical Council, and if and when so approved should be issued to the local sanitary authorities by the State Department which is concerned with the public health.

"(6) That provision should be made by Parliament for reimbursing the Council for any expenditure which it may have to incur in performing the duty hereinbefore referred to.

"(7) That every woman, before beginning to practise as a midwife in any district, should be required to take out a licence, to be granted by the local sanitary authority of the district under the prescribed conditions and regulations. That such licence should be subject to annual renewal, and should be revocable at any time in case the holder is proved to have infringed any of the prescribed regulations.

"(8) That any unlicensed woman, whether calling herself a midwife or not, who, not being registered under the Medical Acts, practises as a midwife for gain in any district, should be made liable to a substantial penalty.

"(9) That the conditions under which licences are granted should include the production of satisfactory evidence of character, and of training and experience in the conduct of natural labour, and in the after-care of lying-in women and newborn infants.

"(10) That the regulations under which licensed midwives are required to practise should include provisions securing that the midwife shall immediately seek qualified medical assistance in every case which presents symptoms of difficulty, abnormality, danger, or disease on the part of the mother or of the newborn infant.

"(11) That in so far as the Bill submitted to the Council is not in accordance with the general principles above laid down, the Council do not regard it as offering a solution of the question under consideration, and would earnestly deprecate its passing into law in its present form."

On May 2nd the Lord President received a deputation of the promoters of the Bill then before Parliament, and intimated very clearly that they must come to a "definite understanding with the medical profession as represented by the General Medical Council." In consequence of this intimation the promoters approached the General Medical Council with a view to making such alterations in the Bill of 1898 as would secure the support of the Council, and sought a conference to ascertain "the precise bearing of some of the clauses" of the above report (of April 6th).

The Second Report of the General Medical Council.

On May 25th the General Medical Council appointed a Committee, consisting of Sir Richard Thorne (Chairman), Dr. Glover, Dr. MacAlister, and Sir Christopher Nixon, "to confer with the delegates of the Midwives Bill Committee and to report to the Council." A conference was accordingly held on June 25th,[1] and the deputation, which represented the Midwives Bill Committee and the Association for promoting Compulsory Registration of Midwives, a body stated to represent "a section of the general community in sympathy with the movement," subsequently handed in a summary of the points submitted. The Committee presented a report to the General Medical Council on November 29th. This Report, as adopted by the Council, with certain modifications was as follows. The "points" submitted by the Deputation are interpolated in small type for convenience of reference:

Report by the Committee Appointed by the Counci[illegible] Confer with Delegates from the Midwives Bill Committee.

Your Committee, appointed by resolution of the Council on May 25th, 1898, to confer with delegates of the Midwives Bill Committee, beg leave to report that the conference in question was held on June 25th, 1898, and they append hereto an account of the proceedings which then took place.

Your Committee made it clear at the outset of the proceedings that the principal objects of the Conference were: (1) To hear from the delegates of the Midwives Bill Committee any suggestions they might wish to make as to modifications of the Midwives Bill of 1898 so as to secure for any future Bill the support of the General Medical Council; (2) to explain to the Delegates the precise bearing of any clauses of the *Report* on that Bill which the Council had adopted on April 6th, 1898, and which might not be fully understood by the delegates; and (3) to express, as far as they were able, the views of the Council on certain matters which were deemed to be of importance by the Midwives Bill Committee, but which, according to that Committee, were not explicitly mentioned in the *Report* of the Council referred to. It was, at the same time, stated that your Committee had no power to make any suggestion or give any assurance which would in any way contravene the terms of the *Report* of the Council, or to bind the Council in any matters not specifically dealt with in that *Report*.

The delegates of the Midwives Bill Committee then brought a number of points before your Committee, which were thereupon discussed. After consideration of the shorthand notes of the discussion which were taken by the Midwives Bill Committee at the Conference, the delegates have, in Appendix II, on pp. 46-47, to the account of the proceedings, set out under six headings the "points" which it has been their desire to bring under the notice of the Council.

[POINT I.—THE GENERAL QUESTION OF LICENSING.

(*a*) What tests of fitness should be applied to applicants for a licence?

We suggest that, in addition to satisfactory evidence of character, training, and experience, as proposed in the *Report* adopted by the General Medical Council (see *Report* iii (9)), a system of examination should be instituted by a Central Board, and that the passing of this examination should be one of the tests of fitness. (See present Bill, Clause 5, (*a*), (*b*), and (*c*).)

(*b*) Restriction of the area of practice. (See *Report* iii (7).)

If the practice of a midwife is to be strictly limited to the district in which she has taken out a licence great inconvenience will arise. An endorsement of her licence or some equivalent formality should enable her to act as a midwife in a neighbouring district. In no case ought her crossing the line into another district in an emergency to be penalised.

(*c*) Annual renewal of the licence. (See *Report* iii (7).)

This would cause unnecessary trouble and expense to the midwives. In country places they might have to travel a considerable distance to the office at which licences are issued. Also the Local Sanitary Authority might refuse renewal on capricious grounds or on the instigation of interested persons. Besides this, many midwives, amounting possibly to thousands in the aggregate, might neglect to renew their licences. In this way an immense number of midwives all over the country might have to be prosecuted. A sufficient safeguard is provided in the present Bill by Clause 5, (*g*) and (*h*). In any case we feel that a reason should be given for every refusal to renew a licence. We would also suggest that a midwife, the renewal of whose licence has been refused, should have the right of appeal to the Central Board.]

The first "point" relates to *The General Question of Licensing*.

Under sub-head (*a*) it is proposed that, in addition to other tests of fitness to be applied to applicants for the midwife's licence, the passing of an Examination shall be imposed. We imagine that Paragraphs (iii) (4) and (5) of the Report of the Council (see p. 12) were not intended to exclude some such test at least in the case of midwives who may not be practising as such at the time of the passing of any Midwives' Act.

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[1] *The Report by the Committee appointed by the General Medical Council on May 25th, 1898, to confer with delegates from the Midwives Bill Committee* forms part of the *Minutes of the General Medical Council* for its last session. It can also be sold separately at the office of the General Medical Council and by Messrs. Spottiswoode and Co., 54, Gracechurch Street, E.C., price 1s. Appended to it is a shorthand writer's report of the proceedings at the conference taken by the Midwives Bill Committee.

Sub-head (*b*) deals with the *Restriction of the Area of Practice.* The delegates at first pointed out that limitation of practice to the district where the licence is taken out would involve difficulties. Your Committee, on the other hand, feel that whilst some consideration might properly be granted for calls across the boundary of a district in cases of real emergency, no proper supervision could be maintained over the practice of a midwife who might, without the knowledge of the local supervising authorities concerned, at any moment and without notice transfer her sphere of work from one district to another. They are of opinion that, whilst a licensed midwife should be free to follow her vocation in any district or districts in England and Wales to which her licence applies, and whilst it may be necessary to make due provision for real emergencies, no midwife should undertake practice in any district the sanitary authority of which has not previously been made officially cognisant of the fact. Midwives residing near the boundaries of several districts could easily get their licences made available for each of those districts.

Sub-head (*c*) deals with the *Annual Renewal of the Licence.* The delegates did not view with satisfaction the proposal in (iii) (7) of the *Report* of the Council (see p. 12) that the licence should be subject to annual renewal. Summarising their objections to this proposal, they now suggest as a difficulty that a midwife might have to travel a considerable distance to the proper office. Considering that even in the more remote sanitary district this means no more than a visit once a year to the principal market town, which can always be reached by one or other class of conveyance, we are unable to accept the view that this requirement involves any substantial difficulty.

The *Withholding of the Licence* is also referred to under this heading, and it is suggested by the delegates that with a view of preventing the withholding of the renewal of a licence on capricious grounds, a reason should be given for any refusal of renewal, and that there should be an appeal in this matter to the Central Board which it is proposed to appoint under the Bill. We imagine that the Council would not propose that when once the statutory licence to practise as a midwife has been acquired, the person possessing it should be deprived of it without a reason being assigned for such deprivation, nor would they be likely to object to an appeal against arbitrary and capricious action in such a matter. But the suggestion that it is unnecessary to require the renewal of licences by the local supervising authority or to confer on that authority the power to revoke the licence, is not one which your Committee can endorse. Action based on that suggestion would in effect deprive the responsible local supervising authority of the chief power they would possess of preventing malpractice in its many forms, and of requiring compliance with the prescribed regulations.

[POINT II.—THE PENALISING OF UNLICENSED PRACTICE.

We propose to substitute for this a clause disabling unlicensed midwives from recovering fees. Parliament would almost certainly refuse to penalise unlicensed practice. A penalising clause would infringe the liberty of the subject, create a monopoly, and tend to raise the fees of midwives. It might prevent, through fear of prosecution, an unlicensed woman from rendering assistance, even in an emergency, to any poor woman in labour. It would alienate the majority of the non-medical promoters of the movement, including many who have consistently supported it in Parliament. Further, if the State were to prevent unlicensed women from acting as midwives, it ought to provide or to ensure for the poor a sufficient supply of licensed midwives.]

The second "point"—namely, that dealing with *The Penalising of Unlicensed Practice*, involves a question of great importance. The Council decided in (iii) (8) of their *Report* "That any unlicensed woman, whether calling herself a midwife or not, who, not being registered under the *Medical Acts*, practises as a midwife for gain in any district, should be made liable to a substantial penalty." The delegates of the Midwives Bill Committee, on the other hand, propose to substitute for this clause one which would simply disable unlicensed midwives from recovering fees. Your Committee believe that adoption of this proposal would defeat one of the principal purposes which the Council have all along had in view—namely, that of protecting parturient women of the poorer classes from the grave risks which they now incur owing to the unregulated practice of midwives; and that it would likewise render nugatory the aim which the promoters of the Midwives Bill set out in a prefatory Memorandum to the Bill in the following words: "The chief object of this Bill is to enable the public, and especially such of the poor as are in the habit of employing midwives, to distinguish between those midwives who have been trained and have given evidences of being competent for their duties and those who have not."

It seems, indeed, almost unnecessary for your Committee to say more on this subject than to point out that a woman whose licence has been revoked for grave malpractice would immediately start unlicensed practice and would remain uncontrolled either by the local sanitary authority or by the Midwives' Board so long as she refrained from claiming her fee by legal proceedings in the few cases where that fee had not been voluntarily paid by those engaging her services, or where she had not insisted on being paid before commencing her attendance. The difficulties urged by the delegates would, we believe, be amply met by a clause recognising the obvious right of any woman to help her neighbour in the process of natural labour without fee in the cases where the services of neither a medical practitioner nor a licensed midwife were available.

Any temporary difficulties which might be experienced in this matter if, as assumed, on the passing of an Act dealing with this subject the number of trained midwives became largely reduced, would, we believe, be fully met by a proposal such as that which we suggest in dealing with Point IV.

[POINT III.—GENERAL LIST OR ROLL OF MIDWIVES.

We suggest that there should be printed a general list or roll of midwives who have passed the qualifying examination and produced satisfactory evidence of character, training, and experience. We do not propose that the fact of a woman's name being found on this list should be accepted as proof that she is licensed to act as a midwife. A general list would tend to secure uniformity in the standard of competency. It would save trouble and expense to the local sanitary authority, who would merely require to find on the list the name of an applicant for licence and to identify the applicant. It would also furnish an easy means of giving general effect to the withdrawal of a licence from any midwife found guilty of a breach of the regulations, as her name would then be struck out of the list, and she would be unable to obtain a licence in any district.]

In the third "point," the compilation of a General List or *Roll of Licensed Midwives*, for certain purposes, is proposed. Provided that the compilation of such roll does not supersede the necessity of each midwife being annually licensed in the district or districts in which she follows her vocation, we see no objection in principle to the proposal. But it would be undesirable to attach any legal privilege to the mere appearance of the name of a midwife on this Roll, such as is conveyed by the appearance of a name on the *Medical* or *Dentists' Register*.

[POINT IV.—EXISTING MIDWIVES.

We suggest that the existing midwives should be admitted to the list only on certain conditions to be laid down by the Central Board and approved by the General Medical Council. Means should be adopted to distinguish those who have given evidence of fitness from those who have not.]

The fourth "point" deals with a proposal to admit existing midwives to the Roll under conditions to be drawn up hereafter, and to be approved by the Council. Your Committee are of opinion that women ascertained to have been in *bonâ fide* practice as midwives prior to the passing of a Midwives' Bill might, subject to the production of satisfactory evidence as to character, be licensed to attend natural labours without passing any special examination. The admission of these women of uncertain qualifications to the status of licensed midwives would be of a transitional nature only; it would be a distinct gain to the poorer classes, in so far as it would bring women whose practices are now altogether uncontrolled under the supervision of the local sanitary authority, and under the control of the Midwives' Board; it would secure the cancelling of their licences for breaches of the rules laid down; and it seems to us to be the only means of meeting the existing demand for midwives in certain parts of the country. It would also not be inconsistent with the precedent under which medical men who were in practice before 1815 were allowed to practise Medicine, Surgery, and Midwifery, and were placed on the *Medical Register* without possessing any formal qualification in any branch of Medicine.

[POINT V.—REGULATION AND SUPERVISION OF THE PRACTICE OF MIDWIVES.

Would Clause 5 (*f*) of the existing Bill meet the views of the General Medical Council? According to it the Central Board would frame for approval by the General Medical Council rules for regulating, supervising, and restricting within due limits the practice of midwives.]

The fifth "Point" raises the question whether Clause 5 (*f*) of the Bill of 1898 would meet the views of the General Medical Council. That clause provides that a Midwives Board, constituted as defined in an earlier part of the clause shall have assigned to it amongst its duties: "To frame for approval by the General Medical Council rules for regulating, supervising, and restricting within due limits the practice of Midwives."

The provision here referred to is only one of several provisions of the Bill in which certain duties are cast upon the General Medical Council; and we feel that we have no authority, in the present uncertain position of the question of legislation for midwives, to express an opinion as to what duties the Council might be willing to undertake under a statute the precise provisions of which have not yet been drawn up. But, at the same time, your Committee expressed to the delegates the opinion that the Council under (iii) (4) of their *Report* (see p. 12) clearly intended that the duty of framing the conditions regulating the practice of midwives should primarily be placed in the hands of some Central Midwives Board. We feel, however, that it is impossible to separate the question of such rules and conditions being submitted to the approval of the Council from the next "Point" to be referred to.

[POINT VI.—EXPENSES OF CARRYING OUT THE ACT.

We desire to point out that our Bill, being a private member's Bill, cannot constitutionally contain a clause directing any payment out of the Exchequer. This prevents our making provision for the reimbursement of any expenditure which may be incurred by the General Medical Council out of moneys provided by Parliament. (See *Report* iii (6).) Only a Government Bill can do that.

Also we should like to know how the General Medical Council would propose to provide payment for the medical assistance referred to in the *Report* iii (10). The midwife is to immediately seek qualified medical assistance in every case which presents symptoms of difficulty, abnormality, danger or disease on the part of the mother or of the newborn infant.]

This "Point," the sixth set out by the delegates, relates to the *Expenses of Carrying out the Act*. The delegates point out in their summary that since their Bill is a private members' Bill they cannot insert a clause providing for any payments out of the Exchequer. This, doubtless, is so. But whatever the remedy may be, it seems quite clear that the cost of carrying out the provisions of any such legislation, however desirable that legislation may be in the interests of certain portions of the community, ought not to be paid out of the funds of the General Medical Council. The advantages accruing from such legislation will primarily concern the public, and the licensed midwives; whereas no one can suggest that it will pecuniarily benefit the medical and dental professions, who by payments on registering their diplomas provide the only funds which are at present at the disposal of the Council.

Your Committee have reason to believe that the Lord President of the Council is desirous of receiving some expression of opinion from the Council as to how this matter may best be met; and they would therefore make the following proposals to the Council:

1. That the duty of fulfilling any functions that may be imposed upon the Council under any Act regulating the practice of Midwives should be delegated to a Special Committee, who should report to the Council.
2. That, so long as any such Act is made to apply only to England and Wales, the Special Committee should consist of five members of the English Branch Council.
3. That, in the first instance, the Special Committee should meet in London at least twice a year.
4. That the sum allowed by the Treasury to the General Medical Council for the performance of any duties imposed upon it under an Act regulating the practice of Midwives should, in the opinion of this Council, be adequate to cover both the general and special expenses of the Council and its Special Committee.

Under the sixth "point" the delegates also express the desire to know how payment is to be made for the medical assistance which, according to the *Report* of the Council (iii) (10), the midwife is to seek "in every case which presents symptoms of difficulty, abnormality, danger, or disease on the part of the mother or of the new-born child." This matter is not specifically referred to in the *Report* of the Council. But your Committee would suggest that the necessary fee should be paid by the local sanitary authority, and that this authority should have power to recover the amount, either in whole or in part, according as the patient or other responsible person may be held by a court of summary jurisdiction to be able to pay. A similar provision exists in regard to payments for the treatment and maintenance of persons who are isolated in hospitals for infectious diseases which have been provided at the cost of the rates by local sanitary authorities.

THE NEW BILL OF THE MIDWIVES BILL COMMITTEE.

The Draft Midwives Bill, 1899, as agreed to by the Midwives Bill Committee on December 10th, is a substitute for that promoted by the same Committee in the last session of Parliament. Mr. Rowland Humphreys, L.R.C.P.Lond., Honorary Secretary of the Midwives Bill Committee (12, Buckingham Street, Strand, W.C.), in forwarding a copy of the new Bill, writes:

"It is based on that of 1898, altered in several important respects in view of the requirements of the General Medical Council as formulated in April last.

"The chief alterations are: (1) Licensing is substituted for registration; (2) the habitual practice of midwifery—by other than medical practitioners—by women not licensed under this Bill, is rendered illegal (Section III, Subsection 2); (3) the area within which a midwife may practise is limited to that controlled by the local supervising authority, from whom she has obtained a certificate authorising her to practise (Section x).

"These are the leading requirements of the Council."

The alterations indicated by Mr. Humphreys are set out in the Memorandum issued with the Draft Bill.

NEW FEATURES OF THE BILL OF 1889.

In the Draft Bill as printed below, the words or provisions which are new are printed in italics, but the two Bills differ also by certain omissions from the Bill of 1899.

The title of the Bill has been altered from A Bill for the Registration of Midwives, to A Bill to Promote the Better Training of Women as Midwives and to Regulate their Practice.

Clause 1 is modified sequentially by the omission of the word "registration."

In Clause 2, the definition of the term "midwife" is altered from "a woman who undertakes to attend cases of labour in accordance with the regulations to be laid down under this Act, to "who undertakes for gain to attend women in childbirth." "Roll" is substituted for Register, and the Board is termed the "Central Midwives Board" in the place of Midwives Board. Sequential alterations are made throughout the Bill.

In Clause 3 (1) the concluding words were in the Bill of 1898 "or is specially qualified to act as a midwife unless she be registered under this Act," The word "specially" is omitted in the Bill of 1899.

In Clause 3 (4) the phrase "implying that she is by law recognised as a licentiate or practitioner in medicine or surgery, or that she is qualified to grant any medical certificate, or any certificate of the cause of death" has been modified by the introduction of the term "medical practitioner" in place of the terms "licentiate or practitioner in medicine or surgery" as well as by the omission of the words making special reference to the certificate of death.

From Clause 4 is omitted "for a period of two years," which in the Bill of 1898 was given as the period for which a woman must show that she had been in *bonâ fide* practice as a midwife. The provision that she shall produce a certificate of character is new.

The modifications in Clause 5 are mainly sequential to the adoption of the principle of local licences in place of registration by a central Board. The Central Midwives Board under the new Bill would consist of six persons in place of eighteen, but the bodies appointing remain unaltered as does also the relative proportion of representatives. The provision that one-third of the elected representatives should retire annually and be inelegible for re-election for one year disappears, and is replaced by the provision that they shall retire two years after the passing of the Act, but shall be eligible for re-election annually. The clause also extends the control of the General Medical Council to the approval of regulations for the issue of licences and the condition of admission to the roll, and for the conduct of "qualifying examinations."

In Clause 6 the alterations are sequential to the substitution of licensing for registration and of the administrative county for the local sanitary authority (see below Clause 9).

Clause 7 is new and makes provision for the manner in which the midwives' roll shall be kept, and in particular directs that the roll shall in every case indicate the qualifications in virtue of which the licence is issued.

With Clause 8 is incorporated Clause 7 of the Bill of 1898, with the substitution of secretary for registrar. The rest of Clause 8 is identical with Clause 8 of the Bill of 1898, with the sequential changes of "roll," "licensed," and "secretary" for register, registered, and registrar.

Clause 9 is modified by the substitution of the "administrative county council" for the "local sanitary authority," and by the insertion of Subclause (3) giving power of suspension; and Subclause (5) directing that the Secretary of the Central Midwives Board shall be supplied with a list of the names and addresses of all midwives practising in the district.

Clause 10 is new, and would require every woman "who holds herself out as a practising midwife" in any administrative county to obtain from the local supervising authority a certificate enabling her to practise in the administrative county, "which certificate shall be granted on proof by the woman that her name is on the midwives' roll." The certificate is to be renewable annually free of charge, and to be available only in the county for which it is issued.

Clause 11, Subclauses (*b*) and (*c*) are new. (*b*) makes it a misdemeanour for any woman to hold herself out as a practising midwife, or to practise in any administrative county without having previously obtained a certificate, as provided by Clause 10. The penalty on conviction of the misdemeanour would be £2, or imprisonment with or without hard labour for a term not exceeding one month. (*c*) permits a midwife to attend a woman in childbirth in another county on an emergency, provided that she gives notice within a reasonable time of having so acted to the local supervising authority of that county.

The remaining clauses of the new Bill are identical with those of the Bill of 1898, with the necessary alteration of terms sequential to the new provisions in the Bill of 1899.

The following is the text of the Bill and Memorandum. The new provisions in the Bill are printed in italics.

MIDWIVES BILL.

MEMORANDUM.

THE chief object of this Bill is to carry into effect the recommendation of the Select Committee of the House of Commons relating to the training and practice of midwives by promoting the training of women as midwives; and by providing for the regulation of their practice.[1]

This Bill provides that henceforth no woman shall call herself, or habitually practise for gain as a midwife unless she has obtained a licence; and that, in order to be licensed, she must *inter alia* produce evidence either (1) of having undergone a proper training and subsequent examination, or (2) of having (at the time of the passing of the Bill) been in *bonâ fide* practice as a midwife. The Bill does not render it illegal for any person to render assistance to a lying-in woman in an emergency.

A Central Midwives Board is constituted under this Bill whose chief duties will be (1) to organise examinations of a uniform standard; (2) to regulate, supervise, and restrict within due limits the practice of midwives; and (3) to investigate charges of malpractice, negligence, or ignorance against midwives.

The Bill is drafted on the lines of that introduced last year, but the following alterations have been made in view of the requirements of the General Medical Council[2]

1. Licensing is substituted for registration.

2. The habitual practice of midwifery for gain, by women not licensed under this Bill, is rendered illegal.

3. The area within which a midwife may practise is, in order to facilitate supervision, limited to that of the Local Supervising Authority from whom she has obtained a certificate authorising her to practise.

ARRANGEMENT OF CLAUSES.

Clause.
1. Short title.
2. Definitions.
3. *Licensing*.
4. Provision for existing midwives.
5. Constitution and duties of the *Central* Midwives Board.
6. Fees and expenses.
7. Midwives Roll.
8. Appointment of *Secretary*. *Supplemental provision as to licence.*
9. Local supervision of midwives.
10. *Midwife's certificate.*
11. Penalty for obtaining *a licence* by false representation, *or acting without a certificate.*
12. Penalty for wilful falsification of *roll*.
13. Prosecution of offences.
14. Appeal.
15. Act not to apply to medical practitioners.
16. Extent of Act.

A BILL *TO PROMOTE THE BETTER TRAINING OF* MIDWIVES *AND TO REGULATE THEIR PRACTICE.*

BE it enacted by the Queen's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:

1. SHORT TITLE.—This Act may for all purposes be cited as *the Midwives Act, 1899.*

2. DEFINITIONS.—In this Act

The term "midwife" means a woman who undertakes *for gain to attend women in childbirth.*

"*Midwives Roll*" means a *roll* of midwives kept in pursuance of this Act.

"*Central* Midwives Board" means the Board constituted under this Act for the purpose of carrying out the provisions of this Act.

3. LICENSING.—(1) From and after the first day of January one thousand nine hundred, no woman shall be entitled to take or use the name or title of midwife (either alone or in combination with any other word or words) or any name, title, addition, or description implying that she is licensed under this Act, or is qualified to act as a midwife unless she be *licensed* under this Act.

(2) Any woman who, after the first day of January one thousand nine hundred, not being *licensed* under this Act, shall take or use the name of midwife or any other such name, title, addition; or description as aforesaid, *or shall habitually and for gain attend women in childbirth*, shall be liable on summary conviction to a fine not exceeding five pounds.

(3) No woman shall be *licensed under this Act* until she *has* complied with the rules and regulations to be laid down in pursuance of the terms of this Act.

(4) The *licence* under this Act shall not confer upon any woman any right or title to be registered under the Medical Acts or to assume any name, title, or designation implying that she is by law recognised as a *medical* practitioner, or that she is qualified to grant any medical certificate.

4. PROVISION FOR EXISTING MIDWIVES.—Any woman who, *within* two years *of* the passing of this Act, claims to be *licensed* under this Act shall be so *licensed* provided she *holds* a certificate in midwifery from the Royal College of Physicians of Ireland, or from the Obstetrical Society of London, or such other certificate as may be approved by the Central Midwives Board, or produces evidence, satisfactory to the Board, *of character, and* that at the passing of this Act she has been in *bonâ fide* practice as a midwife.

5. CONSTITUTION AND DUTIES OF THE CENTRAL MIDWIVES BOARD.—On the passing of this Act *the President* of the General Medical Council *shall take steps to secure the election of a Central Midwives Board which shall consist of:*

(1) *Four* registered medical practitioners, *one* to be elected by the Royal College of Physicians of London, *one* by the Royal College of Surgeons of England, *one* by the Society of Apothecaries, and *one* by the Incorporated Midwives Institute; and

(2) *Two* persons to be appointed for terms of three years by the Lord President of the Council.

After two years from the passing of this Act the elected members shall retire, but shall be eligible for re-election annually. Any vacancy occurring by resignation or death shall be filled up in the case of an elected member by the body which elected him, and in the case of an appointed member by the Lord President of the Privy Council.

(3) The duties of the Board shall be as follows:

I.—To *frame* rules, *for approval by the General Medical Council,*

(*a*) Regulating the *issue of licences* and the conditions of admission to the *roll.*

(*b*) *Regulating the conduct of qualifying examinations.*

(*c*) Regulating the admission to the *roll* of women already in practice as midwives at the passing of this Act.

(*d*) Regulating, supervising, and restricting within due limits the practice of midwives.

II.—(*a*) To appoint examiners:

(*b*) To decide upon the places where and the times when examinations shall be held.

(*c*) To publish annually a *roll* of midwives *who have been duly licensed under the Act.*

(*d*) To decide upon the conditions under which midwives may be suspended from practice.

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[1] See Reports of Select Committee on Midwives Registration, together with the proceedings of the Committee, Minutes of Evidence, Appendix and Index, ordered by the House of Commons to be printed June 17th, 1892, and August 8th, 1893.

[2] See Report by the Committee appointed by the General Medical Council, on May 25th, 1898, to confer with delegates from the Midwives Bill Committee, together with an Appendix containing a Report of the proceedings at the Conference (adopted by the General Medical Council, November 29th, 1898).

(e) To decide upon the removal from the roll of the name of any midwife for disobeying the rules and regulations from time to time laid down under this Act by the Central Midwives Board, or for other misconduct, and also to decide upon the restoration to the roll of the name of any midwife so removed.

(f) *To issue licences.*

III.—And generally to do any other *act or* duty which may be necessary for the due and proper carrying out of the provisions of this Act.

6. **Fees and Expenses.**—There shall be payable by every woman presenting herself for examination or *licence* such fees as the *Central* Midwives Board may, with the approval of the General Medical Council, from time to time determine. All fees paid by *existing* midwives *and* by candidates for examination shall be paid to the *Central* Midwives Board. The said Board shall devote such fees to the payment of expenses connected with the examination and *licence*, and to the general expenses of the Board. Should these fees not equal the expenditure of the Board, the deficiency shall be supplied from the respective local *administrative* county funds, in proportion to the number of *licensed* midwives in the *said* county.

7. **Midwives Roll.**—*There shall be a Midwives Roll containing:*

(1.) *The names of those midwives practising at the date of the passing of the Act who have been licensed to practise under the Act:*

(2) *The names of those not already in practice as midwives at the passing of the Act, but who have been licensed to practise under the Act.*

The entry on the roll shall in every case indicate the qualifications in virtue of which the licence was granted.

8. **Appointment of Secretary.**—The *Central* Midwives Board shall appoint a *Secretary* who shall be charged with the custody of the *roll*.

Supplemental Provision as to Licence.—A copy of the midwives *roll* for the time being shall be in evidence in all Courts that the women therein specified are *licensed* according to the provisions of this Act; and the absence of the name of any woman from such copy shall be evidence, until the contrary be made to appear, that such woman is not *licensed* according to the provisions of this Act. Provided always, that in the case of any woman whose name does not appear in such copy, a certificate under the hand of the *Secretary* of the entry of the name of such woman on the *roll* shall be evidence that such woman is licensed under the provisions of this Act.

9. **Local Supervision of Midwives.**—Every *administrative County Council* throughout England and Wales shall, on the passing of this Act, appoint its medical officer of health or other registered medical practitioner or practitioners, as the local supervising authority over midwives *within the area of the said County.*

It shall be the duty of the local supervising authority:

(1) To exercise general supervision over all midwives practising within the *prescribed area* in accordance with the rules to be laid down under the provisions of this Act.

(2) To investigate charges of malpractice, negligence, or misconduct on the part of any midwife practising within his district, and, if he consider that a *primâ facie* case is established, to report the same to the *Central* Midwives Board.

(3) *To suspend any midwife from practice, in accordance with the rules to be laid down by the Central Midwives Board, if he considers such suspension necessary to prevent the spread of infection.*

(4) To report at once to the *said* Board the name of any midwife practising in his district convicted of a misdemeanour or felony.

(5) *During the month of January of each year to supply the Secretary of the Central Midwives Board with the names and addresses of all midwives practising in his district, and to keep a current copy of the midwives roll, accessible at all reasonable times for public inspection.*

(6) *To* report at once to the *Central* Midwives Board the death of any midwife or any change in the name or address of any midwife in his district, so that the necessary alteration may be made in the *roll*.

10. **Midwives Certificate.**—*A woman who holds herself out as a practising midwife in any administrative county, shall obtain from the local supervising authority a certificate enabling her to practise therein, which certificate shall be granted on proof by the woman that her name is on the midwives roll. The certificate shall remain in force till the thirty-first day of December following and shall be revocable at any time by the local supervising authority in case the holder be proved, to the satisfaction of the Central Midwives Board, to have infringed any of the regulations framed under this Act. The certificate shall be renewed annually in the month of January. It shall be issued free of charge, and shall only be available in the county for which it is issued.*

11. **Penalty for Obtaining a Licence by False Representation, or Acting without a Certificate.**—(*a*) Any woman who procures or attempts to procure *a licence* by making or producing, or causing to be made or produced, any false or fraudulent declaration, certificate, or representation, either in writing or otherwise, and any person assisting her therein, shall be deemed guilty of a misdemeanour, and shall on conviction thereof be liable to a fine not exceeding five pounds, or to be imprisoned, with or without hard labour, for any term not exceeding two months.

(*b*) *Any woman who, after the first day of January one thousand nine hundred, shall hold herself out as a practising midwife or shall practise in any administrative county without having previously obtained from the local supervising authority a certificate enabling her to practise therein shall be deemed guilty of a misdemeanour, and shall, on conviction thereof, be liable to a fine not exceeding two pounds or to be imprisoned, with or without hard labour, for any term not exceeding one month.*

(*c*) *But a midwife shall not be guilty of a misdemeanour under this section by attending, on an emergency, a woman in childbirth in a county other than that for which she holds a certificate, provided she has within a reasonable time given notice of having so acted to the local supervising authority of that county.*

12. **Penalty for Wilful Falsification of the Roll.**—Any person appointed to keep the *roll* of midwives, wilfully making or causing to be made any falsification in any matter relating to the *roll* of midwives shall be deemed guilty of a misdemeanour, and shall be liable to a fine not exceeding ten pounds, or to be imprisoned with or without hard labour for any term not exceeding three months.

13. **Prosecution of Offences.**—Any offences under this Act punishable on summary conviction may be prosecuted, and any fine under this Act recoverable on summary conviction may be recovered in manner provided by the Summary Jurisdiction Acts.

The expenses of any prosecution shall be defrayed out of the funds of the *county in which* the prosecution takes place.

14. **Appeal.**—(1) An appeal shall be allowed to the Privy Council should any disagreement arise between the General Medical Council and the Midwives Board respecting the carrying out of the provisions of the Act, or of any of them.

(2) Where any woman deems herself aggrieved by any order, conviction, judgment, or determination of or by any matter or thing done under this Act by any court of summary jurisdiction, such woman may appeal therefrom to the court of quarter sessions.

15. **Act not to Apply to Medical Practitioners.**—Nothing in this Act respecting midwives shall apply to legally-qualified medical practitioners.

16. **Extent of Act.**—This Act shall not extend to Scotland or Ireland.

[Copies of the Draft Bill, price 2d. post free, can be obtained from Messrs. J. F. Howell and Co., 87, Malden Road, Kentish Town, London, N.W.]

THE PLAGUE.

The Special Commission.

The Commission has been sitting in Calcutta during the past week. From the telegraphic reports published in the *Times* we learn that the evidence given by the witnesses was as follows:

Colonel Hendley, Officiating President of the Plague Commission in Bengal, stated that the plague began at Sirohi in December, 1897. Colonel Hendley believes that plague is spread by human agency, and that it was brought by *banyas* from Poona. The symptoms of the disease were identical with the Mahumurri or Pali plague recorded in 1836.

Dr. Cook, Health Officer of the Corporation in Charge of Inoculations, stated that the deaths from plague in Calcutta from April 14th to September 24th, 1898, numbered 192. He had carefully tested Haffkine's fluid, and invariably found it sterile, and no lasting evil effects had in his experience occurred from inoculation. Out of 2,490 persons inoculated Dr. Cook had himself inoculated 1,500, and of these persons not one had been attacked by plague. Dr. Cook declared that he was unable to find out how plague was brought to Calcutta, and he believed the disease stopped of its own accord, and not by the measures taken for its limitation. He lamented that there was no registration of native practitioners in India, as the people were imposed upon by native *hakims*, who had no idea of rational medicine.

Major Dyson, Sanitary Commissioner, stated that on the railways converging on Calcutta 1,800,000 persons had been inspected and over 40,000 detained as "suspects;" of these, only 6 developed plague.

Major Green, special health officer to the Corporation, stated that plague was not endemic in the neighbourhood of Calcutta; that the city was divided into six sanitary districts, with a medical officer in each, assisted by a lady doctor and eight British nurses. The last known death from plague occurred on September 19th, 1898.

Major Evans, Resident Physician of the Calcutta Medical College Hospital, said that of the 98 cases admitted to the Hospital, 80 died. The disease, he believed, was introduced by infected articles arriving by rail and sea. He held that the disease did not spread in Calcutta for the same reason that it did not spread in Vienna, namely, that the environment was unfavourable for the development of the bacillus. Neither nurses or friends attending patients in hospital contracted plague. He held the opinion that the bacillus reached the system through abrasions on the hands and feet, and in consequence the poorer classes who could not afford boots were the principal victims.

Colonel Saunders, Superintendent of the Mayo Native Hospitals, declared that isolated segregation was a mistake, and contrary to the habits of the people.

Colonel Harris, Officiating Principal of the Medical College, stated that no curative agents had proved beneficial, and that from *post-mortem* appearances it was impossible to ascertain the method of infection.

Major Charles, Professor of Anatomy at the Medical College, stated that a child contracted plague in October, 1896, through playing amongst a bale of goods imported from Bombay. A rat found amongst the same goods had the plague bacillus in its blood. He believed the disease was brought in 1898 in goods carried by sea, and spread by rats from the landing jetties.

Dr. Clemow, District Medical Officer, stated that for the disinfection of houses perchloride of mercury was used, and that no cases occurred in disinfected rooms. He had inoculate 50 cases with Yersin's serum. He took alternate cases as checks. The results were negative, as 40 died and 10 recovered in each group. Dr. Clemow reported 2 cases of a second attack of plague, and both died.

Dr. Justice stated that plague had not, in his opinion, spread in Calcutta, because the *bustis* (native huts) were better ventilated than in Bombay. In Barisal, where he had seen the plague, the disease was of the pneumonic type.

Dr. Bose, a native practitioner, said that plague was brought to Calcutta from Bombay by six men who had deceived the medical inspectors. He believed they carried the infection in their clothing; he did not believe plague could be carried by grain or other articles of food. Natives who were inoculated by serum were looked down upon by the members of their caste, hence the difficulty in getting them to undergo inoculation.

Dr. Hossack. District Medical Officer, said that at Poona Dr. Cayley had obtained plague cultures from clothing supposed to have been rendered septic by disinfection. He believed that there was a factor in the environment of Calcutta inimical to the spread of plague. The native doctors with Indian degrees rendered no assistance, but resisted the efforts of the officials and concealed cases.

Dr. Banerjee held that the native doctors had rendered valuable assistance, as he had received information from them personally. Native patients did not object to being sent to the Mayo native hospitals, and the people objected to having their houses disinfected, as they believed their effects would be burned.

PLAGUE IN MONGOLIA.

According to information gathered by a Russian traveller, Dr. M. Zolotny, plague has reached the Salinke Valley in Mongolia. Dr. Zolotny found some 30 persons suffering from bubonic plague in one village. The people were in abject misery, and their habits and surroundings were filthy in the extreme. An extension in this direction is evidence that Thibet has been infected from India, and explains in all probability the appearance of plague in Samarkand.

INDIA.

In India the mortality returns regarding plague correspond with the records of the last few weeks. In the Bombay Presidency the virulence of the disease is subsiding everywhere. In the Mysore and Hyderabad States the epidemic is waning in the large cities, but spreading rapidly through the rural districts. In the Madras Presidency a few villages are daily added to the list of those infected, but nowhere is the epidemic widespread or the death returns high. At a meeting in Bombay the high priest of the sect of Bohras explained to the 5,000 persons present that there was no religious ground for objecting to inoculation as a preventive against plague. An ex-Sheriff of Bombay, who had convened the meeting, set the example by being inoculated, and a large number of those present followed his example.

MADAGASCAR.

In Madagascar the mortality is increasing rapidly. Since the first outbreak of plague there have been 204 cases and 133 deaths. The nationality of the dead is given as follows: 69 natives of Madagascar, 39 Asiatics, 23 Creoles, and 2 Europeans.

THE VACCINATION ORDER.

AGREEMENTS WITH GUARDIANS.

ENQUIRER writes: Early in December I wrote my Board of Guardians expressing my willingness to meet them with a view to coming to an agreement as regards fees before January 1st, as ordered by the Local Government Board's circular of October 21st last. I heard nothing until December 31st, when I received an intimation that the guardians had resolved to pay me the minimum scale of fees. May I ask your opinion as to whether this intimation, received at the latest possible date, can be construed into the "agreement" mentioned in the Act? One would think that at least two parties were required to an "agreement."

⁂ On December 12th a circular letter was issued by the Local Government Board to every union in England and Wales, and with it was forwarded a memorandum in which the following words occur: "In agreeing what scale of fees shall be submitted to the Board for their approval, it will be for the guardians and the public vaccinator to consider all the circumstances affecting the work which the public vaccinator will be called upon to perform. Specific fees should be agreed upon ...... and those fees should cover all the services of the public vaccinator." At the same time, blank forms were enclosed in which the fees agreed upon were to be entered, and the forms, after being signed by the Clerk to the guardians and the public vaccinator, were to be returned as soon as possible to the Local Government Board for their approval and endorsement. If in any case the guardians have not submitted this form for the signature of the public vaccinator, or if they have submitted it without consulting him beforehand, and he thinks the suggested payments are insufficient, he should at once communicate with the Local Government Board, stating succinctly his reasons for looking on the fees as inadequate, and requesting that they would fix a fairer scale of remuneration.

SCALE OF FEES.

The following notes are in continuation of those already published as to arrangements proposed or accepted;

Ticehurst Union.—(*a*) 2s. 6d., (*b*) 7s. 6d., (*c*) 2s. 6d. (accepted).

St. Columb Major Union.—(*a*) 1s., (*b*) 8s., also a fee for every case where vaccination does not take place because of the insanitary state of the house, or ill-health of child, or refusal of parents, (*c*) 2s. 6d. (accepted).

Guisborough Union.—(*a*) 1s. 6d., (*b*) 5s., (*c*) 2s. 6d., and 1s. per mile after first mile.

Runcorn Union.—(*a*) 1s. 6d., (*b*) 5s. under a mile from public vaccinator's residence, 7s. 6d. over a mile, (*c*) 2s. 6d. (accepted).

Sevenoaks Union.—(*a*) 2s. 6d., (*b*) 5s. under one mile, and 7s. 6d. over one mile from the public vaccinator's residence, (*c*) 2s. 6d. (accepted).

Petersfield Union.—(*a*) 2s. 6d., (*b*) 5s. under two miles, 7s. 6d. over two and under five miles, 8s. 6d. over five miles, (*c*) 2s. 6d. (accepted).

Bodmin Union.—(*b*) Various payments according to districts, varying from 5s. to 9s. A proposal to pay 2s. 6d. in the case of a visit not resulting in vaccination owing to the insanitary condition of the house, or the unhealthy state of the child, or refusal to vaccinate, was lost.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday the 18th day of January next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

December, 1898.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1899.

MEETINGS of the Council will be held on January 18th, April 12th, July 12th, and October 11th, 1899. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 23rd, June 22nd, and September 21st, 1899.

ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

SOUTH-WESTERN BRANCH.—The intermediate meeting of this Branch will be held at 2.30 P.M. on Saturday, January 14th, at the Athenæum, George Street, Plymouth, Hugh M. Montgomerie, M.D., President, in the chair. Luncheon at Risdon's Restaurant opposite the Athenæum at 1.30 P.M. Mr. Paul Swain kindly invites the members present to tea at his residence, 17, The Crescent, at 5 P.M. Agenda.—Cases:—Dr. E. L. Fox: A case of Joint Disease associated with Locomotor Ataxy. Mr. Woollcombe: A case of Inoperable Cancer of the Breast treated by Oöphorectomy and Thyroid Extract. Papers:—Dr. Gordon: Albuminuric Retinitis. Dr. Montgomerie: Notes on a case of Dysentery acquired in the Tropics. Dr. E. L. Fox: A Simple Method of Applying the Treatment of Superheated Air (with demonstration of apparatus). Dr. Bushnell will open a discussion on the Aims and Objects of the National Association for the Prevention of Tuberculosis. Specimens:—Mr. Paul Swain: Stomach (showing malignant pyloric growth), Duodenum and Jejunum from a case of Gastro-jejunostomy by Murphy's Button. Mr. Lucy: Myomatous Uterus removed by Abdominal Panhysterectomy.—H. W. WEBBER M.S., 4, Woodland Terrace, Plymouth, Honorary Secretary.

Metropolitan Counties Branch: North London District.—A meeting of the District will be held at the North West London Hospital, Kentish Town Road, on Wednesday, January 11th, at 4.30 P.M. Dr. Morton will preside. Mr. Jackson Clarke will read a paper on The Early Diagnosis and Treatment of Deformity and Disease of the Spine. Cases of interest will be shown in the wards of the hospital. The District Committee will meet at 4.15 P.M.—H. J. Macevoy, Brondesbury, N.W., Hon. Secretary.

Border Counties Branch.—The next meeting will be held in Penrith about the end of January. Members desiring to read papers, etc., will kindly communicate as soon as possible with the Honorary Secretary, W. F. Farquharson, Garlands, Carlisle.

CORRECTION OF LIST OF MEMBERS.

We find that the name of Dr. J. H. Dauber, 29, Charles Street, Berkeley Square, W., was erroneously inserted in the list of members recently published as "Dead." We hasten to publish this correction, and to express our regret for an unintentional clerical error.

BRITISH MEDICAL ASSOCIATION.

SIXTY-SEVENTH ANNUAL MEETING.

The sixty-seventh annual meeting of the British Medical Association will be held at Portsmouth on Tuesday, Wednesday, Thursday, and Friday, August 1st, 2nd, 3rd, and 4th, 1899.

President: Sir Thomas Grainger Stewart, M.D., LL.D., F.R.S.E., Professor of Practice of Medicine and Clinical Medicine in the University of Edinburgh, Physician in Ordinary to Her Majesty the Queen for Scotland, Edinburgh.

President-Elect: John Ward Cousins, M.D., F.R.C.S., Senior Surgeon, Royal Portsmouth Hospital.

President of the Council: Robert Saundby, M.D., LL.D., F.R.C.P., Physician to the General Hospital, Birmingham.

Treasurer: Charles Parsons, M.D., Dover.

An Address in Medicine will be delivered by Sir Richard Douglas Powell, Bart., M.D., F.R.C.P., Physician Extraordinary to Her Majesty the Queen, Physician to Middlesex Hospital.

An Address in Surgery will be delivered by Professor Alexander Ogston, M.D., Surgeon in Ordinary to Her Majesty the Queen in Scotland, Regius Professor of Surgery in the University of Aberdeen.

The scientific business of the meeting will be conducted in twelve Sections, as follows, namely:

A. Medicine.

President: John Mitchell Bruce, M.D. *Vice-Presidents:* Edward James Wallace, M.D.; Robert William Burnet, M.D. *Honorary Secretaries:* William Sykes, M.D., Bury Place, Gosport; Humphry Davy Rolleston, M.D., 112, Harley Street, W.

B. Surgery.

President: Henry Trentham Butlin, F.R.C.S. *Vice-Presidents:* Deputy-Inspector-General Richard Samuel Purnell Griffiths, R.N.; Alfred Lloyd Owen, M.D. *Honorary Secretaries:* Henry Rundle, F.R.C.S., 13, Clarence Parade, Southsea; D'Arcy Power, F.R.C.S., 10A, Chandos Street, Cavendish Square, W.

C. Obstetrics and Gynæcology.

President: George Granville Bantock, M.D. *Vice-Presidents:* John Robert Kealy, M.D.; John Wm. Taylor, F.R.C.S. *Honorary Secretaries:* Charles Plumley Childe, F.R.C.S., Cranleigh, Kent Road, Southsea; Ernest Wilmer Phillips, M.R.C.S., Victoria Crescent, Victoria Road North, Southsea; Walter Wm. Hunt Tate, M.D., 57, Queen Anne Street, W.

D. State Medicine.

President: George Wilson, M.D. *Vice-Presidents:* Surgeon-General Charles MacDonagh Cuffe, C.B.; Joseph Groves, M.B. *Honorary Secretaries:* Henry Richard Kenwood, M.B., Granville House, Alexandra Villas, Finsbury Park, N.; A. Mearns Fraser, M.B., Epworth, St. Edwards Road, Southsea.

E. Psychology.

President: David Nicolson, C.B., M.D. *Vice-Presidents:* Samuel Rutherford McPhail, M.D.; Peter William MacDonald, M.D. *Honorary Secretaries:* James Neil, M.D., Warneford Asylum, Oxford; Bonner Harris Mumby, M.D., Medical Superintendent, Boro' Asylum, Portsmouth.

F. Anatomy and Physiology.

President: John James Charles, M.D. *Vice-Presidents:* Aurelius Victor Maybury, M.D.; Andrew Francis Dixon, M.B. *Honorary Secretaries:* Edwin John Norris, M.R.C.S., May Villa, Cottage Grove, Southsea; Wm. Joseph Essery, M.B., Netley Lodge, South Parade, Southsea; Marcus Seymour Pembrey, M.D., Charing Cross Hospital, W.C.

G. Pathology.

President: Joseph Frank Payne, M.D. *Vice-Presidents:* Frederick John Driver, M.D.; Otto Jackson Kauffmann, M.D. *Honorary Secretaries:* Edmund Fauriel Trevelyan, M.D., 40, Park Square, Leeds; William Carling, M.B., 11, Roseberry Terrace, Highland Road, Southsea.

H. Ophthalmology.

President: Simeon Snell, F.R.C.S.Edin. *Vice-Presidents:* Lysander Maybury, M.D.; Edward Treacher Collins, F.R.C.S. *Honorary Secretaries:* Arthur Vernon Ford, M.R.C.S., South View Lodge, Kent Road, Southsea; Arnold Lawson, F.R.C.S., 12, Harley Street, W.

I. Diseases of Children.

President: Edmund Owen, F.R.C.S. *Vice-Presidents:* James Green, M.R.C.S.; Dawson Williams, M.D. *Honorary Secretaries:* Alfred Herbert Tubby, M.S.Lond., 25, Weymouth Street, Portland Place; George Augustus Tullis, M.D., 20, Clarence Parade, Southsea.

J. Pharmacology and Therapeutics.

President: John Buckley Bradbury, M.D. *Vice-Presidents:* C. H. Watts Parkinson, M.R.C.S.; Samuel Goss, M.R.C.S. *Honorary Secretaries:* John Edward Harry Kelso, M.B., 67, Elm Grove, Southsea; William Tusting Cocking, M.D., 277, Glossop Road, Sheffield.

K.—Laryngology and Otology.

President: E. Cresswell Baber, M.B. *Vice-Presidents:* Josia George Blackman, M.D.; Patrick Watson Williams, M.D. *Honorary Secretaries:* Herbert Tilley, M.D., 101, Harley Street, W.; Lyster Cole-Baker, M.D., Bayfield, Kent Road, Southsea; Thomas Arthur Munro Forde, M.R.C.S., 21, Clarence Parade, Southsea.

L.—Tropical Diseases.

President: George Thin, M.D. *Vice-Presidents:* Colonel Kenneth McLeod, M.D.; James Watson, M.D. *Honorary Secretaries:* Fleet-Surgeon John Tyndall, R.N., Tresco, St. Ronan's Road, Southsea; John Robert Stevenson Robertson, M.B., 5, Western Parade, Southsea.

Programme of Proceedings.

Tuesday, August 1st, 1899.

9.30 A.M.—Meeting of 1898-99 Council.
11.0 A.M.—Church Service; Sermon by the Right Reverend the Lord Bishop of Winchester.
2 P.M.—First General Meeting. Report of Council. Reports of Committees; and other business.
8.30 P.M.—Adjourned General Meeting from 2 P.M. President's Address.

Wednesday, August 2nd, 1899.

9.30 A.M.—Meeting of 1899-1900 Council.
10 A.M. to 1 P.M.—Sectional Meetings.
2.30 P.M.—Second General Meeting. Address in Medicine by Sir Richard Douglas Powell, Bart., M.D.

Thursday, August 3rd, 1899.

9.30 A.M.—Meeting of Council.
10 A.M. to 1 P.M.—Sectional Meetings.
2.30 P.M.—Third General Meeting. Address in Surgery by Professor Alexander Ogston, M.D.
7 P.M.—Public Dinner of the Association.

Friday, August 4th, 1899.

10 A.M. to 1 P.M.—Sectional Meetings.
2.30 P.M.—Concluding General Meeting.

Saturday, August 5th, 1899.

Excursions.

Honorary Local Secretaries.

C. C. Claremont, M.D., 57, Elm Grove, Southsea.

C. P. Ruel, M.R.C.S., L.R.C.P., Cromwell House, Kent Road, Southsea.

ANNUAL MUSEUM.

The Annual Museum in connection with the sixty-seventh meeting of the British Medical Association will be arranged in the following Sections:

Section A.—Food and drugs, including prepared foods, chemical and pharmaceutical preparations, etc.

Section B.—Instruments comprising medical and surgical instruments and appliances, electrical instruments, microscopes, etc.

Section C.—Books, including diagrams, charts, etc.

Section D.—Sanitary Appliances and Ambulances.

A fine and well-lighted hall will this year be utilised for the purposes of the Museum. This room is 150 feet in length, and 60 feet in width, and is in close proximity to the Reception Room.

Exhibitors (other than members of the medical profession) will be charged for table, floor and wall space as follows: In Sections A, B, and C, from 2s. 6d. per square foot, depending on the position of the table; tables 3 feet and 3 feet 6 inches wide being provided. In Section D, 6d. per square foot for floor space (all fittings to be provided by the exhibitor). Wall space (where available) will be charged for advertisements at 6d. per square foot. Section D will be held in the Swan Street Board School, a short distance from the Drill Hall.

Advertisements in Museum Catalogue.—A catalogue will be printed, and 2,000 distributed gratis to members of the Association. Prepaid advertisements, to be sent before June 20th, will be inserted. Further particulars will be sent on application.

The plans of the hall and forms of applications for space will be ready early in May.

Regulations.

1. All communications on general matters connected with the Museum, and all applications for space, should be addressed to Mr. James McGregor, 9. St. Mary's Crescent, Fratton Road, Portsmouth, before June 1st. N.B.—No space will be allotted before that date.

2. A brief description of each exhibit for insertion in the Museum Catalogue must be in the hands of the Secretary before June 20th.

3. Space will as far as possible be allotted in the order of application, and in proportion to the amount applied for, the Committee reserving power to give preference to *bonâ fide* inventions and improvements not previously exhibited, and also to refuse any exhibit they may consider unsuitable.

4. In the event of more space being applied for than is actually available, the allotment will be made at the discretion of the Committee.

5. The Committee reserve to themselves the power to utilise any of the floor space set apart for Section D (if it is not all required for sanitary exhibits) for the erection of additional tables, or for any other purpose they may think fit.

6. All exhibits should be addressed to the Secretaries of the Museum, British Medical Association, Drill Hall, Grigg Street, Portsmouth, with the name of the Section for which they are intended, with the exception of those for Section D, which should be addressed The Board School, Swan Street, Portsmouth. Packages should not be addressed to a firm's representative at the Museum.

7. All exhibits must be delivered between July 27th and July 29th, and each package must bear a card showing the name and address of the exhibitor.

8. All exhibits must be placed in the allotted space by 2 p.m. on July 31st.

9. No signs or placards will be allowed in the hall which may interfere with neighbouring exhibits. No exhibit or placard on the central tables must reach higher than 2 feet 6 inches from the table. The arrangement of signs, placards, exhibits, etc., will in every case be subjected to the approval of the Committee.

10. Intimation of the space allotted to each exhibitor will be sent as promptly as possible after June 1st, marked upon a plan. On receipt of cheque for the cost of such space, a card for the admission of the exhibit will be sent.

12. All cheques to be made payable to Mr. James McGregor, 9, St. Mary's Crescent, Fratton Road, Portsmouth.

13. No exhibits will be received except on the understanding that the above regulations are strictly complied with.

H. Rundle, F.R.C.S., *Chairman*,
13, Clarence Parade, Portsmouth.
R. Emmett, M.R.C.S., L.R.C.P.,
83, Kingston Road, Portsmouth.
James McGregor, L.R.C.P. & S.Edin.,
9, St. Mary's Crescent, Portsmouth.

Pathological Museum.

Specimens of interest for exhibition in the Museum should be forwarded, addressed to the Secretary of the Pathological Museum, British Medical Association, Boys' School, Seaman's and Marines' Orphan Home, Portsmouth, during the last week in July; and a brief description of each exhibit for insertion in the Museum catalogue must be in the hands of the Secretary by June 20th. Intending exibitors are requested to communicate with the Secretary of the Pathological Museum, Staff-Surgeon L. Lloyd Thomas, R.N., Royal Naval Depôt, Portsmouth. All specimens must be mounted ready for exhibition.

SPECIAL CORRESPONDENCE.

BERLIN.

The Establishment of Sanatoria for Consumptive Patients in Germany.—Revision of the German Pharmacopœia.—Professor Esmarch on the Dum-dum Bullet.—General News.

The German Central Committee for the establishment of lung sanatoria—of which the German Empress is Lady Patroness, and the Imperial Chancellor, Prince Hohenlohe, honorary President—though it has been in existence only for the last three years, can already look back on efforts crowned with signal success. A number of sanatoria have been opened, and the results obtained prove convincingly that persons of the poorer classes attacked with lung disease can be treated efficaciously, and in many cases restored to health, while remaining in close proximity to their homes and places of work. Before long the number of German sanatoria available to the poorer classes will have reached fifty. This result has been achieved thanks to a widespread agitation all through the empire for the collection of contributions, and also to the co-operation of the various workmen's sick and provident societies, to the Red Cross Society, and above all to the State department for insurance of working men and women, the President of which, Geheimrath Gaebel, is one of the most active members of the Committee. The annual meeting of the Central Committee will be held on January 9th, and the report is looked forward to with unusual interest. The local branch society, known as the "Berlin Brandenburg Society for Lung Sanatoria," is also under the special patronage of the German Empress. Professor von Leyden took the chair at the yearly meeting held just before Christmas, and reported progress of the sanatorium in Belzig (near Berlin), at present in course of construction, and which will shortly be ready for occupation. The building and furnishing will cost about 610,000 marks (£30,500), of which four-fifths have already been raised by the Society, while the rest is to be covered by a mortgage. The situation is described in the report as in every way an advantageous one; the ground is dry and sandy. In the wards an air-space of 25 cubic metres is to be allowed per bed. The question of special lung sanatoria is also being considered by the directors of the Prussian State railways, and a meeting—which, however, was more of an informatory character—has been held for the purpose of ventilating the subject. Delegates from the Prussian Ministry of Public Works, the President and Chief Manager of the Railway Officials' Pension Fund (to which all railway officials, high and low, are obliged to contribute a fixed proportion of their salaries), and the managers or presidents of all the railway sick funds were present, and in connection with the meeting a visit was paid to the Red Cross Society's sanatorium near Oranienburg, where the chief physician, Dr. Brecke, explained all the arrangements and the details of the treatment. At the meeting itself statistical tables of the therapeutic results obtained in the new sanatoria were distributed.

BOSTON MEDICAL LIBRARY NOV 8 1899

The committee for the remodelling of the German *Pharmacopœia* will sit in the Imperial Board of Health building from January 6th to the 10th.

An "open letter" by Professor von Esmarch, pleading for a more humane method of warfare, has appeared in the monthly periodical, *Deutsche Revue*, and is going the round of the daily papers. He discusses the Dum-dum bullet, and Professor Bruns's well-known experiments on corpses with a similar projectile, that is a bullet, the hard metal covering or mantle of which has been removed at the point, and he comes to the conclusion that this bullet, though perhaps permissible in warfare with savage races, should be forbidden in European warfare. At the International St. Petersburg conference of 1868, says Esmarch, explosive bullets of less than 400 grams weight were prohibited in future warfare, and this decision has ever since been strictly adhered to by all the nations of the conference. If the Peace Conference of 1899 were to rule that in future only such small calibre lead bullets should be used in war as are covered entirely, or at least at their point with a mantle of hard metal, it would be acting in a spirit of humanity in harmony with the intentions of its august convener.

In February, that is at the height of the Berlin "season," a musical *soirée* on a large scale is to be held in aid of the funds of the Berlin Ambulance Society. Professor v. Leyden is at the head of the *Soirée* Committee, and has chosen as helpers several persons of influence in the fashionable world.

PARIS.

Medical Experts in the Law Courts.—The Plague at Tamatave—A Memorial to Dr. Feulard.

M. Cruppi recently laid before the Chamber of Deputies a Bill for reforming medical expert evidence. M. Cruppi proposes that a list of medical experts should be drawn up every year. None but men of undoubted scientific ability should be on the list; the accused person should have the right to name his or her own expert, who should work in co-operation with the expert named by the judge. In cases where the two experts do not agree the matter should be decided by a Committee composed of eminent scientific men. The Commission of Judicial Reform is considering the question.

Owing to prompt and effective sanitary measures the plague epidemic at Tamatave has considerably abated. The European population and the troops have completely escaped. On the other hand, in the neighbouring villages, where the sanitary measures have not been so thoroughly carried out, many deaths from plague have occurred. The Minister of the Colonies has sent out ten doctors and several nurses. M. Thiron, a medical officer of the navy, who for the last two years has been attached to the Pasteur Institute, is placed at the head of the expedition. He takes with him a good supply of serum and disinfecting apparatus recently purchased by the Colonial Minister.

Not long ago a bust was placed in the library of the Saint Louis Hospital in memory of Dr. Feulard, who, it may be remembered, was burned to death at the Charity Bazaar. He believed he had rescued his wife and daughter, but finding to his horror that his child was not with them returned to the burning building to search for her, and both perished. Dr. Napias, Director of the Assistance Publique, presided at the ceremony. Dr. Feulard at the time of his death was Director of the museum and library of the St. Louis Hospital. M. Napias and Professor Besnier in their addresses dwelt on his value as a scientist, and his generous and upright mind. M. Lampère of the Municipal Council recalled the constant help which he gave to charitable and philanthropic work. M. Faillet, also a Municipal Councillor, who obtained a grant of money from the Council for the monument, announced that a Paris street is to be named after Dr. Feulard.

BRISTOL.

Sewage Disposal.—The Advantages of not Ventilating Sewers.

The report of the Sanitary Committee on the disposal of sewage has just been published, and is of considerable interest, as it negatives the oft-repeated statement that unventilated sewers are dangerous to health. The Committee reported in October, 1897, that the only means in their opinion for disposal of the sewage was by direct discharge into the Bristol Channel, and permission was granted to prepare a scheme or schemes whereby this might be effected. They consulted Mr. Santo Crimp, who recently reported that four schemes were possible: (1) Conveying the sewage to Pill, and after treating it chemically discharging it into the Avon; (2) discharging the sewage untreated at Charlcomb Bay or (3) at Black Nose, both places being lower down the Severn than the mouth of the Avon; and (4) discharging the sewage at Avonmouth. The capital cost of these schemes was (1) £366,000, with a total annual cost for forty-five years of £24,628; (2) £769,272, annual cost £31,376; (3) £522,100, annual cost £23,695; (4) £379,700, annual cost £17,487. Of these No. 4 appears to be the best, for the set of the tide, as measured by floats, would carry the sewage well out into mid-channel, and the chance of fouling the shores at places lower down the Severn would be avoided.

The Committee also reported that, after consultation with Mr. Crimp and the medical officer of health, they do not recommend the ventilation of the city sewers. For the sake of comparison, Brighton—a town with fully-ventilated sewers and a tidal outfall like that of Bristol—was taken. During the eleven years 1880 to 1890 the zymotic death-rate in Brighton was 2.16, in Bristol 2.12, and further analysis shows that by selecting certain diseases generally associated with sewer gas—namely, diphtheria, diarrhœa, and fever—the figures for Brighton are 0.98, for Bristol 0.77. The report states that sewer gas will not be forced back into dwelling houses if the house drains are properly constructed, and that a great outlay (about £40,000) would have to be incurred in ventilating the existing sewers. With this report is one by Dr. Davies, the medical officer of health, who goes still further into statistics, showing that the death-rate from all causes is remarkably low in Bristol, and more so in Clifton, a district which contains many working men's houses. For his comparison he takes Croydon, because it has the lowest death-rate for the thirty-three great towns and has ventilated sewers. The general death-rate of Clifton is lower than Croydon; Bristol as a whole is higher. For fever Croydon and Bristol are the same, while Clifton is much lower. For diphtheria the rate at Croydon is more than double that of Bristol and five times as great as that of Clifton, which is less than a quarter of that of the thirty-three large towns and less than a seventh of the London rate. Fatal diarrhœa is about equal in Bristol and Croydon (49 and 46), but these are much less than London (67) and the other big towns (84); Clifton is only 21. The infant mortality-rate is 146; Croydon is lower (126), but London is 155 and Brighton 149. Dr. Davies points out that these facts speak very eloquently in favour of keeping the sewers in their present unventilated state, and that it would be a most disastrous state of things if an outbreak of diphtheria were to follow on putting in ventilators. The complaint that the street gullies smell is due to the evaporation of the water in the seals, and these complaints are not as frequent or as serious as those which are heard in towns with ventilators in the streets. There seems, in fact, to be little if anything to be gained by introducing ventilators, and it might mean that the present satisfactory condition of things would cease to exist. It certainly would involve a very great outlay which, in the face of the above facts, hardly seems justifiable.

MONTREAL.

College of Physicians and Surgeons of the Province of Quebec.—British Pharmacopœia in Canada.—Interprovincial Registration.—Medical Faculty of McGill University.

Under the present provincial law the executive of the College of Physicians and Surgeons of the Province of Quebec consists of a Board of forty-two governors, eight of whom are appointed as representatives of the Medical Faculties of the Universities of McGill, Bishop's, and Laval, and the remainder are elected to office for a term of three years. As voting by proxy is allowed and the elective governors are chosen from the members of the whole College without regard to districts, it is possible for an individual, by obtaining the necessary number of proxies, to determine the election of nearly the whole Board. This, it is asserted, has repeatedly been done in the past. Some months prior to the last election a Reform Committee was formed whose candidates were pledged, if elected, to obtain legislation for the abolition of voting by proxy, and for the division of the province into electoral districts each having the power of choosing its own representative on the Board of Governors. The reform candidates were elected by an overwhelming majority, and during the coming session of the Provincial Parliament an effort will be made to have the proposed changes become law.

The issue of the new edition of the *British Pharmacopœia* has brought up the question of its status in Canada. For, although it has virtually always been accepted as such, the *British Pharmacopœia* has never been officially recognised as the *Pharmacopœia* of Canada. At the recent annual meeting of the Canadian Medical Association at Quebec a Committee was appointed to endeavour to bring about a Dominion enactment to this effect. By an agreement between the Montreal Medico-Chirurgical Society and the Province of Quebec Pharmaceutical Association October 1st had been fixed upon as the date for the coming into force of the new edition in this province. The Canadian Medical Association recommended that the same date be accepted for the whole Dominion.

Interprovincial registration has long been the dream of the most advanced medical thinkers of our Dominion, and it now seems in a fair way of being accomplished. The main difficulty in the way in the past has been the unwillingness of the Provincial Boards to release control of medical education within their respective provinces. The late President of the Canadian Medical Association (Dr. Beausoleil) devoted the annual address to the consideration of this subject, and a Committee, consisting of representatives from all but one of the provinces, prepared a report as a basis of agreement. It is thought to overcome the difficulty alluded to by having the Central Examining Board for the Dominion appointed by the Medical Councils of the various provinces. A draft of the proposed changes have been sent to the Councils of the different provinces to be ratified, and, when this is done, the necessary Federal legislation will be asked for.

Attendance at the medical schools is somewhat above the average. The figures for the Medical Faculty of McGill University show an increase of the total number of undergraduates from 405 in 1897 to 428 in 1898. The different years are represented as follows: first year, 130; second year, 124; third year, 95; final year, 79. Returns have not yet been received from the other schools.

CORRESPONDENCE.

THE NEW MIDWIVES BILL.

SIR,—Those who objected to the Midwives Registration Bill of 1898 may fairly congratulate themselves on having helped toward the introduction of a much more practical scheme. The new Midwives Bill does what is wanted in a reasonable way, and nothing more. It creates a Central Midwives Board of six persons who shall frame rules subject to the approval of the General Medical Council regulating the conditions on which women can be licensed as midwives, and have their names entered on the roll of midwives. The Central Council will also appoint examiners, decide where and when examinations shall be held, the conditions under which midwives may be removed from the roll, suspended temporarily from practice, or restored to the roll. They will also issue licences.

The midwives licensed by the Central Board will have further to obtain a certificate from the local supervising body appointed by the county council for the locality in which they intend to pursue their calling. This local body will probably consist of the leading medical practitioners of the town or district. It will be their duty to exercise general supervision over the midwives in the prescribed area, and to report to the Central Board if a midwife breaks the law, or if she is convicted of misdemeanour or felony.

It will depend upon the way in which the local supervising authorities do their work how far the licensed midwife becomes a most useful ally or a rival to the general practitioners of her district. If the local supervising body is properly constituted, and if it contains all those practitioners who have any claim to be on it, if it sets itself to train the midwives and then to help them fairly as consultants when occasion arises, the relations between the midwives and the medical practitioners may be as amicable and pleasant as they are between the midwives and consultants of the Royal Maternity Charity. No one ever objected to midwives being properly taught and put upon a roll. What was disliked last year was a scheme which threatened to create a class of very inferior practitioners who would have been in effect quite independent in their work. This need not be the case now if the local supervising bodies go into the business of training and overlooking the women in a thorough and friendly way. It is quite certain that midwives will continue to be employed. If the present scheme meets the objections felt to the Bill of 1898, it will be wise to support it.—I am, etc.,

Upper Berkeley Street, W., Jan. 4th. E. GARRETT ANDERSON, M.D.

THE GENERAL MEDICAL COUNCIL.

INSPECTION OF DOCUMENTS.

SIR,—As Dr. Glover's account of what passed in the session of the Council last May on the subject of the inspection of documents is not complete, it may unintentionally mislead your readers. Dr. Glover says he has always held it to be the "right and duty" of the members of the Council to inspect as far as possible all documents of the Council, and he says that this "right is so obvious that it does not need discussion." Allow me to point out that this "right and duty" was enjoyed and exercised by the members of the Council without let or hindrance from the original foundation of the Council in 1859 until Sir W. Turner was elected President on April 7th, 1898. On that day he solely on his own responsibility ordered the Registrar to refuse me the exercise of my right which Dr. Glover now finds to be incontestable and, indeed, for that reason not to be worth discussion. Until April 7th, 1898, therefore, there was no necessity for Dr. Glover or anyone else to move any resolution to "facilitate," as he terms it, the inspection of documents. The ordinary meaning, by the way, of the word "facilitate" is to "render easy." We shall see directly what is Dr. Glover's notion of rendering public business "easy."

The President, on my remonstrance, reiterated his confiscation order in language which even Dr. Glover and Dr. Bruce, to whom I showed his letters, did not mistake for politeness; and I quite agree with Dr. Bruce in the letter you publish, that if such "demands" on our liberty and rights, though wholly improper, are going to be made by the President, they would perhaps be better received if "put in more courteous terms" and "not at the point of the bayonet."

The matter, therefore, at the opening of the session in May, 1898, stood thus. The right of the members of the Council to inspect the documents was arbitrarily abrogated by the President.

Yet neither Dr. Glover nor Dr. Bruce made the slightest attempt to recover this right thus wrenched from the members. On the contrary, Dr. Glover made haste to censure me in public debate for daring to report to my constituents what the President had done, and with Dr. Bruce voted that the President's unconstitutional act was perfectly correct! He then proceeded to gravely aggravate the situation by moving a resolution on the subject, the terms of which were drafted (? by Dr. Glover or by Dr. MacAlister), first, so as to hopelessly complicate the legality of the situation, according to Mr. Buckley, Q.C.; secondly, so as to render it impossible for any member to inspect any document relating to the legal and penal business of the Council during the six months' interval between the sessions; and, finally, so as to place the "obvious right" of the members at the mercy of the President, who had already shown to what lengths he was prepared to go in the direction of usurpation.

Nevertheless it seems we are now to understand that Dr. Glover considers this resolution of his to have had two objects—namely, (1) to secure the right of members to freely inspect all documents, (2) to "secure the care of all documents."

To think, as Dr. Glover now suggests we ought, that his resolution, which permanently took away our existing right, also "secured" the same right, is bewildering, but perhaps in your next issue we shall be favoured by Dr. Glover with an explanation how this feat can be performed without the assistance of Mr. Maskelyne and the resources of the Egyptian Hall.

Now for Dr. Glover's second suggestion, namely, that he intended his resolution "to secure the care of the documents," and that "in its final form as adopted by the Council the care of the documents was more in evidence (!) than the convenience of members who might wish to study them." To correctly appreciate the full meaning of this statement, I must first remind your readers what his resolution was. Dr. Glover's resolution ran as follows:

> That members of the Council who desire access to documents which are the property of the Council be required to obtain leave for inspection either from the Council, the Executive Committee, or when neither body is in session or about to be in session from the President. The application for leave to be in writing, and to specify as far as possible the nature of the documents to which access is desired, and also the purpose for which the inspection is to be made. Leave to inspect documents relating to penal cases not to be given except by the Council itself. All information obtained from the inspection of documents to be regarded as strictly confidential.

Dr. Glover says this resolution contains provision for the care of the documents, and above all against their loss.

Will Dr. Glover kindly point out in his next letter where such provision exists in his resolution, and whether any ordinary person can see such provision without employing Mr. Sam Weller's "double million magnifying gas microscopes of hextry power." As to actual provisions for the "care of the documents," no such provisions were ever made, nor even mentioned, during the session of May, 1898, and in fact it was not until November when we carried against the desperate resistance of the President and Dr. MacAlister—which obstruction alone cost the profession over £100—the first of my motions for the production of documents, that any suggestion as to how the documents were to be specially protected was made. It may amuse your readers to know that one of those provisions agreed upon was that, to safeguard the Registrar, who is responsible under the Medical Act, 1858, for the safe keeping of the documents, a clerk should always be in attendance during the whole time that any member of the Council was reading the papers; and yet when I happened to go down to the cellar to which earnest inquirers after facts were relegated for the purposes of documentary research, I discovered Dr. Glover in that "well of truth" inspecting the documents freely in the absence of any clerk or any representative of the Registrar whatever.

No one can deny that Dr. Glover in thus ignoring his own hampering regulations was "facilitating" at any rate his own personal inspection of the documents. Perhaps, however, the most humorous comment on Dr. Glover's letter is the first paragraph of Dr. Bruce's note you publish immediately beneath it. Dr. Bruce on Christmas Eve honestly and frankly says in his first paragraph that he and Dr. Glover voted in May, 1898, "for restrictions on the liberty of members who wished to consult the documents belonging to the General Medical Council." Whereas Dr. Glover, writing on Boxing Day, says that they—that is, Dr. Bruce and himself, voted to "secure" the unrestricted right of members to consult "all the documents belonging to the Council." The profession will forthwith have the opportunity of deciding between these two gentlemen as to which is the more accurate; they cannot clearly both be right, although each at the end of his letter contributes a testimonial to the merits of the other.

Dr. Glover also in his letter travels over other ground in relation to this all-important subject in a manner which is rather more incomplete, and therefore also needs a little reinforcement. He says he is "a lover of light and free discussion," and that he gave his "cordial support" to Mr. Brown and myself to obtain inspection of the documents in the celebrated Hunter case. As one of the officials responsible for the Hunter scandal, Dr. Glover could hardly do less, and it was perhaps also to be expected that subsequently, in reply to a remark of Mr. Brown's on his (Dr. Glover's) responsibility in the Hunter case, he indignantly rose and said "all that he desired was a fair and square inquiry into the facts of the said case." However, as soon as the opportunity was offered to him by my resolution which brought up the matter, Dr. Glover by abstaining from voting on it caused the defeat of my resolution, lost as it was by only a bare majority of one. The innocent members of the Council, I need hardly add, are legally made, by this act of Dr. Glover, unwilling participators in this disgraceful affair.

But after all that Dr. Glover says by way of extenuation or "explanation" of his resolution, the fact remains that at this very moment the members of the Council are deprived of their "obvious right" to inspect the documents, and when one reads what Dr. Glover says he said, and what he thought, and what he meant, one is irresistibly reminded of Mr. Rudyard Kipling's ballad of Tomlinson, and how when that worthy's soul arrived at Heaven's gate and was asked by St. Peter to justify himself by recounting "the good that he did for the sake of men in little earth so lone" gave such an unsatisfactory explanation that—

> Peter twirled the jangling keys in weariness and wrath.
> Ye have read, ye have heard, ye have thought, he said, and
> the tale is yet to run,
> By the worth of the body that once ye had, give
> answer—What ha' ye done?

The profession will await with much interest the final reply to this question.—I am, etc.,

Cavendish Square, W., Jan. 1st. VICTOR HORSLEY.

SIR,—I have read and re-read Dr. Glover's letter, but fail to see that he has answered my query asking for an explanation of his motion "curtailing the liberty of members of the Council inspecting documents." What was his original motion, backed by Dr. Bruce, which was to insure perfect freedom of access to, with security of, the documents of the Council? I should have thought that any member of the Council might have been trusted to take due care of documents.

Seeing the strong views that Dr. Glover holds concerning the rights and duties of a member, I would like to ask him another question—namely, Why he did not protest against the arbitrary and unconstitutional conduct of the President on the first opportunity?

Dr. Bruce seems to look upon the question as one of peace. If you get an autocratic President who seems to regard himself as the Council, and on his own responsibility issues orders curtailing the liberty of another member, I cannot look upon it as a question of peace at all, but it is a fight for very existence, even if at the point of the bayonet.

It is not everyone who can regard his duty so lightly as Dr. MacAlister, who appears to think inspection of documents a work of supererogation. Members should be encouraged rather than hampered in doing what they conceive to be their duty.

I look upon this interference with the rights of members as a disgraceful episode, only equalled by the prosecution of the late Mr. Hunter. It may not be good taste for a registered practitioner to put either "physician" or "accoucheur" on his doorplate, but I never knew till now that it was a crime. Surely if an L.S.A. may call himself surgeon, any ordinary person would conclude that he might also call himself physician, seeing that he acts as a physician at least nine times to once as a surgeon.

Clapham Common, Jan. 3rd. EDWIN H. ROE.

SIR,—Dr. Glover's reply to Dr. Roe's plain question can hardly be regarded as satisfactory by any right-minded member of the medical profession. Dr. Glover, like the other direct representatives, was elected to safeguard our highest interests, and not to oppose his colleagues who (in the face of the most strenuous opposition) are honourably endeavouring to fulfil their undertaking to their constituents. Dr. Glover first tries all he can to lock and bar the door, and then tells us that "it is not only the right but the duty of every member of the Council to inspect *as far as possible* (the italics are mine) all its documents." We are not children, to be stultified with such stuff. We all agree that our representatives on the Council have a right to inspect any and every document in the possession of that body. Of what use are our representatives if they are not to be permitted full and complete knowledge of such papers? It is quite clear to me and to all thinking men that the time has come when the profession will no longer be satisfied with so ridiculously small a direct representation on the General Medical Council. We want more men and we mean to have them.—I am, etc.,

Wimpole Street, W., Jan 4th. WILLIAM E. BURTON.

THE MEDICAL ACTS AND THE MEDICAL PROFESSION.

SIR,—It had always been supposed, until Mr. Horsley advanced his now well-known interpretation of the Medical Acts, that they protected titles and did not protect medical practice. If he is correct, the Medical Acts as they stand do protect practice and not title merely. At the meeting of the Parliamentary Bills Committee in July, a subcommittee brought up a draft Medical Acts Amendment Bill, and this is, I believe, to be considered at the meeting of the Committee this month. Certain clauses in this draft Bill deal with this very question, and would forbid any person except a registered medical practitioner to practise medicine, surgery, or midwifery habitually and for gain, under penalties. If we are to go to Parliament with a Bill containing such provisions, ought it not first of all to be settled, as far as possible, whether Mr. Horsley's interpretation of the Acts is or is not correct?

The question is a legal one, and would best be settled by taking a test case to the higher Court, but failing that, it would be helpful to have the formal opinion of some eminent barrister upon the point. It seems to me that in applying to Parliament for new powers, our case will be very much weakened if we are open to the retort that powers already exist under the Medical Acts of which efficient use has not yet been made.—I am, etc.,

Gloucester Place, W., Jan. 3rd. C. HOLMAN.

SIR,—I observe that in the BRITISH MEDICAL JOURNAL of December 31st, 1898, your anonymous "legal correspondent," who is still so uncertain of his law as to be afraid to publish his name, is allowed further space in the JOURNAL and without stint wherein he may continue his (evidently innocent but none the less undesirable) misrepresentations of the Medical Acts while posing as a legal authority. Though compelled by my criticisms at Manchester[1] of the article which he published in the JOURNAL of November 26th, 1898, to confess that he entirely misled your readers *re* the proper use of the stock legal maxim, "*ubi jus ibi remedium*" he nevertheless positively repeats his error, for at the top of page 1995 he recounts what I stated at Manchester in such a way as to convey that our incontestable right to alone sue for fees is somehow or other a remedy against the violation of Section VI, 1886, which Section gives registered practitioners alone the right to practise.

I showed at Manchester that this fee question had nothing whatever to do with the question who has the right to practise, and I exposed your correspondent's constructive misrepresentation of the maxim *ubi jus*, etc., which he employed in support of his indefensible statement that Section XXXII was the remedy for violation of Section VI, 1886. Although he confesses his fault in the first column of his letter, p. 1995, you permit him, a few paragraphs further on, to repeat it in part, under shelter of anonymity.

I now return to your correspondent's misreading of Section (not "Clause," as he, though professedly a lawyer, terms it) XL.

He denied on November 26th *in toto* the existence of "any" Section in the Acts "imposing a penalty on anyone practising without having been registered," and he did not even qualify his denial by laying the stress on titles as he apparently now seeks to do. I exposed the complete fallacy of this assertion by of course referring him to Section XL of the Act of 1858.

Fortunately for your readers he now gives in full the said Section XL, whereby they can see for themselves that if anyone professes (1) to be a practitioner, or (2) assumes any medical title (either of such acts implying that he is registered), he shall be liable to a penalty.

What can be clearer than this? It is quite obvious that your nameless legal correspondent, who a month ago denied the bare existence of Section XL, but who now publishes it (on December 31st) as his own discovery, is also ignorant of another Section of the Act, namely, Section XXXIV, for he evidently does not know what the definition of a qualified practitioner is under the Act.

The Act says (Section XXXIV) that a "duly qualified medical practitioner" is a person registered under this Act. It does not say a word about titles; it refers to practice, and practice only. This defining Section XXXIV when read as it was obviously intended to be in connection with Section VI, 1886, and Section XL, 1858, will show your irresponsible "legal" correspondent that he has only been furnishing the members of the British Medical Association with a very poor *réchauffé* of the pernicious description which several of the senior members of the General Medical Council and pre-eminently Mr. Carter for so many years gave of our legal rights. It may be remembered by some that in the *Lancet* a short time ago Mr. Carter in a strikingly similar way to your correspondent flatly denied the existence of Section XL. Such conduct, unpardonable in a member of the General Medical Council like Mr. Carter, becomes maleficent when sanctioned by the authority of a "legal" gentleman such as we understand your nameless correspondent to be. Of course if a person named "John Jones" calls himself (as your correspondent suggests) "the greatest Healer of the Age," and practises medicine he comes under *b* of your correspondent's queries, for in the language of the Medical Acts he is employing a name, title, addition, or description implying that he is a person qualified to practise medicine.

If John Jones calls himself a "Healer," it occurs to the ordinary person that John Jones wishes to make the public believe that he can heal, that is practise medicine, but evidently many lawyers, among whom I suppose we must include our innominate opponent, though they take very good care to impregnably protect their own professional practice prefer not to look at this simple question in the same way that ordinary persons and medical practitioners do.

In conclusion, I must once more protest in the strongest possible manner against the way in which you, Sir, are permitting this discussion on our legal privileges to be conducted. If my public statements on a surgical or medico-ethical matter are criticised by my professional colleagues, they do not hide behind such *noms-de-plume* as a "Surgical Correspondent," "The Writer of the Article," etc., they sign their own names in a straightforward manner. Why should the question of the legal rights of the medical profession be treated differently by you? Surely if a medical practitioner venture in the public interest his reputation for common sense or accuracy by publishing serious statements on legal subjects over his own name, it is at least due to him that anyone (particularly a putative lawyer) criticising his statements should have sufficient sense of fairness, not to say courtesy, to similarly sign his name as a guarantee of good faith. In the present case I feel the matter especially strongly since I have now twice shown how the valuable space of our own JOURNAL has been misappropriated for the dissemination of injurious misrepresentations of our legal rights, and even for misquotation and misstatement of well-known legal maxims. While welcoming honest criticism, open discussion, and elucidation of this important subject, especially by well-known lawyers, it seems to me an intolerable condition of things in our Association if nameless outsiders are to be allowed to thus freely and irresponsibly use our JOURNAL for publication of articles the only purport of which is the depreciation of our public rights as members and practitioners of a profession the name and interests of which already unscrupulous individuals of the general public take every opportunity to defame and encroach upon.—I am, etc.,

Cavendish Square, W., Dec. 31st, 1898. VICTOR HORSLEY.

⁂ We have allowed Mr. Horsley to state his views in full, not only on account of their importance as coming from a direct representative of the profession on the General Medical Council, but on the general ground that it is essential for the sake of the cause which we, as well as Mr. Horsley, advocate that the meaning and scope of the existing law relative to medical practice should be made as clear as possible. This can be done only by the freest discussion of the question from every point of view.

THE SEAMEN'S HOSPITAL SOCIETY AND ITS VISITING STAFF.

SIR,—Dr. Manson's impressions as to his position on the staff of the Seamen's Hospital Society, as set forth in his letter in the BRITISH MEDICAL JOURNAL of December 31st, 1898, are so mistaken, that we are again obliged to draw his attention to the written records on this subject.

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[1] BRITISH MEDICAL JOURNAL, December 24th, 1898.

On April 9th, 16th, and 23rd, 1892, advertisements appeared in the medical press (*Lancet* and BRITISH MEDICAL JOURNAL) for a visiting physician to the Seamen's Hospital Society's Branch Hospital, Victoria and Albert Docks.

Dr. Manson was a candidate for this post. He was selected on May 4th by a Subcommittee, of which we were members, and duly elected on May 13th to the appointment he sought. Reference to the minute book, to which we referred him, clearly shows this.

It was some considerable time after Dr. Manson was appointed to the Branch Hospital that the physicians of the Dreadnought, as an act of courtesy to him, allowed him the use of six beds in their wards for cases that had been under his care at the Branch. They both lent him three beds, little supposing that this concession would lead him to assume the title of Physician to the Seamen's Hospital, Greenwich.

The annexed letter from us to Dr. Manson (January 21st, 1896) clearly put before him his real position, yet after his apology (copy of which is enclosed), he now writes, "at the time of the correspondence referred to I did consider, as I still consider, that I had a perfect right—in fact, as much right as either Dr. Curnow or Dr. Anderson had—to designate myself Physician to the Seamen's Hospital, Greenwich."

The profession must judge whether it is "in conformity with medical custom" for a physician elected to one hospital to describe himself as physician to another, and whether the officers of the latter have not cause for remonstrance if such is repeatedly done.—We are, etc.,

JOHN CURNOW.
JOHN ANDERSON.
January 3rd. G. R. TURNER.

Dreadnought Seamen's Hospital, Greenwich,
January 21st, 1896.

DEAR DR. MANSON,—With reference to your letter to Mr. Michelli of December 18th last, a copy of which has been sent to one of us, and which we should have replied to sooner but for the Christmas holidays, we wish to draw your attention to the terms of your appointment as shown in the Minute Book of the Seamen's Hospital Society.

On May 4th, 1892, a Subcommittee met to recommend a Physician to the Branch Seamen's Hospital at the Royal Victoria and Albert Docks, and an Ophthalmic Surgeon to the Seamen's Hospital Society.

In the same Minute Book, May 13th, 1892, page 138, it is noted that you were elected to the office of Physician to the said Branch Hospital, and Mr. Gunn Ophthalmic Surgeon to the Seamen's Hospital Society.

We also wish to call your attention to the 74th Official Report of the Seamen's Hospital Society (copy enclosed), in which you are styled "Physician to the Royal Victoria and Albert Docks Hospital," and to the official note paper, in which a distinction is clearly drawn between the Dreadnought Seamen's Hospital, Greenwich (235 beds), and the Branch Seamen's Hospital, Royal Victoria and Albert Docks (18 beds).

It appears clear to us from the foregoing that you should not allow yourself to be described as "Physician to the Seamen's Hospital, Greenwich," as has lately been done in the list of contributors to Davidson's *Hygiene and Diseases of Warm Climates*, the BRITISH MEDICAL JOURNAL, *Kelly's London Medical Directory, 1895*, and *Churchill's Medical Directory, 1896*.

If there is still any misunderstanding we shall be happy to meet you and discuss the matter.

We are forwarding a copy of this letter to Mr. Michelli.—We remain, yours faithfully,

(Signed) JOHN CURNOW, } Visiting Physicians.
JOHN ANDERSON, }
G. R. TURNER, Visiting Surgeon.

[Copy of a letter from Dr. Manson.]

21, Queen Anne Street, Cavendish Square,
February 4th, 1896.

DEAR MR. JOHNSON SMITH,—Many thanks for your very courteous letter. Your interpretation of mine to Mr. Michelli is correct. Therein I explained how I came to call, and allow myself to be called, "Physician to the Seamen's Hospital, Greenwich," a mistake I shall be careful to avoid in future. Please accept and convey my apologies to the medical staff.—Yours very truly, (Signed) PATRICK MANSON.

SYPHILIS IN THE ARMY.

SIR,—In the BRITISH MEDICAL JOURNAL of December 17th, 1898, I notice a letter by Brigade-Surgeon-Lieutenant-Colonel Myers on the above subject, in which he suggests the inunction of mercury as "especially applicable in army hospitals." With reference to this, I would draw his attention to a paper on the subject by Surgeon-Captain Lambkin in the Army Medical Report for 1891, in which that officer states that having proceeded to Aix, and there having got a thorough knowledge of the treatment of syphilis by mercurial inunction he began to use it in all his syphilitic cases, but was obliged to give it up for various reasons which he mentions and which appear sound.

In the same paper Lambkin advocates the treatment of syphilis by intramuscular injections of mercury as being the only method at our disposal whereby the soldier can be treated out of hospital over a lengthened period, and according to this officer this method can be carried out with the greatest ease in the army, and from further papers on the subject it appears to have been a great success.

I would like to ask Brigade-Surgeon-Lieutenant-Colonel Myers how he would propose to carry out inunction in a soldier for a period extending over, say, a year, not at all too long a time to continue treatment if we aim at the cure of the disease?—I am, etc.,

ROBERT F. CAMPBELL, M.B.Aberd.

Cosham, Hants, Dec. 20th, 1898.

SIR,—In the BRITISH MEDICAL JOURNAL of December 17th I notice a letter from Surgeon-Lieutenant-Colonel Myers, suggesting the inunction of mercury as a treatment for syphilis in the army.

From the letter referred to I gather that Surgeon-Lieutenant-Colonel Myers does not hold a very high opinion of the army medical officer as regards his knowledge of syphilis and its treatment. All the same, I would tell him that the suggestion he makes about the inunction method is nothing new to army medical officers, who have known of it and practised it for years back (or, indeed, to any medical man), and it has always been held in their estimation as one of the most valuable modes of dealing with syphilis as long as a man is in hospital and it can be thoroughly carried out.

For further information on the subject of inunction of mercury, I would refer Surgeon-Lieutenant-Colonel Myers to a paper on the subject in the *Army Medical Report* for 1891.—I am, etc.,

F. J. LAMBKIN,
January 3rd. Major, Royal Army Medical Corps.

CLINICAL INSTRUCTION IN MIDWIFERY AND GYNÆCOLOGY.

SIR,—In a paper entitled Is there Room for Improvement in Our Present Mode of Clinical Instruction in Midwifery? which I read before the Glasgow Obstetrical and Gynæcological Society in May of last year, and which was published in the September number of the *Glasgow Medical Journal*, I appended a table, the result of an examination of the annual reports of the Registrar-General for Scotland from the year 1855 up to 1895, showing the maternal mortality due to puerperal fever and other diseases incidental to childbirth during these years. This table brings out the discreditable fact that childbirth mortality has increased slightly during each decade. In the first decade it was 1 in 206, in the second 1 in 202, in the third 1 in 192, and in the last 1 in 188.5. It may be argued, and justifiably so, that the figures in the Registrar-General's reports are not quite accurate; but even admitting this, it must be granted that, considering the strides which have been made of late years in our knowledge of parturition and its management, childbirth mortality in Scotland has not diminished as it ought to have done. The same fact has been proved in regard to England.

In the same paper I go on to state: "But high though the mortality incidental to childbirth is, it bears no comparison with the morbidity. Last year in my wards in the Glasgow Samaritan Hospital for Women nearly 60 per cent. of the patients who had borne children were suffering from various traumatic and septic sequelæ of parturition. Most of them were admitted for the express purpose of being treated for these lesions; some of them required treatment for other conditions, such as ovarian tumour, uterine fibromyoma, etc. Having considered these cases carefully, I feel certain that in many of them the complication could have been prevented had proper care been taken at the confinement by the medical man or midwife in attendance. Now these are serious allegations to make. It is only because I am firmly convinced of the truth of them that I venture to put them before you. Should you agree with me, must it not be our duty to trace the reason for the errors which are committed, and do our best to remedy them? Does the fault lie altogether with the medical practitioners and midwives, or can it be that it lies with the teachers of midwifery, with the directors of our lying-in institutions, with the General Medical Council?

"But even apart from the grave risks to mother and child involved, a thorough knowledge of the subject is necessary to the student, for the simple reason that almost all his future work will be divided between medicine and obstetrics. A knowledge of general surgery and of the specialities will in comparison be required very seldom. Not only so, but a medical man's knowledge of midwifery must be capable of being applied at a moment's notice. Unforeseen complications are of frequent occurrence, and often there is no time to bring in a consultant, or even to sit down to think."

In the able address delivered by Professor A. R. Simpson, at the Edinburgh meeting last year, the latter arguments were discussed in detail, and I was glad to find that we were in entire agreement, not only as to the importance of a thorough knowledge of midwifery in general practice, but also as to the great inadequacy of the present requirements respecting clinical instruction in this subject. In the Calendars of Glasgow and Edinburgh Universities the regulation runs as follows: "The candidate must have attended, under the superintendence of a registered medical practitioner, twelve cases of labour, or such additional number as the Senatus, with the sanction of the University Court, may from time to time determine, or have attended for three months the practice of a lying-in hospital, or of the maternity department of a general hospital or other public institution, and have conducted personally six or such additional cases of labour as the Senatus, with the sanction of the University Court, may from time to time determine." The framers of this regulation were evidently of the opinion that midwifery does not stand in the same category as medicine and surgery. Clinical courses on the latter subjects must be attended daily during three winter and three summer sessions, and must be held in recognised hospitals, while the instruction must be given at the bedside by competent teachers.

Nothing of the sort is evidently necessary in the case of midwifery. I suppose the student is expected to pick it up by intuition. Is this fair to the student, or—and this is of even greater importance—is it fair to the public?

As the lives and health of the women in this country are at stake, it is surely incumbent on the General Medical Council to amend the regulation in question. Bedside instruction by recognised teachers in lying-in institutions ought to be enforced, and, as a corollary to this, the clause relating to the attendance on cases under the superintendence of a registered medical practitioner ought to be deleted. No objection could be raised to students attending extra cases in the latter way, but seeing that general practitioners, who are not in constant touch with hospital work, are prone to lag behind the times, surely such attendance ought not to be reckoned as equivalent to instruction in recognised clinics. What would be thought of the man who nowadays would propose a similar alternative with regard to clinical medicine? Yet wherein lies the difference?

The subject of a clinical examination in midwifery is more difficult to deal with. It is obviously impossible to hold one at the usual final professional examination, but, as it is well known that a compulsory course not followed by a compulsory examination is attended by the average student only for the sake of the ticket, and not for the instruction to be obtained, it ought to be the duty of the General Medical Council to devise some means by which an examination can be held. During the discussion which followed the reading of my paper, one of the speakers made a suggestion which deserves consideration. This was that each student should be examined towards the end of his course on clinical midwifery by the obstetrician of the hospital, and, if he succeed in passing, should receive a certificate that he has done so.

So far I have said nothing of clinical gynæcology. Matters here are even worse than with midwifery. Neither clinical instruction nor clinical examination is made compulsory by the General Medical Council. The conclusion naturally drawn by the student is that a knowledge of it is scarcely at all necessary in practice. That this is far from being the truth any general practitioner with a knowledge of gynæcology can testify. Indeed, I think I should not be far wrong were I to say that, as regards frequency of occurrence in general practice, the diseases peculiar to women stand easily first of the various specialities. Yet the majority of practitioners know little or nothing of the subject, and the consequence is that hundreds of women lead the lives of chronic invalids who might otherwise be relieved, and hundreds more lose their lives simply because the diseases which have carried them off have not been recognised in time. No doubt the patients themselves are often at fault, but we cannot always, unfortunately, acquit the doctor. And yet is it really the doctor who is altogether to blame? Ought not at least a large share of the responsibility rest on the shoulders of those who are responsible for his teaching?

Some day, then, changes will require to be made in the regulations regarding midwifery and gynæcology. Cannot that day come soon?—I am, etc.,

Glasgow. JOHN EDGAR.
Professor of Midwifery and Gynæcology, Anderson's College.

IRISH DISPENSARY DOCTORS.

SIR,—I would like to inform Dr. French that the Irish Poor-law system was modelled from the English, and differs from it only in detail. An English parish doctor is called upon to attend anybody who can obtain a ticket; I have myself received a ticket for a man in receipt of 30s. per week, although I must say nine-tenths of my parish patients are in receipt of out-door relief.

The object of my "criticisms" was to show from the Irish dispensary doctors' own figures as supplied to the Local Government Board that they are not as universally overworked as is represented, and that the remedies suggested are not the best for those who have a real grievance. Dr. French and others suggest that competitive examinations for candidates, promotion when appointed, and tickets only to be issued by relieving officers, should be introduced.

Now, Sir, at this moment, when local government is being extended in Ireland, is not the time to take the appointment and promotion of the most important officers out of the hand of the guardians. The relieving officer is a servant who must issue tickets to anybody. The guardians may direct him to do so. Dr. French mentions that guardians have issued tickets for themselves. I should think that was on account of the rating qualification a guardian had to possess—a very uncommon occurrence. I believe that unless the profession in Ireland co-operates with guardians, now under the new Act all rating qualifications are abolished, the whole Board in some districts may become State patients, and thus establish a very irksome form of socialism. Increase of salary alone would not prevent this.

Lord Beaconsfield said, If you want to govern a people, you must pander to their passions. The Irish ratepayer is compelled to maintain the anomaly of two State hospitals (Poor-law and county infirmaries) in what is often a very small town, consequently cannot be blamed for making use of them. I may perhaps mention in passing that the fees paid in Ireland to medical witnesses at assizes are higher than in this country.

I have been a *locum tenens* during the prevalence of influenza in a poor dispensary district, and have had personal experience of the working of them. I have already trespassed too much on your space, and must leave this subject to more able hands than mine.—I am, etc.,

Moseley, near Manchester, Jan. 2nd. R. H. DREAPER.

THE LIVERPOOL PATHOLOGICAL DIAGNOSIS SOCIETY.

SIR,—Dr. Gordon Sharp seems to think that the opinion of the pathologist is of no value to the patient. Surely, Sir, to take an example, it is of the highest importance to the patient to know whether or no he is suffering from consumption, and the patient ought to pay for the opinion of a pathologist just as he would pay for that of a physician or surgeon. Again, what does Dr. Gordon Sharp mean by the following statement?

> The surgeon who is in the position to receive a large fee is oftener than not attached to a school or hospital where he can get his specimens examined for nothing, the different departments rendering services to each other.

Does he mean that a surgeon attached to a hospital will meet a medical colleague in consultation over a private case without taking any fee? I should not think that there are many surgeons who would do this, and if surgeons will not why should pathologists?

I quite agree with Dr. Hawkins-Ambler that the State should encourage research. Neither of your correspondents seem to have quite grasped the grounds of my objection.

I do not object to diagnosis societies as such, but I do object to the absence of a restriction limiting the use of such societies to those cases where the patient cannot afford the proper fee, and I also object to the contract system.—I am, etc.,

Leeds, Dec. 26th, 1898. CHARLES POWELL WHITE.

THE VALUE OF VENESECTION.

SIR,—Under the above head Mr. Phillips of Haverfordwest refers to my case of puerperal eclampsia. He thinks that the result might have been different had I employed venesection, and he records two cases in support of his contention. I would point out that both his cases were *ante partum*. In my case there was considerable hæmorrhage after delivery. I have also been taught that the condition points rather to an anæmic condition of the brain.

I have employed venesection in two cases of acute bronchitis with gratifying results, where the right heart had become so overfull that it must have failed. The relief was almost immediate.—I am, etc.,

Faringdon, Dec. 26th, 1898. H. DARWIN HEY.

SUPERANNUATION OF POOR-LAW OFFICERS.

SIR,—It is generally felt that the Poor-law Officers Superannuation Act will before long require some further amendment, and I think that the principle of the Act having already been granted, further improvement will be easily obtained.

The contracting-out clause was a mistake, and no Poor-law officer should be allowed to remain out of the provisions of the Act. Guardians now advertise that successful candidates will be required to join the fund, thus at once disqualifying those applicants who did not in the first instance join it. Great care is taken in the Bill that all new officers shall come under its provisions, but this inequality should be removed, and both old and new placed on equal terms.

The absence of a central fund presses hardly on those seeking appointments in other unions, and I hope shortly to see active steps taken to have it established.—I am, etc.,

January 2nd. POOR-LAW MEMBER.

ERYTHROL TETRANITRATE: A CAUTION.

SIR,—Some manufacturing chemists recently sent me by post a specimen labelled erythrol tetranitrate, a white powder in a small glass bottle. As there were no directions or dose printed on the bottle, I determined not to keep the specimen. It is always a difficulty to dispose satisfactorily of waste drugs. This time I, perhaps carelessly, put it in the waste-paper basket. Result, an explosion occurred next morning, and the cook was partially stunned and received about two dozen small wounds on the hands, arms, and face, three or four containing glass. The housemaid had emptied the waste-paper basket into the dustpan containing hot ashes.

So explosive a compound as erythrol tetranitrate should surely not be sent out without special precautions. Imagine the result of a fire or other accident at a post office when a few hundred of these specimens had been posted.

The dangers of this preparation have been described in the BRITISH MEDICAL JOURNAL, 1898, vol. i, p. 37, but the particular risk here referred to has not, I believe, been pointed out.—I am, etc.,

January 4th. S. D., M.D.

THE PREVENTION OF TUBERCULOSIS.

SIR,—According to your report of the meeting at Marlborough House, Sir William Broadbent stated that "the desirability of insisting on the disinfection of rooms in which consumptive persons had died" was to be urged on sanitary authorities. But the sanitary authorities in London have no power to insist on disinfection except in the dangerous infectious diseases specified in the Public Health (London) Act, 1891, of which phthisis is not one. Perhaps Sir W. Broadbent only meant by "insisting" moral persuasion. This has been tried in Plumstead for the past fourteen months, with the result that in only six cases out of seventy-five deaths have the friends agreed to the offer of disinfection.

Will the National Association for the Prevention of Consumption advocate that the Local Government Board or London County Council shall under Section LVI of the above Act make Section LX applicable to phthisis? If this were done disinfection could be insisted on without the disease being made notifiable. There seems no reason why this course should not be taken, and it seems unlikely that without it any large number of householders will agree to the inconvenience of disinfection.

It is disappointing to find that no active steps are going to be taken for the general elimination of bovine tuberculosis. If the tuberculin test is only applied voluntarily by those who can afford to sacrifice the reacting animals it seems likely that infantile tuberculosis may become somewhat rarer among the rich, but continue quite as prevalent among the poor.—I am, etc.,

SIDNEY DAVIES, M.A., M.D.Oxon.,
December 26th, 1898. Medical Officer of Health, Plumstead.

JENNERIAN LITERATURE.

SIR,—It has been suggested to me that the members of the medical profession might give valuable help in educating the public in the cause of vaccination by allowing samples of Jennerian literature to lie on the tables of their waiting rooms, where they might be seen by their patients and others. The Jenner Society will be happy to supply such literature to anyone who will apply for it.

I am glad to find, from communications I am increasingly receiving, that the members of the profession are beginning to take a much more active part than they have hitherto done in this good work by giving lectures and addresses on the subject, by correspondence in the public papers, and by joining in debates on it. I shall be happy to give any assistance in any direction to any who may desire it.—I am, etc.,

FRANCIS T. BOND, M.D.,
Gloucester, Jan. 3rd. Hon. Secretary Jenner Society.

⁂ Dr. Bond has sent us some specimens of the literature to which he refers. These include: (1) a pamphlet entitled *A Plea for the Children*, containing a photograph of a sister and brother, the one vaccinated and suffering from modified small-pox, the other unvaccinated and dying of confluent small-pox (reproduced from the BRITISH MEDICAL JOURNAL of June 3rd, 1893), as well as a reproduction of two pages of an old register of burials at Pudsey Chapel in 1787-1792 showing the prevalence of small-pox in the last century and the special ravages it made among children. (2) *The Argument for Vaccination*, giving fifteen reasons for the belief in the efficacy and safety of vaccination. (3) *What do we Mean by Vaccinated?* (4) *Small-pox and Vaccination*, a parish letter by the Rev. Jevon J. Muschamp Perry. (5) *Facts about Small-pox and Vaccination*, reprinted from the BRITISH MEDICAL JOURNAL of March 5th, 1898, together with a report of the Jenner Society and a list of its publications.

INSUSCEPTIBILITY TO VACCINIA.

SIR,—To the question raised by Dr. Shuter, "How far does vaccinia during pregnancy render the child insusceptible to to vaccination?" I am able to contribute one observation in reply. A lady was revaccinated during the ninth month of pregnancy, with a result approaching that of a primary vaccination. The child, when 6 months old, was vaccinated with calf lymph. The result—I must own contrary to my expectation—was perfectly typical vaccine vesicles running a perfectly normal course.—I am, etc.,

Carlisle, Jan. 2nd. STEWART LOCKIE.

DEEP WATERS.

SIR,—The whole subject raised by your correspondent in the BRITISH MEDICAL JOURNAL of December 31st, 1898, in his article upon the Water under London is of considerable importance, and there should be some amendment of the present law upon the question.

As far as the question concerns neighbouring water authorities, it was raised I believe in the House of Lords Committee on the Newark and Nottingham Water Bills two years ago, and some sort of a precedent established. In one Act at least opponents of a water company Act have had clauses inserted preventing the water company sinking any well within a considerable distance (a mile, I believe) of a certain spring, thus establishing a claim to property in underground water. I am uncertain whether the Great Western Railway Company was obliged to construct certain works of supply when certain parishes in Monmouthshire were drained by the Severn Tunnel Pumping Works.

Can you tell me where I can find a full report of the case, Ballard *v.* Tomlinson, quoted by your correspondent?—I am, etc.,

Leicester, Jan. 3rd. JOHN TUBB THOMAS, D.P.H.

OBITUARY.

JOSEPH TILLIE, M.D.EDIN., F.R.S.E.,

Springfontein, Orange Free State, S.A.; formerly University Lecturer on Experimental Pharmacology, and Senior Assistant to the Professor of Materia Medica and Therapeutics, University of Edinburgh.

WE regret to have to record the death, at the early age of 38 years, of Dr. Joseph Tillie, who passed away on November 28th, 1898, at East London, Cape Colony.

Edinburgh men, in many parts of the world, will regret to hear of this premature end to a once promising career.

Joseph Tillie was born and educated in Edinburgh. For some years he was an accountant in the Union Bank of Scotland, and during this time he attended several of the Arts classes in the University.

In 1882 he gave up his appointment at the Bank, and entered the University as a student of medicine. He soon gave evidence of marked ability, and won many honours and distinctions. Of these may be mentioned, besides numerous University class medals, a Grierson Bursary in 1885, the James Scott Scholarship in Midwifery in 1886, and a Vane Dunlop Scholarship in 1887. He graduated M.B., C.M., with First Class Honours in 1886.

On the day of his graduation he went into residence at the Royal Infirmary as House-Surgeon to Mr. Miller. He next became Resident-Surgeon to the Royal Maternity Hospital. In February, 1887, Dr. Tillie married Miss Jean Lamont Barclay. It is characteristic of his devotion to work that the House-Physicianship to Professor Fraser's wards in the Royal Infirmary having become unexpectedly vacant, and being offered to him just at this time, he at once accepted it, and went into residence at the Royal Infirmary for a second time within a few days of his marriage.

The following summer he went to Leipzig to work at pharmacology under Professor Boehm, and remained there for eighteen months. His chief work at Leipzig was an investigation into the pharmacology of curare and its alkaloids. This research established the fact that curare, in addition to its well-known paralysing action on motor nerve ends, has also a tetanising action similar to that of strychnine on the spinal cord itself. Tillie's aim in life now became determined, and until his health failed he continued to work steadily at pharmacology.

Returning to Edinburgh in 1888, he became University Assistant to Professor Fraser. In August, 1889, he received his M.D. degree, and was awarded a Gold Medal and the Gunning Christison Prize for his thesis on Curare. During the next six years he steadily pursued his work at the University, teaching for several hours daily, and diligently prosecuting original research. He was appointed Clinical Tutor to the Royal Infirmary and Physician to the Western Dispensary. In special recognition of his pharmacological work, the University instituted a Lectureship on Experimental Pharmacology, and appointed Tillie to the post.

The results of Dr. Tillie's work, so far as these have reached the stage of publication, have appeared chiefly in the *Journal of Anatomy and Physiology* and in the *Proceedings of the Royal Society*. To the former he contributed papers on Curare and its Alkaloids, Methyl Strychnium, Hæmoglobinuria in Blood Pressure Experiments, An Arrow Poison from New Granada and its Botanical Source, and a Variety of Curare Acting as a Muscle Poison. To the *Proceedings of the Royal Society* of London he contributed in conjunction with Professor Fraser two papers, one on the Arrow Poison of the Wa Nyika and other tribes of East Equatorial Africa and the other on Acokanthera Schimperi, its Natural History, Chemistry, and Pharmacology. In addition Dr. Tillie assisted Professor Fraser in his well-known study of serpent's venom, and he had several other researches in progress when his health failed.

Of good physique, and believing himself to be of perfectly sound constitution, Tillie never spared himself, took no holidays, and worked incessantly from early morning until late at night. Early in 1895 it was noticed that he was not looking well. His vitality had become lowered, and it is believed that he became infected by some tuberculous rabbits which he had under observation in the laboratory. In the early summer his illness took an acute form, active tuberculous mischief developed in the lungs, and he was obliged to relinquish his work, his University appointments, and—for the time being—his ambition.

In December, 1895, he left Edinburgh for South Africa, in the hope of conquering his disease, or—at all events—of being able to provide for his wife and family. For six months he lived an open-air life on a farm in the Orange Free State. Unfortunately, it was necesary for him to make an income, and in the autumn of 1896 he commenced practice at Springfontein. He soon had a considerable practice, which increased as his abilities became known. His successful treatment of a prominent personage in the State brought him a large consulting practice. He threw himself into this work with something of his old vigour and enthusiasm. But his health was never completely re-established. A friend who visited him in June last says that he was rarely a day free from fever, and yet he was hard at work, travelling hundreds of miles in a week, having scarcely time to satisfy the imperious demands of sleep. In July he had an attack of influenza, from which he never fully recovered. In October his wife took him to East London, in the hope of benefit from the sea air. But it was in vain. Repeated hæmorrhages, laryngeal ulceration, and constant vomiting, ended on November 28th in death from cardiac failure.

Dr. Tillie had a remarkable capacity for sustained work, considerable power of minute and accurate observations, and a sound and well-balanced judgment. His laboratory work has therefore a permanent value. But undoubtedly his mental powers found their highest development in the work of teaching. He was a born lecturer and demonstrator. He possessed the rare faculty of being able to realise the mental attitude of the student, and could therefore present his subject in its most clear and convincing form. To this gift of luminous exposition he added a contagious enthusiasm which was an inspiration to good work. Though he gave little time to recreation, he was of active habits and liked an occasional game of golf. He was a fair shot and a good horseman. He once managed to make a voyage to India during the long vacation. He lectured to the Edinburgh Health Society on the Abuse of so-called Patent Medicines. Another lecture of his, to a literary society in an English town, on Heredity and the Modern Novel proved his familiarity with recent biological theories and his extensive knowledge of modern fiction, both English and foreign.

Those who enjoyed the privilege of Dr. Tillie's friendship will consider no notice of his career complete without a reference to his innate kindness of heart and the unselfishness of his disposition. His knowledge and experience were ever at the disposal of his friends, to whom his wise counsel and ready help were frequently of invaluable service. In the words of one of his own teachers in Edinburgh, "he was a good man and true, and a great loss to science and humanity." Edinburgh men will long cherish his memory.

CHARLES EGERTON FITZGERALD, M.D.ST.AND.,

M.R.C.S.ENG., L.S.A.

WE regret to record the death of Dr. FitzGerald at his house, West Terrace, Folkestone, on Sunday, December 11th, 1898, from perityphlitis. He was born in London in 1830, and was consequently 68 years of age at his death. His father, who was a Captain, R.N., and was descended from a branch of the family of the Duke of Leinster, died when his son was only three years old. Dr. FitzGerald went to school at Brighton, was articled at the age of 15 to a medical man in Bicester, and received his professional training there and at St. Bartholomew's Hospital, London. He became M.R.C.S. in 1856, L.S.A. in 1857, and M.D.St. Andrews in 1862. He was justly proud of the fact that from the age of 15 onwards he was in no way dependent on his mother. In June, 1856, he went with

Lord Dufferin for a four months' cruise to Iceland, Jan Mayen Land, and Spitzbergen, as related in his lordship's popular work, *Letters from High Latitudes*.

In 1857 Dr. FitzGerald joined the late Mr. S. Eastes, at Folkestone, as partner; but the partnership was dissolved after about ten years by mutual agreement. He obtained an extensive and lucrative practice in the town, and exerted himself in various ways to bring Folkestone into its present prominence as a health resort. His energy showed itself in many directions. When the Volunteer forces sprang into existence in 1859 he joined them. He was at first in the ranks, but afterwards became Surgeon to the Folkestone Rifle Corps. He was one of the founders of the Folkestone Natural History and Microscopical Society, was its President for over twenty years, and its Honorary President at the time of his death. He was the *doyen* of the profession in the town, and had been President of the Folkestone Medical Society since its foundation in 1893. The Society at the meeting in his house in February last discussed the question of prevention of tuberculosis, he himself introducing the subject. This was at the beginning of the present national movement on behalf of the same object, and the hints which were then expressed have since been formulated and published in concise form as a tract, which is now in circulation. Dr. FitzGerald was a frequent contributor to the pages of the *Lancet*. He wrote on influenza, the "Koch treatment," bacteriology, and vivisection. He was also the author of *Semi-scientific Lectures*, being some of his addresses to the Natural History Society; on *Folkestone as a Health Resort*, many points of which are incorporated in the article on Folkestone in *The Climates and Baths of Great Britain*, vol. i. (Roy. Med. and Chir. Society's publication), and *Physiology and Hygiene for Home Nursing*, 1890. He was a member of the Council of the British Gynæcological Society and a Fellow of the Obstetrical Society of London.

He was altogether an original thinker, and the walls of his house bear witness to his skill in oil colours. He was also a good musician and a keen photographer more than 40 years ago. It is not surprising, therefore, that he attracted to himself a wide circle of friends, and that he will be greatly missed by all classes in Folkestone. His fellow-townsmen placed his portrait in the Town Hall some two years ago. Though through failing health he has not for the last four or five years taken quite the same prominent position in the borough as previously, yet up to the last he was always ready to take the lead in any medical question affecting the welfare of the town. He married Miss Hele, of South Devon, in 1858. And this lady, a daughter, and three sons, one of whom, Mr. Desmond FitzGerald, has worked in the practice for some years, survive him.

The interment took place at Folkestone Cemetery on December 14th, the first portion of the burial service being conducted at Christ Church, Folkestone, by the Rev. H. L. Richmond Deck (Vicar), and the Rev. J. Stonehouse. There was a large congregation, amongst those present being nearly all the local members of the profession. The wreaths around the coffin numbered over 80.

We regret to record the death of Dr. John Allen Osborne, J.P., at his home, Milford, co. Donegal. He was born at Groarty in 1832; was educated at the Universities of Glasgow and Edinburgh, and graduated M.D. in 1855. He subsequently travelled in America, then held the appointment of Medical Officer in the French Marine Service, and finally settled in Milford in 1858, where he obtained the post of Medical Officer in the Dispensary, which he held until recent years, when increasing infirmities compelled him to resign it. He had a wide range of knowledge and attainments, was an excellent classical scholar, and knew German, French, Italian, and Spanish. In 1896 he published *The Vision and Other Poems*. He also on different occasions contributed to *Science Gossip*, *Knowledge*, and other scientific papers. He was a good botanist and enthusiastic student of natural history, and had made a large collection of beetles, moths, and butterflies. Altogether he was a highly cultured man, but of so retiring a disposition that only those who knew him intimately could be fully aware of his great qualities of heart and head. The cause of his death was aneurysm of the aorta. His funeral was very largely attended, and the constabulary of the district carried the coffin to the graveyard as a mark of respect for their former medical officer. In the house the service was conducted by the Rev. W. J. Young; at the grave by the Rev. Dr. Rodgers, one of Dr. Osborne's oldest friends, who referred most feelingly to their long intimacy; and the service was concluded by the Rev. G. Moody.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are: Dr. A. Laboulbène, Professor of the History of Medicine in the University of Paris, aged 73; Dr. L. Bauer, of St. Louis, one of the pioneers of orthopædic surgery in the United States, and sometime Dean of the St. Louis College of Physicians and Surgeons, aged 84; Dr. Oscar Bulhoes, Professor of Clinical Surgery in the Medical Faculty of Rio de Janeiro; Dr. W. Narkiewicz-Iodko, sometime Professor of Ophthalmology in the Medical Faculty of Warsaw; Dr. Gluge, Emeritus Professor of Physiology in the University of Brussels, aged 86; Dr. C. Eloy, of Paris, Editor of the *Journal des Praticiens*, aged 50; Dr. Hubert Boëns, of Brussels, Corresponding Member of the Belgian Academy of Medicine, Editor of *Le Médecin*, author of several polemical works on Louise Lateau, the *stigmatisée* of Bois d'Haine, etc., and President of the International Antivaccination League, aged 73; and Dr. H. Lotar, Professor of Pharmacy in the University of Lille, aged 62.

ROYAL NAVY AND ARMY MILITARY SERVICES.

ROYAL NAVY MEDICAL SERVICE.

Staff-Surgeon Samuel W. Vasey has been promoted to be Fleet-Surgeon December 19th, 1898. He was appointed Surgeon June 4th, 1878, and Staff-Surgeon June 4th, 1890. He landed with the Naval Brigade of the *Boadicea* during the Zulu war in 1879, receiving the South African medal with clasp, and was present at the destruction of Batorrga, on the West Coast of Africa, in 1880. During the Egyptian war of 1882 he was Surgeon of the *Seagull*, and has the medal and Khedive's bronze star for that campaign.

The following appointments have been made at the Admiraly: R. L. **Dickinson**, Surgeon, to the *Majestic*, January 5th; **Graham E. Kennedy**, Staff-Surgeon to the *Liffey*, December 29th; **Edward J. Morley**, Staff-Surgeon to the *President*, for R.N. Rendezvous and Medical Depôt, December 29th; **Charles W. Sharples**, Staff-Surgeon to the *Australia*, temporary, December 29th; **Vidal G. Thorpe**, Staff-Surgeon to the *Furious*, temporary, December 29th, 1898.

INDIAN MEDICAL SERVICE.

The promotion Lieutenant-Colonel W. **McConaghey**, M.D., Bombay Establishment to be Colonel, which has been already announced in the British Medical Journal, has received the approval of the Queen.

Her Majesty has also sanctioned the retirement from the service of Lieutenant-Colonel F. H. **Blenkinsop**, Madras Establishment, dated December 29th, Brigade-Surgeon-Lieutenant-Colonel F. A. **Smyth**, Bengal Establishment, July 27th, and Lieutenant-Colonel P. J. **Damania**, Bombay Establishment, October 28th, 1898. The war services of these officers are as follow: Lieutenant-Colonel Blenkinsop: Burmese Expedition, 1885-7 (medal with clasp); Lieutenant-Colonel Smyth: Burmese Expedition, 1886-7 (medal with two clasps); Lieutenant-Colonel Damania: Afghan war, 1880 (medal), and Burmese Expedition, 1885-7 (medal with clasp).

Twenty-two medical officers are to be admitted to the Indian Medical Service at the examination to be held in February next.

Surgeon-General **Lewis Stanhope Bruce**, late Bombay army, died at Ealing on January 2nd. He entered the service as Assistant Surgeon, May 6th, 1854, became Deputy-Surgeon-General, September 15th, 1882, and retired with the honorary rank of Surgeon-General, September 15th, 1887. He was with the Persian Expeditionary Force in 1856-7, including the landing at Hallilah Bey, the surrender of Bushire, the expedition to Borazjoon, and the attack of Khooshab (medal with clasp); in the Indian Mutiny campaign in 1858, including the pursuit of Tantia Topee (medal); and in the Afghan war in 1880, when he took part in the march to Kandahar with the force under Major-General Phayre (medal).

THE VOLUNTEERS.

Mr. Edward Oliphant, M.B., is appointed Surgeon-Lieutenant in the 4th (Deeside Highland) Volunteer Battalion the Gordon Highlanders, January 4th.

VOLUNTEER MEDICAL STAFF CORPS.

Captain Lewis Way, Royal Army Medical Corps, is appointed Adjutant, *vice* Captain G. T. **Rawnsley**, whose period of service has expired, December 19th, 1898.

NEW ZEALAND VOLUNTEERS.

Surgeon-Captain B. Locking has been appointed Medical Officer to the 3rd Battalion Wellington (East Coast) Volunteer Rifles, with present rank.

THE ARMY MEDICAL SCHOOL, NETLEY.

The condition under which the two classes of candidates at present going through the course of instruction at the Army Medical School are serving is deserving of notice. The two classes are: 1. Those who have passed into the service by competition. 2. The young men nominated by the medical schools and accepted by the War Secretary. The first only get their commissions after the course at Netley is completed, and have already been put to the expense of special preparation before going up for the competitive examination. The second get their commissions as lieutenants on full pay from the date of joining at Netley, and thus become senior to the "competitive" candidates—a somewhat inequitable arrangement seemingly. The places amongst the two sets are settled by an examination at the end of the Netley course.

THE BATTLE OF GEDARIF.

In the note on the despatch from Lord Kitchener reporting the operations in the Soudan subsequent to the defeat of the Khalifa at Omdurman, the name of Lieutenant-Colonel N Leader, late Royal Army Medical Corps, was accidentally omitted from the list of officers brought to the notice of the Secretary of State for War by Lord Kitchener as having distinguished themselves during the recent operations in the Soudan.

THE MEDICAL SERVICE IN THE TIRAH CAMPAIGN.

The most recent tribute to the admirable services rendered by the Medical Department is contained in *The Campaign in Tirah, 1897-98*, by Colonel H. W. Hutchinson, Director of Military Education in India, who was the *Times* Special Correspondent during the war. Colonel Hutchinson speaks of the great military medical services, which, amidst the clash of arms, the hum of camp, the commotion of marches, the turmoil of retreats, and, as one reviewer of the work adds, even in the calm reflectiveness of a concluded campaign, are apt to receive scant notice. The work of the Medical Department during the campaign is fairly dealt with by Colonel Hutchinson.

THE VICTORIA CROSS.

Fairplay writes: All are delighted to see the bestowal of the Victoria Cross on Surgeon Maillard, R.N., for great bravery at Candia on September 6th; it shows that the Admiralty have no scruples in giving that coveted distinction to a medical officer. But, if rumours are true, it is now different at the War Office, where, it is alleged, the bestowal of the Cross on army medical officers is in future to be discouraged. At the same place and on the same date, as reported, Lieutenant Clarke, Royal Army Medical Corps, assisted by some non-commissioned officers of his own corps, and of the Army Service Corps, performed a gallant act similar to that of his naval brother, by succouring a wounded soldier under a very heavy fire; yet there has been no official mention or notice of Clarke's devotion. Can there be any truth in the rumour above alluded to?

MEDICO-LEGAL.

QUALIFICATION OF M.R.C.S.

B. asks us if anyone can practise on the qualification of M.R.C.S. alone and, if so, prior to what date must that qualification have been obtained?

⁂ Any person whose name appears on the *Medical Register* is entitled to practise. The M.R.C.S. alone, obtained since July 1st, 1887, does not qualify for registration on the *Medical Register*.

COTTAGE HOSPITALS AND THE CORONERS ACT.

J. C. McC. writes enclosing the annual report of a cottage hospital, which report contains the details of a scheme of the Charity Commissioners for the regulation of the hospital. Our correspondent points out that under this scheme admissions to the hospital can only be obtained by means of a recommendation from a governor, and on the certificate of a medical officer that the case is a proper one for the hospital, and on the further condition that the patient pays or has paid for him a weekly sum towards his maintenance. Our correspondent asks whether, this being the case, we are of opinion that this is a public hospital supported by voluntary contributions under the Coroners Act.

⁂ We can quite understand that our correspondent should have felt some difficulty in this matter, since Section XXII of the Coroners Act, to which we understand that he refers, does not define at all clearly the institutions to which it is intended to apply. We are advised, however, that the hospital in question, which appears to be almost entirely supported by voluntary subscriptions and donations, and is in more than one place pointedly referred to in the report as a public institution, would be held to be a public hospital within the meaning of the Section we have mentioned. We do not think that the regulations as to admittance quoted by our correspondent justify an opposite conclusion.

CIRCULAR TO PATIENTS.

"London and Manchester," who has just severed his connection as medical officer with an insurance society, asks whether there would be any harm or anything unprofessional in sending a copy of the following notice to all the society's patients on his list on behalf of himself and his partner, namely:

Dear Sir, or Madam,—We beg to inform you that on and after ——— we shall cease to attend patients in connection with the ——— ——— Company. We shall be pleased to attend you or any members of your family as private patients. We have also decided as follows:

1. To attend persons over the age of 7 years (whom we consider suitable) under the rules of the ——— ——— Society. Particulars of the Society may be obtained from us or the local Secretary, Mr. ———. This Society provides for sick pay, doctor's fees, funeral fund, and old-age pension.
2. For children between the ages of 1 year and 7 years (whom we consider suitable) we shall endeavour to establish a club, the subscription to which will be at least 6d. per month.
3. We will in no case attend such children at club rates without medical examination by us before joining.
4. We will in no case attend children under 1 year at club rates.

Yours faithfully,

———

⁂ We are of opinion that the circulation of such a notice as is above set out would be contrary to the best usages of the medical profession, and would probably involve the writer in very unpleasant if not serious consequences.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 5,467 births and 4,105 deaths were registered during the week ending Saturday last, December 31st. The annual rate of mortality in these towns, which had been 16.6 and 17.8 per 1,000 in the two preceding weeks, further rose to 19.1 last week. The rates in the several towns ranged from 12.6 in Croydon, 13.7 in Huddersfield, 14.1 in Cardiff, and 14.6 in Halifax to 23.5 in Blackburn, 23.6 in Oldham, 24.3 in Wolverhampton, and 24.6 in Gateshead. In the thirty-two provincial towns the mean death-rate was 19.5 per 1,000, and exceeded by 1.1 the rate recorded in London, which was 18.4 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.9 per 1,000; in London the rate was equal to 1.8 per 1,000, while it averaged 2.0 in the thirty-two provincial towns, among which the highest zymotic death-rates were 2.9 in Manchester, 3.0 in Wolverhampton and in Gateshead, 4.0 in Nottingham, and 6.1 in Swansea. Measles caused a death-rate of 1.2 in Salford, 1.5 in Swansea, 1.8 in Manchester, and 2.6 in Nottingham; whooping-cough of 1.1 in Oldham and 1.3 in Preston; and "fever" of 1.0 in Derby and in Gateshead, and 1.3 in Bolton. The mortality from scarlet fever showed no marked excess in any of the large towns. The 106 deaths from diphtheria in the thirty-three towns included 47 in London, 8 in West Ham, 7 in Sheffield, 6 in Birmingham, 5 in Swansea, 5 in Liverpool, 4 in Leicester, and 4 in Leeds. No fatal case of small-pox was registered during the week under notice either in London or in any of the thirty-two large provincial towns, and no small-pox patients were under treatment in any of the Metropolitan Asylum Hospitals. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had declined from 3,259 to 2,901 at the end of the six preceding weeks, had risen again to 2,939 on Saturday last, December 31st; 225 new cases were admitted during the week, against 276, 260, and 264 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, December 31st, 952 births and 548 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had declined from 21.0 to 18.2 per 1,000 in the three preceding weeks, was again 18.2 last week, and was 0.9 per 1,000 below the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 12.4 in Paisley and 17.4 in Dundee to 21.3 in Greenock and 22.1 in Perth. The zymotic death-rate in these towns averaged 1.9 per 1,000, the highest rates being recorded in Aberdeen and Greenock. The 247 deaths registered in Glasgow included 6 from measles, 6 from scarlet fever, 7 from whooping-cough, and 5 from "fever." Four fatal cases of measles, 3 of whooping-cough, and 2 of "fever" were recorded in Edinburgh.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF EDINBURGH.

Annual Report: Statistics of Students and Graduates.—During the year just ended the total number of matriculated students was 2,813, including 211 women. Of this number 147, including 5 women, were enrolled in the Faculty of Science; 1,387, including 6 women, in the Faculty of Medicine. Of the students of medicine 584, or over 42 per cent., belonged to Scotland; 374, or nearly 27 per cent., were from England and Wales; 94 from Ireland, 60 from India, 231, or fully 16.5 per cent. from British Colonies; and 44 from foreign countries. The number of women attending extra-academical lectures with a view to graduation in Medicine was 89. During the year the degree of Bachelor of Science (B.Sc.) was conferred on 25 candidates, the degree of Doctor of Science (D.Sc.) on 6, Bachelor of Medicine and Master in Surgery (M.B., C.M.) on 60, including 2 women; Bachelor of Medicine and Bachelor of Surgery (M.B., Ch.B.) on 138, including 6 women; Doctor of Medicine (M.D.) on 73, including 1 woman. The General Council of the University now numbers 8,509.

Honorary Degrees.—There were no fewer than 29 recipients of the honorary degree of LL.D. during the year. This large number was accounted for by the visit of the British Medical Association to Edinburgh in the month of July, when the Senatus Academicus availed themselves of the opportunity thus afforded of conferring the degree on a number of distinguished British and foreign guests, representatives of medicine and surgery. Among the other honorary graduates was Lord Kitchener of Khartoum, who received the degree at a special graduation ceremonial in November last.

Fellowships and Prizes.—The total annual value of the University fellowships, scholarships, bursaries, and prizes now amounts to about £17,790. Of this sum £3,500 belongs to the Faculty of Medicine, and £1,500 to the Faculty of Science. In addition to these sums upwards of £600, being the income of the Earl of Moray Endowment Fund, is annually available for the encouragement of original research. The great majority of the University bursaries, etc., are awarded by the Senatus after competitive examination. It is expected that a lectureship in tropical diseases will shortly be founded by the University Court under powers conferred by ordinance.

UNIVERSITIES COMMISSION.—The Universities (Scotland) Commission have now completed their work, and recently a number of their ordinances have received the approval of the Queen in Council.

BENEFACTIONS.—Among the numerous benefactions of the year was the sum of £10,000 for library purposes; £1,000 by Sir William Overend Priestley, M.D., M.P., for the purpose of redecorating the Library Hall; a bequest by the late Hon. Bouverie F. Primrose, C.B., Edinburgh, of £100 for the encouragement of original research, and £100 for library purposes; a legacy of £1,500 by the late Mrs. Jane Allan for the purpose of founding a competitive Fellowship in the Faculty of Medicine; gifts of various portraits and zoological and geological specimens. A very generous benefaction has also been intimated by Mr. John Usher, of Norton, who has undertaken to provide for the building and equipment of a laboratory and class rooms in connection with the Chair of Public Health, lately founded largely through his own munificence, to be called "The John Usher Institute of Public Health."

LIBRARY.—While the University Library has not during the year received any great individual bequest, it has had no inconsiderable accessions from a large number of friends.

APPOINTMENTS.—Dr. Charles Hunter Stewart has been appointed the first occupant of the Bruce and John Usher Chair of Public Health. Dr. D. A. Welsh has been appointed Lecturer on Pathological Bacteriology, and Dr. T. H. Milroy as the first Lecturer on Physiological Chemistry.

RESIGNATION.—Lastly, Chapman has retired from the office of Janitor after thirty-three years' service.

UNIVERSITY OF LONDON.

B.S. EXAMINATION FOR HONOURS.—The following candidates have passed their Examinations in the subject undernoted:

Surgery.—First Class: J. P. Maxwell (Gold Medal), St. Bartholomew's Hospital. Second Class: T. V. Cunliffe, Owens College and Manchester Royal Infirmary; D. J. Munro, Guy's Hospital. Third Class: Winifred Secretan Patch, B.Sc., Royal Free Hospital and London School of Medicine.

INDIA AND THE COLONIES.

LEEWARD ISLANDS[1]

THE sanitary report of the city of St. John, Leeward Islands, for the years 1896 and 1897 has just been issued. The sanitary condition of the city is reported to be very good, and the state of the public health satisfactory. The water supply is chiefly from a reservoir on the hill, and is of good wholesome quality; but in addition there are several private cisterns which are filled with rainwater gathered from the roofs of houses, and in most cases very unwholesome. There are also a number of underground wells, and in consequence of the danger of contamination of the water in them with sewage matter, and the risk of epidemics of waterborne diseases, the Board of Health has attempted to close them, but without success hitherto. The temperature is highest from April to December, and the dew point on the whole corresponds to the temperature. The most unhealthy months for pulmonary and gastro-intestinal diseases and bilious remittent fevers are the rainy and hot months from April to November; typhoid may prevail at any time, while simple malarial fevers occur all the year round, but appear to be more prevalent during the increase of rainfall. The estimate of the population of the city, founded on the census of 1891, is 9,738. The total death-rate from all causes during the year 1896 was 4 o per mille, and for 1897 11.8 per mille. A large number of deaths attributed to malnutrition and intestinal disorders occurred among infants under 2 years of age. This high mortality is due to the ignorance of the mothers of the principles of infant dieting, and in many cases to the fact that the mother being extremely poor is unable to secure proper food for herself while suckling the child, and having to go to work, is obliged to leave her child to be fed by others with most unsuitable food. Another factor contributing to this high infant mortality is the ignorance of the midwives in the methods of treatment of the navel, and we find as many as 11 deaths attributed to tetanus in the newborn. Bronchitis and heart disease are frequent causes of death. The former is most fatal in children under 4 years of age, and the latter in adults over 30 years. Pulmonary phthisis and pneumonia follow next with a mortality of about 6 per cent. Bilious remittent fever, malaria, and dysentery are less frequent causes of death, while kidney disease, cancer, and puerperal fever show a very small mortality.

MEDICAL NEWS.

ST. GEORGE'S HOSPITAL MEDICAL SCHOOL.—Dr. Isambard Owen has been appointed Joint-Lecturer (with Dr. Ewart) in Systematic Medicine, in succession to Dr. Cavafy. Dr. Lee Dickinson has been appointed Lecturer in Toxicology and Forensic Medicine, and Dr. Cyril Ogle Lecturer in Practical Medicine.

A **MEETING** of the School Dentists' Society will be held on Friday, January 13th, at the rooms of the Medical Society of London, when Mr. W. T. Elliott, Dentist to the Marston Green Poor-law Schools, Birmingham, will read a paper on Classification of the Ages of Children for the purpose of Statistical Observation.

SANITATION OF GIBRALTAR.—A new drainage system has been completed at Gibraltar, which should result in benefit to the health of the troops quartered there. Hitherto the Rock has had an unenviable reputation for bad odours and defective drainage.

THE TYPHUS FEVER OUTBREAK IN EDINBURGH.—The statement in the BRITISH MEDICAL JOURNAL of December 31st, 1898, that the recent fresh cases of typhus came from Greenside Row, requires correction. Of the five, four came from the neighbourhood of St. James's Square, and one from the original area in Simon Square, An outbreak in Greenside Row would be most undesirable, as it also is a condemned area.

A **LARGE** and representative gathering of ladies and gentlemen connected with the county of Linlithgow, assembled at St. Catherine's, Linlithgow, on the afternoon of Saturday, December 24th, 1898, to present Dr. James Hunter with a brougham-carriage, horse, and harness, as a taken of the great esteem in which he is held by the community as a medical practitioner. The presentation was made by Mr. Robert Mickel, Bonnytoun, in the unavoidable absence of Sheriff Melville. Mrs. Hunter was also presented with a suitable memento of the occasion.

MUNIFICENT GIFT TO A COTTAGE HOSPITAL.—The Bromley (Kent) Cottage Hospital, the largest institution of its kind in the kingdom, has received a substantial new year gift in the shape of a donation of £4,000 from Mr. J. Wheeler Bennett of Ravensbourne, Keston, for the endowment of the children's ward of eight cots, in perpetuity. The ward, which is to be named the "Jamie Wheeler Bennett Ward" in memory of the son of the donor, is part of the new wing of the hospital, which was erected in 1896.

MUNIFICENT BEQUESTS.—The late Mr. Woolf Joel has, by his will, bequeathed the following sums, among others, to medical charities. In order that the institutions may receive the full bequest, Messrs. Barnato Brothers will themselves pay to the Government the 10 per cent. legacy duty: Middlesex Hospital, £1,050; West London Hospital, £1,050; Charing Cross Hospital, £1,000; Home and Hospital for Jewish Incurables, £1,000; Jews' Hospital and Orphan Asylum, £1,000; London Hospital, £1,000; St. Mary's Hospital, £1,000; St. Thomas's Hospital, £1,000; Westminster Hospital, £1,000; Metropolitan Hospital, £1,000: the Cancer Hospital, City Orthopædic Hospital, Evelina Hospital for Sick Children, Gordon Boys' Home, Chobham; Hospital for Consumption and Diseases of the Chest, Brompton; Hospital for Women, Jewish Board of Guardians, National Hospital for the Paralysed and Epileptic, North-Eastern Hospital for Children, Queen Charlotte's Lying-in Hospital, Royal London Ophthalmic Hospital, City of London Hospital for Diseases of the Chest, and the St. George's Hospital, £500 each; Alexandra Hospital for Children with Hip Disease, Hospital and Home for Incurable Children, National Orthopædic Hospital, Paddington Green Children's Hospital, Public Dispensary, Clare Market; Samaritan Free Hospital, Seamen's Hospital, "Dreadnought," Surgical Aid Society, the Victoria Hospital for Children, £250 each; Central London Hospital, French Hospital and Dispensary, London Lock Hospital, Poplar Hospital for Accidents, Royal Hospital for Diseases of the Chest, Royal Westminster Ophthalmic Hospital, £100 each; Central London Throat, Nose, and Ear Hospital; Asylum for Idiots, Earlswood, Hospital for Epilepsy and Paralysis, Potter's Bar Cottage Hospital, Royal Hospital for Women and Children, Royal Orthopædic Hospital, St. Peter's Hospital, St. Saviour's Hospital, and the Willesden Cottage Hospital, £50 each.

THE PRINCE OF WALES'S HOSPITAL FUND.—We have already referred to the report of this body, and have now received the list of grants recommended by the Distribution Committee. The grants are as follows: London Hospital and Guy's Hospital, £5,000 each; St. Thomas's Hospital, £1,800; University College Hospital, £1,400; Middlesex Hospital, St. Mary's Hospital, King's College Hospital, Charing Cross Hospital, Victoria Park Hospital for Diseases of the Chest, North London Hospital for Consumption, £1,000 (the two latter on condition that certain of the beds now closed are opened); Westminster Hospital, Royal Free Hospital, National Hospital for the Paralysed and Epileptic, £750 each: Seamen's Hospital, Hospital for Sick Children, Great Ormond Street,

£500 each. King's College Hospital receives also a donation of £475 towards reflooring the wards, and the Hospital for Consumption, Brompton, a donation of £500 towards the cost of the proposed country branch and convalescent home, on certain conditions specified. The following donations have also been made: Metropolitan Hospital, London Temperance Hospital, West London Hospital, Alexandra Hospital for Children, Samaritan Free Hospital, London Lock Hospital (female), £500 each; Royal London Ophthalmic Hospital, £450; Hospital for Women, Soho Square, £350; North-West London Hospital, Chelsea Hospital for Women, Queen Charlotte's Lying-in Hospital, £300 each; West Ham Hospital, Mildmay Mission Hospital, Bolingbroke Hospital, East London Hospital for Children, North-Eastern Hospital for Children, £250 each; Miller Hospital, London Homœopathic Hospital, £200 each; German Hospital, Paddington Green Hospital for Children, £150 each; French Hospital, Royal Hospital for Diseases of the Chest (City Road), Royal Hospital for Children and Women, Grosvenor Hospital for Women and Children, £100 each; Establishment for Gentlewomen, Harley Street, £75; Memorial Cottage Hospital, St. Saviour's Hospital (Osnaburgh Street), British Lying-in Hospital, St. Peter's Hospital for Stone, £50 each. A number of small grants are to be made to convalescent institutions, amounting in all to £1,000. The grants made to hospitals amount to £31,500, and the grand total distributed by the fund for the year is thus £32,500.

MEDICAL VACANCIES.

The following vacancies are announced:—

BIRMINGHAM AND MIDLAND EAR AND THROAT HOSPITAL, Edmund Street, Birmingham. House-Surgeon. Salary at the rate of £42 per annum, with board, lodging, and washing. Applications to the Secretary by January 14th.

BOURNEMOUTH: BOSCOMBE HOSPITAL.—House Surgeon. Salary, £60 per annum, with board, lodging, and washing. Applications to the Secretary by January 11th.

BURNLEY: VICTORIA HOSPITAL.—Resident Medical Officer. Salary, £80 per annum, increasing to £100, with board, etc. Applications to the Hon. Secretary, 7. Grimshaw Street, Burnley, by January 10th.

COTSWOLD SANATORIUM FOR THE OPEN-AIR TREATMENT OF TUBERCULOSIS.—House Physician. Salary commencing at £80 per annum, with board, lodging, and washing. Applications to Dr. Pruen, Sherborne Lodge, Cheltenham.

DERBY: DERBYSHIRE ROYAL INFIRMARY.—Assistant House Surgeon. Salary, £40 per annum, with board, residence, and washing. Applications to the Secretary by January 18th.

FARRINGDON GENERAL DISPENSARY AND LYING-IN CHARITY, 17, Bartlett's Buildings, E.C.—Resident Medical Officer. Salary, £100 per annum, with apartments and attendance. Also Honorary Dental Surgeon. Applications to the Secretary by January 21st.

KENSINGTON DISPENSARY.—Resident Medical Officer, under 35 years of age. Applications to the Hon. Secretary, T. W. O. Wheeler, 20, Lower Phillimore Place, Kensington, W., by January 9th.

LIVERPOOL: ROYAL SOUTHERN HOSPITAL.—Resident Junior House Surgeon. Salary, 60 guineas per annum. Applications to the Chairman of Medical Board by January 9th.

METROPOLITAN HOSPITAL, Kingsland Road.—Assistant Surgeon; must be F.R.C.S. Eng. Applications to the Secretary by January 16th.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—Assistant to House Surgeon. Appointment for six months. Board, lodging, and washing provided. No salary. Applications to the Secretary by January 10th.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, Bloomsbury.—Senior House Physician. Junior House Physician is applicant. Candidates must state whether they would accept either appointment. Salary for Senior, £100, Junior £50, with board, and apartments. Also Pathologist. Honorarium 50 guineas. Applications to the Secretary, by January 9th.

NEWCASTLE-ON-TYNE DISPENSARY.—Visiting Medical Assistant. Salary, £120 for first year, £150 afterwards. Applications to the Hon. Secretary, R. W. Sisson, 13, Grey Street, Newcastle-on-Tyne, by January 18th.

NOTTINGHAM GENERAL HOSPITAL.—House-Physician. Salary, £100 per annum, rising to £120. Applications to the Secretary by January 31st.

OXFORD: RADCLIFFE INFIRMARY.—Surgeon. Applications to the Secretary by January 16th.

PLAISTOW: ST. MARY'S HOSPITAL.—Senior Resident Medical Officer. Salary, £80 per annum, with residence. Applications to the Secretary by January 16th.

ST. ANDREWS UNIVERSITY.—Additional Examiner for Graduation in Materia Medica. Appointment for three years. Applications to the Secretary, University Court, by January 14th.

SOMERSET AND BATH LUNATIC ASYLUM, Cotford, Taunton.—Assistant Medical Officer, not over 30 years of age, unmarried. Salary £120 per annum, rising to £150, with furnished apartments, board, fuel, lighting, and washing. Applications to the Medical Superintendent by January 7th.

STIRLING DISTRICT ASYLUM, Larbert.—Second Assistant Medical Officer. Salary, £100, with board, etc. Applications to the Medical Superintendent.

TOXTETH PARK, LIVERPOOL.—Senior Assistant Medical Officer of the Workhouse and Infirmary. Salary £100 per annum, with board, washing, and apartments. Applications, marked "Assistant Medical Officer," to the Clerk to the Guardians, 15 High Park Street, Liverpool, by January 11th.

TYNEMOUTH VICTORIA JUBILEE INFIRMARY, Spring Gardens, North Shields.—Resident House-Surgeon. Salary, £100 per annum. Applications to the Secretary, by January 11th.

MEDICAL APPOINTMENTS.

ANDERSON, E. L., L.S.A.Lond., appointed Assistant Medical Officer to the Mill Road Infirmary of the West Derby Union, Liverpool.

ARKLE, G. M., L.S.A., appointed Medical Officer for the Epileptic Institution at Belmont Grove of the West Derby Union.

BARTER, William, M.D., M.Ch., etc., appointed Medical Officer to the employees of the London District, Great Central Railway.

BRISCOE, John Charlton, M.R.C.S., L.R.C.P.Lond., appointed House Physician to King's College Hospital.

BURD, Cyril P., M.R.C.S., L.R.C.P., appointed Assistant House Surgeon to the Salop Infirmary, Shrewsbury.

COLLS, Percy Cooper, M.R.C.S.Eng., L.R.C.P.Lond., appointed House Surgeon to King's College Hospital.

DAVIES, Richard, M.D., Ch.M.Edin., M.R.C.S.Eng, L.R.C.P.Lond., appointed Medical Officer to the Workhouse of the Cheltenham Union, *vice* S. T. Pruen, M.D.Durh., resigned.

FURNIVALL, Percy, F.R.C.S.Eng., appointed Assistant Surgeon to the London Hospital.

GIBB, George, M.A., M.B., appointed Junior Physician to the Royal Hospital for Sick Children, Aberdeen.

GOUGH, H. B., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer of Health to the Northwich Rural District, *vice* T. W. H. Garstang, M.A.Oxon., M.R.C.S.Eng., D.P.H.Vict.

GREAVES, Frank, M.R.C.S., L.R.C.P., appointed House Surgeon to the Derbyshire Royal Infirmary, *vice* Percy Rycroft Lowe, L.S.A.

HAYNES, George Secretan, M.R.C.S., L.R.C.P., appointed House Physician to Addenbrooke's Hospital, Cambridge.

HOGG, F. S. D., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Bradwell District of the Maldon Union.

HUTCHINSON, M., L.R.C.S., L.R.C.P.I., appointed Medical Officer for the Buckhurst Hill District of the Epping Union, *vice* Alexander Ambrose, M.D.Dub., resigned.

LEVICK, Percy, B.A., M.B., B.C.Cantab., appointed House Surgeon to King's College Hospital.

LEWIS, Colton Taylor, M.R.C.S.Eng., L.R.C.P.Lond., appointed House Accoucheur to King's College Hospital.

LYNCH, Stephen Frederick, M.R.C.S.Eng., L.R.C.P.Lond., appointed House Surgeon to King's College Hospital.

MACGREGOR, G. R., M.D.Aberd., appointed Medical Officer of Health to the Bingley Urban District, *vice* J. W. Craig, M.D.Glasg.

MARSHALL, Charles Robert Shaw, M.A.Cantab., M.B., B.Ch.Vict., appointed Professor of Materia Medica and Therapeutics in St. Andrews University, *vice* W. H. De Wytt, M.B., C.M.Glasg., retired.

MASON, J. J., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Bollington District of the Macclesfield Union, *vice* J. Allen, L.R.C.P.Edin., M.R.C.S., resigned.

MATTHEWS, John Cox, B.A.Cantab., L.S.A.Lond., appointed an Assistant Medical Officer to the Gold Coast (Yarkwa) Railway, W. Africa.

MAY, G. E., M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer for the Third District of the Ware Union, *vice* A. J. Boyd, M.D., resigned.

PAKES, Walter C. C., D.P.H.Camb., appointed Professor of Hygiene in the Bedford College for Women.

RICHARDSON, A. Y., M.B., B.S.Dunelm, appointed Second Assistant Physician to the Suffolk County Asylum.

RICHMOND, S., M.D.Edin., M.R.C.S.Eng., appointed Medical Officer of Health to the Dartford Rural District Council.

ROBERTS, C. D. D., M.B.Lond., M.R.C.S.Eng., appointed Medical Officer for the Workhouse and the First District of the Dursley Union, *vice* D. J. Dutton, M.R.C.S.Eng., resigned.

ROBERTS, George Augustus, M.R.C.S.Eng., L.R.C.P.Lond., appointed Assistant House Physician to King's College Hospital.

ST. JOHN, Winstan St. Andrew, M.R.C.S., L.R.C.P., appointed House Physician to the Derbyshire Royal Infirmary, *vice* H. M. Tickell, M.D.

SAUNDERS, Leonard Dimock, M.R.C.S.Eng., L.R.C.P.Lond., appointed Assistant House Accoucheur to King's College Hospital.

SCHOLEFIELD, Geo. E., M.D.Edin., D.P.H.Vict., appointed Medical Officer of Health to the West Lancashire Rural District Council.

WEBSTER, T. L., M.R.C.S., L.R.C.P., appointed Assistant Medical Officer at the Walton Workhouse of the West Derby Union.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 8.30 P.M. Sir William Broadbent, Bart.: The Conduct of the Heart in the Face of Difficulties.

TUESDAY.

West End Hospital for Diseases of the Nervous System, 73, Welbeck Street, 4 P.M.— Dr. Harry Campbell: Cases of Locomotor Ataxy, with Observations on its Treatment.

Royal Medical and Chirurgical Society, 8.30 P.M.—Dr. James Calvert: Aortic Aneurysm as a Cause of Hypertrophy of the Left Ventricle. Dr. H. G. Turney and Mr. C. A. Ballance: A Case of Aortic Aneurysm; Involvement of Sensory Nerve-roots; Sudden Paraplegia; Laminectomy; Death.

WEDNESDAY.

Hunterian Society, 8.30 P.M.—Pathological evening. Specimens will be shown by Mr. Targett, Dr. F. J. Smith, Dr. Oliver, and other Fellows.

South-West London Medical Society, Town Hall, Wandsworth, S.W., 8.30 P.M.—Dr. J. B. Ball: Paroxysmal Sneezing and Allied Affections — their Causes and Treatment.

Dermatological Society of London, 11, Chandos Street, W., 5.15 P.M.—Clinical Demonstration.

THURSDAY.

British Gynæcological Society, 8.30 P.M.—Annual Meeting for the Election of Officers. President's Address.

Charing Cross Hospital, Post-Graduate Course, 4 P.M.—Dr. J. Mitchell Bruce: Cases in the Wards.

London Temperance Hospital, 2 P.M.—Dr. Soltau Fenwick: Clinical and Pathological Demonstration to Senior Students.

FRIDAY.

Clinical Society of London, 8.30 P.M. —Clinical Evening. Patients in attendance at 8 P.M. The following cases will be shown:— Mr. J. Hutchinson, jun.: Localised Myositis Ossificans from Injury. Dr. Crawfurd: Enlarged Spleen, with Thrill and Bruit. Mr. Curtis: Anterior Displacement of Tuberculous Carpus, with Formation of a False Joint. Skiagraphs and stereoscopic photographs (by Mr. Mackenzie Davidson) will be exhibited. Dr. J. S. Richards: Pemphigus of the Mouth, Pharynx, Larynx, and Skin. Dr. Batten: Progressive Muscular Atrophy after Measles. Mr. Kellock: Two Cases of Complete Hypospadias, with Cleft Scrotum. Dr. Perkins: (1) A Case of Progressive Muscular Atrophy, of unusual distribution; (2) A Case of Muscular Atrophy (Myopathic). Mr. L. A. Dunn: Charcot's Disease of the Hip. And other cases.

Incorporated Society of Medical Officers of Health, 197, High Holborn, W.C., 8 P.M.—Dr. A. Newsholme The Prevention of Tuberculosis, with special reference to Notification.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to insure insertion in the current issue.

DEATHS.

KELLY.—On December 29th, 1898, at Leeds, Major W. Kelly, R.A.M.C.

MAGORIS.—On December 26th, 1898, at Seamen's Hospital, Royal Albert Docks, Nicholas Magoris, M.D., aged 30, late Surgeon to the P. and O. Steam Navigation Co.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

Cancer, Brompton (Free). *Attendances.*—Daily, 2. *Operations.*—Tu. W. F., 2.

Central London Ophthalmic. *Attendances.*—Daily, 1. *Operations.*—Daily.

Central London Throat, Nose, and Ear. *Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—I.p., Tu., 2.30; o.p., F., 2.

Charing Cross. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.45; Dental, M., 9; Throat and Ear, F., 9.30. *Operations.*—Th. F. S., 3.

Chelsea Hospital for Women. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

City Orthopædic. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.

East London Hospital for Children. *Operations.*—M. W. Th. F., 2.

Great Northern Central. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F., 2.30; Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

Guy's. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 2. *Operations.*—Tu. F., 1.30; (Ophthalmic), M., 1.30; Th., 2.

Hospital for Women, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

King's College. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, daily, 2; o.p., daily, 1.30; Eye, M. W. Th., 1.30; Ear, Th., 2.30; Throat, M., 1.30; F., 2; Dental, M. Th., 10; Skin, W., 1.30. *Operations.*—W. Th. F., 2.

London. *Attendances.*—Medical, daily, i.p., 2; o.p., 1.30; Surgical, daily, 1.30 and 2; Obstetric, M. Tu. Th. F., 2; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, W., 9; Skin, Th., 9; Dental, Tu., 9. *Operations.*—Daily, 2.

London Temperance. *Attendances.*—Medical, M. Tu. W. Th. F., 1.30; Surgical, M. Th., 1.30. *Operations.*—M. Th., 4.30.

London Throat, Great Portland Street. *Attendances.*—Daily, 2; Tu. F., 6. *Operations.*—Daily, 2.

Metropolitan. *Attendances.*—Medical and Surgical, daily, 2; S., 9; Obstetric, W., 2; Eye, W., 2; Throat and Ear, Th., 2; Dental, Tu. Th. S., 9. *Operations.*—Tu. W., 2.30; Th., 4.

Middlesex. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., 1.30; o.p., M., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu. F., 9; Skin, Tu., 4; Th., 9.30; Dental, M. F., 9.30; W., 9. *Operations.*—Daily, 1.30.

National Orthopædic. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

New Hospital for Women. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30. *Operations.*—Tu. F., 9.

North-West London. *Attendances.*—Medical, daily, exc. S., 2; S., 10; Surgical, daily, exc. W., 2; W., 10; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

Royal Ear, Frith Street. *Attendances.*—M. W. F., 3; Tu. F., 9.30 and 7.30. *Operations.*—Tu., 3.

Royal Eye, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

Royal Free. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, W., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

Royal London Ophthalmic. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

Royal Orthopædic. *Attendances.*—Daily, 2. *Operations.*—M., 2.

Royal Westminster Ophthalmic. *Attendances.*—Daily, 1. *Operations.*—Daily, 2.

St. Bartholomew's. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. W. F., 2; o.p., W. S., 9; Eye, M. Tu. W. Th. S., 2; o.p., M. Th., 9; W. S., 2.30; Ear, Tu. F. 2; Skin, Tu., 9; Larynx, Tu. F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9; Electrical, M. Tu. Th. F., 1.30. *Operations.*—Daily, 1.30; (Ophthalmic), Tu. F. 2; Abdominal Section for Ovariotomy, F., 2.

St. George's. *Attendances.*—Medical and Surgical, daily; i.p., 1; o.p., 12; Obstetric, i.p., Tu. F. 1.45; o.p., M. Tu., 2.30; Eye, W. S., 1.30; Ear, Tu., 2; Skin, W., 2.45; Throat, F., 2; Orthopædic, F., 12; Dental, M. Tu. F., S., 12. *Operations.*—Daily, 1; Ophthalmic, M., 1; Dental, Th., 9.

St. Mark's. *Attendances.*—Fistula and Diseases of the Rectum, males, S., 2; females, W., 9.30. *Operations.*—M., 9; Tu., 2.30.

St. Mary's. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 12.45; Obstetric, Tu., F., 1.45; o.p., M. Th., 1; Eye, Tu. F., 9; Ear, M. Th., 9; Throat, Tu. F., 3; Skin, M. Th., 9; Dental, W. S., 9; Electro-Therapeutics, M. Th., 2.30; Children's Medical, Tu. F., 9. *Operations.*—M., 2.30; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

St. Peter's. *Attendances.*—M., 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

St. Thomas's. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F. 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Th., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. F., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

Samaritan Free for Women and Children. *Attendances.*—Daily, 1.30. *Operations.*—Gynæcological, M., 2; W., 2.30.

Throat, Golden Square. *Attendances.*—Daily, 1.30; Tu, F., 6.30. *Operations.*—Daily, exc. M., 10.

University College. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. F., 1.30; Eye, M. W., 1.30; Ear, M. Th., 9; Skin, Tu. F., 2; Throat, M. Th., 9; Dental, Tu. F., 9.30. *Operations.*—Tu. W. Th., 2.

West London. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th., 2; Ear, Tu., 2; S., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, M. Th., 2; Skin, M. F., 2; Throat and Nose, Tu., 2; S., 10. *Operations.*—Daily, about 2.30; F., 10.

Westminster. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, Tu. F., 9.30; Ear, Tu., 1.30; Skin, W., 1.30; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

Communications respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the Journal, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* British Medical Journal *alone, unless the contrary be stated.*

Authors desiring reprints of their articles published in the British Medical Journal are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

Correspondents who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

Correspondents not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

In order to avoid delay, it is particularly requested that ALL letters on the editorial business of the Journal be addressed to the Editor at the Office of the Journal, and not at his private house.

Telegraphic Address.—The telegraphic address of the EDITOR of the British Medical Journal is *Aitiology, London.* The telegraphic address of the MANAGER of the British Medical Journal is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are directed will be found under their respective headings.*

QUERIES.

S. H. W. J. asks for experience of the treatment of hæmorrhoids by injection; and where he can find the literature on the subject.

A. K. desires to hear of an institution or home where a young man of feeble intellect (not an idiot) could be received. He is of gentle birth, and a small sum could be paid for his maintenance.

ANSWERS.

D. L. D.—It would appear to be clear that a separate fee should be paid for each inquest and each *post-mortem* examination.

F. C. E., X. Y. Z.—We have no information as to the operations of the syndicate, but it would appear to hold itself out as the proprietor of a secret remedy. Our correspondent can, therefore, have no hesitation in declining to have anything to do with it.

Doubtful.—An English medical man can practise among his own countrymen at a French watering place, but it is at his own risk and peril. The degree of risk will in practice depend on so many different circumstances that it is impossible to estimate it in a particular case. A certain period of residence in a French university is required for graduation.

Motor-Cars.

P.W.—The address of the Beeston Motor Company is Coventry. Nearly all the existing motor cars can be seen in the various showrooms on Holborn Viaduct.

Emergency Attendances.

Dr. B. did quite right in complying with the wish of the patient's father and accepting the fee for services rendered and completed. His obvious ethical duty was then to have written to Dr. W., explaining all the facts and enclosing the fee paid. It would rest with Dr. W. either to return the fee, share the fee, or retain the fee; the only guiding rules here are courtesy and mutual obligation. The partner's position is not involved in the question.

Professional Responsibility and Professional Secrecy.

Medical Ethics.—The question asked by our correspondent raises the point about professional secrecy which has during recent years been so much discussed. In our opinion it was the duty of our correspondent to report truthfully when called upon to do so respecting any case of an employee who had been under his care in his capacity of medical officer to the company, and the company would have been justified in dismissing him for neglect of duty if he had failed to do so.

Duties of Certifying Factory Surgeons.

R.C.M.—It is no part of the regular duty of a certifying surgeon to make an investigation as to whether or no a nuisance arises from any process. He may, however, be called on by the Home Secretary, under the Factory Act of 1895, to do so, and in that case would be entitled to a special fee, which the Home Secretary is authorised by the same Act to pay. Our correspondent does not seem to have been authorised by the Home Secretary or anyone acting directly on his behalf to make the inquiry, and it would seem, therefore, that he has no claim against the Department for a fee. The claim for remuneration must be against the individual personally who asked him to make the report, and it is doubtful how far it would be advisable to press for payment. Certifying surgeons have frequently, in past times, been consulted by H.M.'s Inspectors under the Factory Act on questions of sanitation, and have given their advice freely without remuneration, though they have felt that they should not be called upon to work, directly or indirectly, in the service of the State without adequate payment.

The Retainer System.

Assistant Colonial Surgeon.—With reference to our answer in the British Medical Journal of November 5th, 1898, to "Colonial Surgeon," our correspondent writes to complain that we had been told only one side of the story. If our correspondent will look at the answer to which he refers he will see that we were asked to express an opinion as to whether an officer should keep practice which had been handed over to him to perform for a brother officer absent on leave, and we can only reiterate the opinion that to do so would be contrary to the ethical principles upon which medical practice is conducted. We do not see that the various grievances of which our correspondent complains alter the aspect of the question. He is of course not under any legal obligation to take the private practice of a brother officer, but if he undertakes it the usual principles applying to such cases should be observed.

NOTES, LETTERS, Etc.

Preliminary Examinations.

Mr. H. E. Allen (Registrar, General Medical Council) writes: I notice that in the table referred to in my letter in the British Medical Journal of December 21st, 1898, showing the number of candidates reported as being deficient in general education an asterisk indicating that certain bodies are no longer on the Council's list has for some reason dropped out from before the name of the Royal College of Surgeons in Ireland. I should be obliged if you could call attention to this omission.

Tuberculosis and Canaries.

Dr. Tucker Wise (Montreux, Switzerland) writes: From cases of pulmonary tuberculosis which have come under my own observation I am of opinion that in many instances diseased cage-birds—such as canaries, linnets, etc.—communicate tuberculosis to a serious extent amongst human beings. As about 400,000 canaries are reputed to be sold every year in the United Kingdom, the distribution of tubercle by this bird alone, when disease attacks it, must be considerable. In a recent work by Friedberger and Fröhner on *Veterinary Pathology* (translated by M. H. Hayes, F.R.C.V.S., 1898), it is stated that tuberculosis is one of the most common diseases of birds. I hope in a short time to send you evidence from cases which I have investigated in support of my assertion.

HOT-AIR BATHS.

DR. W. S. HEDLEY (Mansfield Street, W.) writes: Several interesting communications have lately appeared in the BRITISH MEDICAL JOURNAL on the curative uses of heated air. In this connection I always feel disposed to ask myself the question, Why rely on heated air? When a person warms his hands at the fire, the heated air plays a very insignificant part in the process. The effect is produced by direct heat rays. Such radiation is, as everyone knows, propagated by the ether, not by the air. The air may be hot or cold, or there may be no air at all—a vacuum—yet the impulses imparted to the ether from the molecular movement of the heated body travel onwards, and impinging upon anything that lies in their path communicate to it the same molecular motion (heat). Therefore why not project heat rays directly on the part to be warmed? Substances that can be incandesced on the principle of the electric glow lamp afford an easy means of doing this; with the very great additional advantage that the source of heat is also the source of light. It is easy to show that in order to get the most intense heat rays the heat-producing source ought to be of a luminous character. It has been proved by direct measurement with the thermopile that if when a heated spiral of platinum appears dark the radiation of the obscure band of the spectrum be represented by 1, at a full white heat it would be represented by 122. The ideal system of getting high temperatures for the purposes in question would seem to be the use of direct radiant heat from a luminous source with suitable arrangements for screening and diffusing it if desired.

HEALTH AND SICKNESS ASSOCIATION.

MR. HENRY BROWN (Sickness, Accident, and Life Association, Limited, Edinburgh) writes: In the BRITISH MEDICAL JOURNAL of December 24th, 1898, a paragraph appears summarising the experience of one of your correspondents of his connection with the Health and Sickness Association, and as a similarity of name has apparently led certain members of the medical profession to assume that this Association is referred to, I beg that you will allow me in your next issue to state that there is no connection directly or indirectly between the two companies. This Association was founded in 1885, and was registered under the Life Companies Act a year ago, £20,000 being then deposited with the Government. Its last issue of shares was made at a premium of over 200 per cent., and no shares have ever been issued in connection with medical appointments. They are in fact not obtainable through other than the recognised market channels.

THE TREATMENT OF SYPHILIS BY INUNCTION.

DR. H. OPPENHEIMER (London, E.C.) writes: It is with the greatest interest and pleasure that I have read Brigade-Surgeon-Lieutenant-Colonel Myers's letter on Syphilis in the BRITISH MEDICAL JOURNAL of December 17th, 1898. From a rather large experience in civil life, I can fully endorse every point he urges in his appeal.

There is, no doubt, a tendency with many medical men to defer active treatment till secondary symptoms set in. I do not know of any theoretical or practical grounds on which this practice is founded; in my opinion it is justified only in those very rare cases where the character of the primary lesion is at all doubtful. In describing the rose rash and the other signs of the secondary stage as constitutional symptoms, we express the fact that while the Hunterian chancre is a mere local manifestation of the disease, the virus not having spread beyond the nearest group of lymphatic glands, the appearance of the secondary symptoms proves that the *materies morbi* has passed the inguinal glands, which for a time act as a filter and retinaculum, and has entered the blood. Why should we not try to prevent the infection of the system, if this is possible? And that it is possible a great number of my own cases prove. In a large proportion of cases I succeeded by early treatment in averting all subsequent manifestations of the disease, while in others the ensuing signs of constitutional syphilis were few and the whole course very mild. But in order to accomplish this large doses of mercury have to be given from the very onset, not the minute or even infinitesimal doses to which Dr. Myers refers, and which are characteristic of the internal method. In many parts of the Continent, and particularly in Germany, the profession does not entertain any doubt as to the superiority of the old plan of mercurial inunction over any other, and my experience fully confirms this, as far as the early stages are in question. I consider it superior to the hypodermic injections, though even these are preferable to the internal plan in the early period, and whenever practicable I insist on at least one eight weeks' course of mercurial rubbing being gone through. Of course, it is easier, more cleanly, and less troublesome for the patient to swallow some pills or medicine, and every single one after his first experience with the ointment comes to me with the question whether there is no medicine that will cure the disease. But wherever the patient has enough moral courage to undergo the cutaneous treatment, I insist on it, as I think it is far more rapid and reliable in its action than any other plan. But it is not sufficient to prescribe the treatment; for in several cases of my own practice it was carried out in such a slovenly manner that I felt myself compelled to advise discontinuing it and to prescribe some other treatment. For this reason, it is imperative personally to keep the patient under supervision while undergoing cutaneous inunction, and I find that the energy and completeness with which it is carried out, are in an inverse proportion to the duration and severity of the disease, and an accurate gauge as regards prognosis.

POST-MORTEM CÆSAREAN SECTION.

MR. J. L. IRWIN MOORE, M.B. (Leicester) writes: In the interesting article on *Post-mortem* Delivery in the BRITISH MEDICAL JOURNAL of December 24th, 1898, reference is made to the question of survival of the child *in utero* after death of the mother, and to the want of evidence that the child *in utero* may survive the death of the mother for more than a few minutes. The following case seems to me to be of interest in connection with the question of time limit. The record of the case is complete, and the evidence of the time of actual occurrence of death satisfactory. It was read before the Edinburgh Obstetrical Society by Peter Brotherston, F.R.C.S., February 26th, 1868, and is published in the *Edinburgh Medical Journal* for April, 1868:

"Patient had fallen down in a fainting fit. She had been sitting by side of fire, and fell forward from the chair on which she had been sitting on her knees, with her face on the ground; her abdomen was not resting on the ground, and her arms were under her." Cæsarean section was performed twenty-three minutes after the death of the patient, a large, healthy female child at full term being extracted. Artificial respiration was begun. "The child's arms and legs, which were quite flaccid before, now became stiff, and its heart was felt to be beating; it gave a convulsive sob or two, and I had no doubt that it would live. In about half an hour from the time I commenced the artificial respiration the child was struggling and crying, and was as fine and healthy a child as I have seen."

LETTERS, COMMUNICATIONS, ETC., have been received from:

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A LECTURE
ON
POLYMYOSITIS.

Delivered at the National Hospital for the Paralysed and Epileptic.

By SIR W. R. GOWERS, M.D., F.R.S.,
Physician to the Hospital; Consulting Physician to University College Hospital.

GENTLEMEN,—I desire to direct your attention to-day to a rare disease, which is important because it is a formidable malady and, though uncommon, has close relations with others which are more common and more familiar. It is a disease that has been termed "polymyositis." It consists in the simultaneous inflammation of many muscles and of some nerves—an inflammation that is symmetrical in its distribution. I am not sure that it has yet obtained a place in English descriptive medical literature or in the systematic teaching on which you chiefly depend for your knowledge; but the case I have to show you is an extremely well-marked example of the affection in a severe degree, and may therefore serve to impress on you its most characteristic features.

Let me first remind you of some facts relating to polyneuritis, with which this affection is closely allied, and which, indeed, forms part of it; the nerves suffer in association with the muscles, although, it would seem, less widely. You are all, no doubt, acquainted with "multiple neuritis," comparatively new to our nomenclature, but doubtless, beyond comparison, old in undiscerned familiarity. Its causes must have been always with us, and their effects cannot have been absent. The names we apply are not entirely appropriate. We call it "polyneuritis," "multiple neuritis," and "peripheral neuritis." These terms, however, are also applicable to other affections. We meet with inflammation of many nerves of quite different character and distribution. The designation "peripheral neuritis" has also been otherwise used, and it describes three features of inflammation of nerves—the fact that the affection is chiefly localised in their peripheral extremities; the fact that it affects chiefly the peripheral extremities of the limbs; and it has also been employed as a designation of affections of the nerve trunks in distinction from central disease. No term indicates that which is the chief characteristic of the disease, its bilateral symmetry. The motor nerves may be most conspicuously involved, or the sensory nerves may be primarily disordered—excited to spontaneous sensations or to hyperæsthesia—or they may be impaired so as to produce diminished sensibility, but in all cases the symptoms are bilaterally symmetrical. The symmetry is not always absolute; one side may be affected somewhat earlier, or in rather greater degree, than the other; but the correspondence of the affection of the two sides, whether it be in the arms or legs, or both, is the dominant feature. The two seldom present conspicuous differences, either in the area involved or in the character of the symptoms, and the correspondence is often remarkably precise.

This feature is not only the most characteristic; it is also, like most real characteristics of disease, the most significant. It indicates the nature of the cause of the affection. It shows the presence of a cause which is able to act upon structures of similar susceptibility on each side, that is, of a cause reaching all parts but acting only on those which present a special disposition to suffer from its influence. Bilateral symmetry, the correspondence on the two sides of the affected structures, is a feature which is far more than superficial. Not only does it involve correspondence of external conformation of the symptoms; it involves also correspondence of the incidence of the malady and of the vital characteristics of the corresponding structures that are involved. It implies a like susceptibility to morbid influences, and a correspondence in the effects of agents which are able to reach the two sides and to exert their influence, whatever that may be, on the similar structures. For any agent to act in the same manner on these distant but corresponding parts, it must reach them by the only path to which they are equally accessible, namely, the circulation.

It is true we may have a bilateral correspondence in consequence of another process. Similar tissue elements on the two sides may fail in their nutrition because they possess an inherent defective vitality. That which we may call the vital endurance of the tissues is sometimes less in some structures than in others, and in consequence those which have less resistance slowly decay before the rest of the body, fail prematurely in their nutrition and in their function. Such failure is generally a senile change, although by a strange defect of local vitality it is sometimes met with soon after adult life is reached. In these cases, however, the failure of nutrition is an extremely gradual process, and the symptoms are correspondingly slow in their evolution. In the cases with which we are now concerned the symptoms are more or less rapid in their development. Such rapid failure of nutrition and disturbance of function in corresponding structures on the two sides may be safely taken as an indication that toxic agent exists in the blood, an agent which is carried to all parts, but acts only on those which are specially susceptible to its influence.

Remember this great fact of the bilateral symmetry of symptoms, because it is of extreme practical importance. In the more common forms of the disease of the nerves, due to a toxic agent in the blood, the influence is exerted on the motor fibres, and the result is a symmetrical paralysis of the muscles, especially of the extremities, those that extend the wrist and fingers, or the homologous muscles which flex the ankle-joints and extend the toes, or of both. But not rarely the chief incidence of the toxic agent is on the sensory nerves, causing first subjective sensations in the extremities, and then, if severe, producing diminution and even loss of sensibility. In such cases there is commonly also loss of the knee-jerk. This indeed commonly results from the affection of the motor nerves, but in sensory neuritis it apparently depends on an early interference with the conduction of the afferent impressions through the sensory muscle nerves. There may even be definite ataxy, probably as a result of a greater degree of the same process.

The number of toxic agents which are capable of thus influencing the function of the nerves is great and their nature is most varied. Foremost among them are substances received from without—metallic poisons and some organic poisons, as alcohol. Some of the latter result from the growth of low organisms, and probably other substances of a more or less analogous origin, but of uncertain nature, having the same effect. A similar pathogenic influence may be exerted by poisons produced within the body. Some of these are the result of the growth of bacterial organisms, introduced from without, but generating the toxin, directly or indirectly, in the course of their development within the body. It seems to be in this manner that the polyneuritis occurs with which we have become familiar as the sequel of many acute specific diseases. But besides the poisons of this class, we have evidence of others. The disordered metabolism which takes place as the result of constitutional conditions, such as gout, seems occasionally to result in such toxic agents, the effect of which may be greater in consequence of some predisposition to suffer on the part of the individual, a state of general imperfect nutrition, and therefore of imperfect resistance to deleterious influences, whatever be their nature.

In other conditions there seems to be a state of the system which disposes it to react in a peculiar manner under external influences, so that a special toxic agent is produced under the influence of an external cause which we cannot even associate with a bacterial agency—such a cause as the exposure to cold. You know how various and grave may be the effects of this exposure. It may cause simply tonsillitis; it may cause rheumatic fever with all its manifestations; it may cause pericarditis alone. How the exposure produces its consequences we cannot yet surely discern, or indeed discern at all, beyond the fact that we have no reason to suspect the introduction of toxic agents into the system from without, and we are therefore thrown back on the assumption that the chill induces some disorder of the chemical processes within the body. These are always going on; they constitute the source of all the manifestations of vitality; but their normal course depends on a precise adjustment of many influences, some of which seem readily to be disturbed. Remember, moreover, that the slightness of a deranging cause may be no measure of the degree of the derangement produced, nor of its extent. In a complex organism, such as our frame, one process set wrong acts upon others, and there seems to be a mutual action and reaction of the interrelated processes, so that a simple wetting of the feet may lead to a grave general disease.

It is a trite observation that but a narrow boundary separates life from death. An equally narrow one separates health from disease, and the same truth may be traced downwards in all the subsidiary processes, the sum of which makes up health and the condition of normal life. The change need often only be small which converts a material that subserves normal nutrition into one which is capable of arresting tissue life. You will remember the researches of Martin on diphtherial paralysis which have shown that a small quantity of a ferment produced by the diphtherial organisms in the throat will set wrong the chemical processes in the spleen and elsewhere concerned in the elaboration of the albumoses for the nutrition of the body. The change is probably one of slight degree, but it results in the production of a poison capable of paralysing the nerve structures of the body, and so leading to that sequel of diphtheria which is only less terrible than the disease itself. These considerations enable us, if not to understand, at least to conceive, that so simple a process as exposure to cold may result in the production of diseases of various and grave character, some of which we are compelled by all analogous facts to refer to toxic material produced in the body by deranged chemical processes.

Such toxic agents seem to have a more varied influence than the definite poisons received from without, and this is true of those that are due to exposure to cold. Among their effects is the polyneuritis of which I have spoken. One feature presented by this form is its frequent severity and acuteness in some cases, chronicity in others. Another important fact is that to which I desire especially to direct your attention to-day—that the inflammatory process may involve the muscles as well as the nerves, and even more widely than the nerves, producing the malady termed polymyositis. This result is met with almost exclusively as a result of exposure to cold. It seems to be a peculiar variety of the rheumatic poison produced in specially susceptible individuals, rendered such by some influence which depresses the general health. In such cases of multiple inflammation of both the muscles and the nerves, the affection presents the general distribution of polyneuritis so far as preponderant loss of power is concerned, but with a far wider implication of the muscles, of which many suffer that escape in ordinary polyneuritis. They are at first very tender, and afterwards undergo hardening and contraction, which may be extreme in degree; and indeed, after a time, may be insuperable, and resist all efforts to overcome it. It is an example of this disease that I have to show you to-day. It is the late stage of the disease which this patient presents, but its results are only too conspicuous, and its late stage may not render it the less instructive. She has been under treatment here for many months, and has improved very much in some parts, although in others we have been less successful. I had better give you the account of her history, which is contained in the hospital notes.

The patient is a married woman, now 36 years of age, the wife of a labourer. She was admitted here ten months ago with almost universal palsy. Her father had suffered twice from rheumatic fever, and his father was the subject of gout. This should be noted; it illustrates the fact that the majority of those who are liable to rheumatic fever are the children of a gouty parent. It is an important fact, and one that curiously illustrates the manner in which important causal facts elude discernment, until they are specially looked for. If you are on the look-out for it you cannot fail speedily to obtain evidence of its truth from your own experience; and yet few persons, surprisingly few, have noted it until their attention was directed to the sequence. It is one of the many points of connection between gout and articular rheumatism. Some change in the process of hereditary transmission seems to convert the gouty diathesis into what we regard as a purely rheumatic diathesis, which finds its expression in the most concentrated form of rheumatism, rheumatic polyarthritis.

This by the way. The patient had the hard-worked life of women in her class. She occasionally took spirits, but close questioning failed to elicit evidence of excess. The affection came on after the death of her mother, whom she had nursed sedulously, with the result that she was constantly over-tired and often exposed to cold at night. The first symptoms were a constant tired feeling and aching pain in the back and around the loins. An irritable rash appeared over the hands and arms. Such a symmetrical eruption is always proof of a morbid state of the blood. Then she began to have pain in the hands and also in the ankles, and both hands and feet became weak. These symptoms slowly increased during two or three months, and in October, 1896, the feet had dropped and she could not get upstairs, and had difficulty in sitting upright. By the end of that year the arms and legs and trunk had become much weaker, and she was taken into a general hospital for seven weeks. At the end of that time she could not stand, and the limbs and trunk were getting stiff so that she could not bend forwards. In a sick asylum, to which she went next, and where she remained eight months, the stiffness steadily increased, and the arms and legs became rigid in the position of flexion, but the pain became slighter.

When admitted here she was so helpless as to be unable to sit up; she was continually perspiring, and complained of shooting pains in the shoulders. The only symptoms in the region of the cranial nerves were in the movements of the face and jaws. The facial muscles acted slowly and imperfectly, apparently from stiffness, and there was contraction of the masseters, which felt firm, and their rigidity prevented the mouth being opened widely. Rigid contracture existed in all the muscles of the neck, limiting its movements. The head was quite stiff upon the trunk, and hardly any flexion of the neck was possible, obviously from the muscular contraction. The same rigidity existed in the muscles of the back, and she could not bend the trunk either backwards or forwards. She had to be moved in bed as one stiff piece. The same condition of rigidity and contracture was most conspicuous in all the muscles of the upper limbs. Slight voluntary contraction could, however, be produced in most of them. But the arm was adducted by contraction of the pectoralis, and passive movement could not draw it from the trunk beyond an angle of 45°. The elbow was flexed, and contraction of the biceps prevented its extension beyond an angle of 60°. The hands were dropped at the wrist, and the fingers flexed and could not be extended completely. All the muscles of the arms and hands were much wasted, but although small they were extremely hard and firm; this was the case in both flexors and extensors. Voluntary movement was abolished in the extensors of the wrist and long extensors of the fingers, but only a very slight degree could be produced in the other muscles of the arms. All the muscles reacted very slightly to strong electrical stimulation, the faradic shock, or the interrupted voltaic current. The response to the latter was normal, so far as the poles were concerned, and it had the sharp, quick, character which indicates, like the faradic irritability, stimulation of the intramuscular nerves and not of the muscular substance itself. The latter contracts with a peculiar sluggishness, which presents a marked contrast with the instant response when even a few normal nerve fibres subserve. Sensation on the arms was quite normal. The rigidity prevented any reflex response to stimulation.

Both legs were extremely rigid, and all the muscles were small and hard. The feet could not be flexed. Neither the hip-joints nor the knee-joints could be passively extended, on account of the contraction of the flexors, and that in the extensors of the knees prevented flexion to more than 15 degrees from the position of complete extension. She had, however, just enough power over the flexors of the hip to raise each foot from the bed, but she could not flex the knee or move the foot at the ankle-joint, although the muscles could be felt to contract slightly on a voluntary effort. The contraction in the calf muscles was so great that the feet could not be passively brought nearly to a right angle with the leg.

In all the muscles of the legs and feet response could be obtained to both faradism and voltaism, but the contraction was slight which could be obtained even with a strong current. The polar reaction was normal in the legs also, except in the muscles of the calves, in which the A.C.C. was obtained more readily than the K.C.C.

Sensibility in the lower limbs was everywhere normal. No pain or subjective sensation was complained of, but there was some pain in the back. The deep reflexes could not be anywhere obtained. There was no affection of the sphincters. A curious symptom was the excessive amount of perspiration, both on the face and limbs. Apart from exertion the sweat would often stand in beads on the surface.

That was her state on admission. Unfortunately the affection had then reached an advanced and chronic state. The inflammatory process in the muscles had attained its cicatricial stage, in which the newly-formed connective tissue, almost universally distributed, had already contracted. We know, from varied experience, in many places, and in many forms, how strong is the contracting tendency of this abnormal structure. In this patient we have striven to overcome the contraction by passive extension and by massage, and have endeavoured to increase the strength of the muscular fibres by movements and electricity as well as by therapeutic agents. I cannot say that much change has been produced in the arms. But if our success in improving the condition of the arms has been small, we have at least the satisfaction of having done good to the legs and back. Their condition is far better than when she came under our care. We have succeeded in overcoming the contraction of the hip and thigh muscles by passive extension, and so have enabled her to use the limbs, with the result that there has been a great increase of their power. The inability to stand has been exchanged for the ability not only to stand, but also to walk. There is still some contraction in the calf muscles, preventing full passive flexion of the ankle joint, but this residual amount will soon yield under perseverance in standing and walking, the most potent of all agents for the purpose. The state of the arms you can observe. In spite of variously contrived efforts to obtain the extension of the elbows, as you see, the contraction of the biceps prevents the extension of the forearm. That of the flexors of the wrist prevents the full extension of this joint, and the abduction of the upper arm is hindered by the contraction of the adductors, and especially of the pectoralis major. Note how the rigidity of this muscle prevents the movement of the arm far from the side. The deltoid, the chief abductor, is rigid and firm, and presents much less response to the faradic stimulus than does the pectoralis. You may observe the same relation between the voluntary power and the degree of shortening in other opposing muscles, in the biceps and triceps, and also in the forearm muscles. She can produce only very slight contraction by the will in the extensors of the wrist and fingers, while there is considerable voluntary power in the flexors. The electrical irritability agrees in the degree of response to the voluntary power. Accordingly, though both sets of muscles are small and hard, those which are least paralysed are most contracted. We may see in this the correspondence of this affection and polyneuritis. There is the same flexor contraction and extensor weakening in both sets of muscles, although all are involved in the cicatricial inflammatory changes. We must therefore infer that there is polyneuritis as well as polymyositis, that both nerves and muscles are involved in the morbid process; but the affection of the muscles is far more extensive than it is in the pure affection of the nerve. How widely and profoundly the former have been involved is shown not only by the degree of hardening and contraction, but by its extensive distribution. The affection of the facial muscles still exists; you may note not only its stiff aspect, but the small amount of movement which results from voluntary or emotional influence, for still more evident is the contraction of the masseters. As you can see, she cannot open her mouth to much more than half the normal extent, and if you presently feel the muscles as thus extended you will note how hard they are and how distinct it is that their contraction is the agency which prevents a greater depression of the jaw.

I do not doubt that her power of walking will improve to a useful degree. Its influence on the contraction of the calf muscles is, as I have said, steady and maintained. It is surprising how much contracture may be thus overcome in the course of time, even a degree that, at first, seems to permit the expectation of release only from tenotomy. But we have no means to effect the extension of the arms of similar potency. I fear we shall not be able to secure her ability to use effectively what power she possesses in the hands without having recourse to division of the tendons of the biceps. Once developed, such contraction of the flexors of the elbow is a most formidable condition. The extensors act at great disadvantage when the joint is flexed, while the influence of the flexors is then at its maximum, while we have no habitual movement of which to avail ourselves, comparable to that of the weight of the body on the contraction of the calf muscles.

This therapeutic inability brings me to the last point which I desire to impress on you, and like many last words it is the most important. The scope for treatment, at this stage of the affection, is small. If you picture to yourselves the pathological condition, you must conceive the muscles as now containing only a small proportion of normal fibres, and that these are separated by fibrous tissue which has undergone cicatricial contraction. Many muscular fibres have perished in consequence of the acute inflammation and of the degeneration of their nerve fibres. The primary disease had already ceased when she came here, and only its effects remained. You know, in all diseases, what a different task it is to treat the primary affection and to treat its late results when these consist of grave structural damage. So far as recovery of the partially damaged muscles is concerned, these have probably regained as nearly a normal condition of the remaining fibres as they can reach. Some increase of power, however, may result from their voluntary use, if this can be increased by getting rid of the disabling shortening which interferes with all effective employment of the arms. But in this, as in so many diseases, the only opportunity for really effective treatment is that which is presented in the early period of the case, when the malady is in the stage of development. I cannot doubt that, in this patient, rest, diaphoretics, and salicylates, with perhaps small doses of mercury, would then have controlled the inflammation, and lessened very much the subsequent mischief which it has induced. Every degree of diminution of the intensity and duration of the active processes of disease is multiplied many times in the ultimate diminution which is thus caused in the later and permanent condition. I emphasise the fact, because to some of you may come the opportunity of treating such a case in the only stage in which treatment can be really effectual, and because the general lesson is applicable to many maladies of many kinds.

A CLINICAL LECTURE

ON

A CASE OF UNILATERAL (HEMIPLEGIC) SPASM AND CONTRACTURE WITHOUT PARALYSIS.

Delivered in the University of Edinburgh,

By SIR T. GRAINGER STEWART, M.D., LL.D.,
Professor of the Practice of Physic, Physician-in-Ordinary to the Queen for Scotland, and President of the British Medical Association.

(Concluded from page 6.)

THE outstanding features of the case as explained in the part of the lecture already published are:

A soldier, aged 25, had severe typhoid in India; on recovering from coma, found himself unable to use his left hand on account of stiffness of the fingers. Gradually they became flexed, and the arm, foot, leg, and left side of face became rigid with constant hypertonicity and frequent tonic spasms. This condition makes him resemble a case of hemiplegia with descending sclerosis, but there is no paralysis, and all the muscular disability is due to antagonistic action of opposing muscles. Otherwise at present no abnormality of any system or of the nervous system in any respect, except the unilateral spasm. The locomotory system is interfered with only in so far as the spasm, the contracture, and the consequent changes in joints and bones are concerned. He has, since his illness began, had two attacks of mania.

It should be particularly noticed, as to the state of the muscles, that the deep reflexes are exaggerated, and that, although the electric relations differ on the two sides of the body, there is no trace of the reaction of degeneration.

The condition thus described is, so far as my own observation goes, unique, and I have not been able to find an exactly corresponding case recorded in any books to which I have had access. Neither have any of the eminent authorities in neurology, to whom I have shown or described the case, met with one precisely similar.

It is a difficult task to attempt to settle the probable nature of the process, and in considering such a question I like to inquire, first, what is the seat of the disease, and, secondly, what is the nature of the morbid process.

I.—As to the Seat of the Morbid Action.

The fault might lie (1) in the muscles themselves, (2) in the lower neuron, either in the nerve fibres supplying the muscles or in the white columns or the cells of the spinal cord, (3) in the upper neuron, either in its fibres or in the motor area of the cortex or possibly in one of the basal ganglia.

1. *Is it in the Muscle?*

A. *Myositis.*—It is scarcely necessary to argue against this suggestion for the unilateral distribution of the symptoms, the examination of the muscles themselves, and the condition under chloroform conclusively exclude it.

B. *Hypertonicity of Muscular Origin.*—No such condition has been recognised, and the history of the case as well as the unilateral distribution lend no support to such an explanation.

2. *Is it in the Lower Neuron?*

A study of the case warrants the exclusion of the lower neuron as a possible seat of disease (*a*) because there is no paralysis, (*b*) because there is no trophic change, (*c*) because there is no reaction of degeneration, (*d*) because the reflexes, superficial and deep, are exaggerated.

3. *Is it in the Upper Neuron?*

It is thus clear that the lesion must be proper to the upper neuron, and must be referred (*a*) to the fibres, or (*b*) to the cellular structures of the grey matter.

A. It cannot be referred to the fibres, for no change in them could suffice to produce such a group of symptoms.

B. It must, therefore, be referred to the cellular structures of the grey matter. There are two areas of grey matter which might be suspected, namely, the Cortex and the Optic Thalamus. It is obvious enough that an irritation of the cortical cells might conceivably give rise to such irritative phenomena of muscle, but there are several difficulties in the way of accepting such an explanation. We would have to assume:

1. That the whole of the right motor cortex is affected with this irritation, all the muscles of the left half of the body being involved.
2. That the irritation has lasted for three and a-half years without undergoing any material change in character or degree.
3. That the irritation has never in any muscle or group of muscles passed, as irritations so often do, into other conditions, such as paralysis.
4. The fact that sudden voluntary action is better performed than slower movement seems to imply that the fault does not lie in the psycho-motor areas or the tracts leading down from them, but rather in some structure affecting the movements in a less direct way.

These considerations seem to me to throw considerable doubt upon, though not to disprove, the view that the cortical cells are at fault. I think that they pretty definitely exclude a diagnosis of organic cortical lesion, although not necessarily a functional affection of that area.

Turning now to the *Optic Thalamus* as a possible source of such irritation, the first point in its favour is that other irritative phenomena, such as Athetosis and Hemichorea, occurring in old Hemiplegias are, to say the least, often associated with lesion of the Thalamus, and that presumably in such cases that lesion accounts for the spasmodic contractions, while lesion of the internal capsule or of the cortex accounts for the paralysis. One must admit that we have as yet no adequate explanation of the way in which these lesions produce the movements, although it seems probable that it is by influencing the cortex through fibres afferent thereto, rather than the periphery directly; but the coincidence of the lesion and the symptoms in so many cases cannot be overlooked. It must also be frankly admitted that no case is on record in which lesion of the Optic Thalamus produced irritation phenomena precisely corresponding to that of our patient. Secondly, the fact as to sudden movement, just insisted upon, might perhaps be explained on the supposition that a side nucleus such as the Optic Thalamus came into play and modified the motor action.

4. *Is it in the Cerebellum?*

5. It might be suggested that the cerebellum, or possibly some part of the cerebrum other than those mentioned, might be the seat of morbid action, but I have not been able to lay hold of any facts that would justify or even render probable such a suggestion.

Conclusion.

Thus while I should incline to the Optic Thalamus as a probable seat of disease, I should not venture to give it as a positive diagnosis, but fully admit that the symptoms may originate in the Cortex.

II.—The Nature of the Process.

Turning now to the question of the nature of the process, the first point I like to settle always is

A. The Question of Malingering.

Such a diagnosis seems to me entirely shut out by the facts

1. That the most careful watching of the patient while under my care has failed to discover absence of spasm at any time.
2. That the patient has during the past three years and a half been from time to time under the observation of a number of different members of the profession, and has always exhibited essentially the same symptoms, and never been seen without spasm unless on one doubtful occasion.
3. That a measure of spasm persists during sleep.
4. That the unilateral distribution affecting all the muscles of one-half of the body was in all probability beyond the knowledge or imagination of such a patient.
5. That actual changes in the joints have occurred and are revealed by the skiagraphs.
6. That he was once seen in a state of profound intoxication, and that the spasmodic contraction remained unchanged.

These considerations satisfy me that he is not malingering.

B.—Is it Functional?

The second question is whether we are to regard it as functional, toxic, or organic. We must consider first whether it is of that kind of functional disease which may properly be called hysterical.

1. *Is it Hysterical-Functional?*—The fact that he has had two attacks of insanity manifestly implies instability of the nervous system, and his constitution strong and vigorous as it is, seems not incompatible with hysteria. But while these considerations deserve a certain amount of weight they are by no means conclusive, and we ought not to yield to the temptation to call a thing hysterical simply because it presents out-of-the-way nervous features which we find it difficult to explain.

The complete disappearance under chloroform and the partial disappearance during sleep might be regarded by some as strongly favouring such a diagnosis. But I have found that in Spastic Paraplegia and in post-hemiplegic spasm, which are undoubtedly due to organic lesion, that when the patient is brought fully under the influence of chloroform the muscles become lax, and the deep reflexes disappear. I cannot, therefore, accept the chloroform or sleep argument as conclusive.

In regard to the electrical reactions, while it cannot be denied that they are compatible with a diagnosis of hysteria, no one could assert that they are characteristic of it, and for myself I should incline to regard the evidence as negative, unless I had demonstration, which I do not possess at present, of such electrical aberrations occurring in cases of indubitable Hysteria.

Perhaps the strongest point in favour of a diagnosis of Hysteria is the character of the ankle clonus. It is not of the ordinary kind occurring in organic disease, beginning with depression of the toes, but of the rarer variety seen in hysterical conditions, when the first movement is made by the anterior muscles of the leg. But the symptom is only rarely to be elicited, and is even when present far from being well pronounced; and I think that altogether it does not constitute a strong piece of evidence as to the nature of the case.

Then, against the hysterical hypothesis, there are the very important facts that the patient has remained with one symptom only for three years and a-half, that it took origin during typhoid, and that there never has been the slightest trace of other hysterical symptom, or, indeed, of any nervous symptom in any part of his body except the attacks of insanity, and that these attacks did not in any way modify the motor phenomena which we are studying.

2. *Is it Non-hysterical Functional?*—As an example of such a malady, I quote the case of a patient whom I saw frequently, a boy, aged 15, of a nervous and rheumatic constitution, who had suffered a good deal from Asthma as well as Pneumonia and Acute Rheumatism. After one of his rheumatic attacks he was taken with rather severe chorea, and as the chorea passed off it was noticed that he held his head in a peculiar position, twisted and partly to one side. It was feared by the surgeons in attendance that there might be disease of one of the upper cervical vertebræ. But there was no definite evidence of this. He was carefully treated by constant extension with weight and pulley, but the muscle, on the whole, held its own and resumed the abnormal attitude as soon as set free. The boy never showed a trace of hysterical tendency. At last it was suggested by Professor Ferrier, after the condition had persisted many months, that profound narcosis with chloroform should be induced. As soon as he was fairly under, the spasm relaxed, and the boy on awaking was free from it, and never had the slightest recurrence. That is a typical instance of a non-hysterical, but still functional, disease. If our patient's case is functional I should refer it to this class. But its behaviour under chloroform and other modes of treatment is very different from that seen in the case of the boy just quoted.

C. TOXÆMIA.

It might be suggested that the symptoms are caused by some toxic material acting upon the brain. This suggestion seems to me to have practically nothing in its favour. It is impossible to conceive that a poison should be generated continuously for three and a-half years, that a poison should induce spasm in one-half of the body and in one-half only. The mens medica seems to revolt against such a hypothesis.

D. ORGANIC.

It may be best to review the series of possible organic changes.

1. *Congestion.*—It might be a result of congestion; but a limited congestion of such a kind persisting through so long a period does not correspond to the known facts of medicine.

2. *Inflammation.*—The same argument holds good, with the addition that spasm persisting, as this has done, is not the kind of result that flows therefrom.

3. *Softening*, whether due to a pre-existing inflammation, or to a thrombotic or embolic process, could not remain stationary and active through so long a time, even if it could be supposed that mere softening would induce such symptoms.

4. *Sclerosis.*—If there be organic disease this seems to me the most probable. It is quite conceivable that during the typhoid a degree of thrombosis occurred, and that sclerosis followed in the affected area. Such a change would be necessarily permanent, and might be arrested and remain limited. I fail to discover anything justifying the absolute exclusion of this suggestion, although it could not apply to a lesion of the cortex, and could not be more than suggested as a possible lesion of the Optic Thalamus.

5. *Tumour.*—There can be little reason for suggesting a lesion of this kind in the case; for there are neither eye changes, headache, or other symptoms pointing to a lesion of the kind, and a tumour remaining practically stationary for three and a-half years, producing the same symptoms all the time, is not to be conceived.

Conclusion.—On the whole, then, without in the least desiring to dogmatise on the matter, and sitting quite loose to the hypothesis, I would suggest as the most probable diagnosis either sclerosis following upon thrombosis affecting the right optic thalamus, or a non-hysterical functional condition of the whole right psycho-motor cortex, or of the grey matter of the right Optic Thalamus.

TREATMENT.

Meanwhile, whatever the true pathology of the case may be, we must do what we can in the way of treatment.

It may be well, although there is no history of syphilis, to give potassium iodide a thorough trial, knowing, as we do, that it sometimes proves of unexpected value in obscure cases.

I cannot but hope that as we possess in chloroform a remedy capable of controlling spasm, while at the same time widely affecting the nervous system, we may one day discover a drug or drugs which shall be able to influence spasm without involving the nervous system in other important particulars. Unfortunately we are not yet acquainted with any remedy of such a kind, but I purpose to try any medicines which promise an approach to a fulfilment of the indication.

Lastly, although I very rarely have recourse to treatment by hypnotic suggestion, I have considered myself justified in trying it in this case. My friend Dr. George Kerr has undertaken to apply the method. I am not able as yet to speak definitely of its results. They certainly are not as marked as they generally are in purely functional cases.

CLINICAL MICROSCOPY AT JOHNS HOPKINS MEDICAL SCHOOL, BALTIMORE, UNITED STATES OF AMERICA.

By WILLIAM OSLER, M.D., F.R.S.,
Professor of Medicine, Johns Hopkins University.

THREE years ago, in the second year of the organisation of the medical school, the clinical laboratory was built, in part by a bequest of $10,000 from friends interested in medical education. It consists of two storeys, each of which has a main laboratory floor 64 feet by 20 feet, with windows on either side, and accommodation in each for 60 students. There are six smaller rooms for the assistants and for private work. One laboratory is exclusively for the third-year, the other for the fourth-year, students. Before proceeding to speak of the classes, I may refer to the organisation of the medical service of the hospital. There are four more or less permanent officers: a first assistant or resident physician, with two juniors, one of whom takes charge of the private ward, the other of the bacteriology of the service; and a physician in charge of the clinical laboratory. The permanency of these officers is of the greatest advantage to the service. Since the opening of the hospital nine years ago I have had only two first assistants, Dr. Lafleur, now of McGill University, Montreal, and Dr. Thayer, who has been with us seven years. The first assistant gets his quarters and $500 a year from the hospital, and $500 from the medical school for helping with the teaching. He is also allowed the privilege of outside consultation work. These are appointed by the trustees on the nomination of the Medical Board. There are four house-physicians selected each year from the graduating class. The general microscopical and chemical work of the wards is done in three separate rooms under Ward G, the equipment and current expenses of which are paid for by the hospital. The expenses of the clinical laboratory are met by the medical school.

The work of the third year in medicine consists of (1) an out-patient class from 12 to 1 three times weekly. Adjoining the medical dispensary is a class room accommodating 50 students. I take charge of this class, in which are considered the objective features of disease as illustrated in select cases. (2) On Wednesday, at 12, I hold a set clinic in the amphitheatre, at which both third and fourth-year students attend. (3) Twice a week for two hours Dr. Thayer takes the class in physical diagnosis. (4) On Monday and Friday, from 2 to 4.30 P.M., Dr. Futcher meets the class in clinical microscopy. It may be well to state here that our classes are as yet small, and as the students enter the school with laboratory training in both biology and chemistry, they are able to take pathology and bacteriology in the second year, so that they have an excellent preparation for the clinical microscopy.

The microscopes and reagents are provided, each student paying a rental of $5 a year for the microscope.

Synopsis of Course on Clinical Microscopy.

The course begins on October 1st, and continues throughout the academic year (to June 1st). Two laboratory classes of two and a half hours duration are held weekly. In addition, a one hour's recitation on the work already taken up is held each week. The course includes a thorough study of the blood, urine, sputum, gastric-juice, and fæces, and other specimens of importance occurring in the wards from time to time.

A. The Blood.

I. Consideration of the various views held concerning the origin of the red blood cells and leucocytes during intrauterine and extrauterine life.

II. Examination of fresh specimens of normal blood: (*a*) Study of the normal red cell, and the changes it may undergo owing to improper manipulation; (*b*) study of the various types of leucocytes in a fresh specimen of normal blood; (*c*) study of blood platelets in normal and diseased blood.

III. Methods of counting the red and white corpuscles, with the Thoma-Zeiss blood counters, including the use of the hæmatocrit.

IV. Methods of determining the hæmoglobin: (*a*) Von Fleischl's; (*b*) Gowers's.

V. Demonstration of methods of determining the specific gravity of blood: (*a*) Schmalz's: (*b*) Hammerschlag's.

VI. Method of taking the coagulation time of the blood by Wright's tubes

VII. Ehrlich's method of blood examination by study of dried specimens; (*a*) Fixing of specimens: (1) By heat, on a copper bar or in thermostat; (2) by alcohol and ether in equal parts. (*b*) Staining of dried specimens to show the various elements of the blood which have an affinity for acid, basic, or neutral dyes: (1) Specimens stained with eosin; (2) methylene blue; (3) dahlia; (4) eosin and methylene blue together; (5) Ehrlich's triple stain; (6) Neusser's modification of Ehrlich's triacid mixture to show perinuclear basophilic granules.

VIII. Examination of blood for malarial parasites: (*a*) Fresh blood, to show the various stages of development of the tertian, quartan, and æstivo-autumnal parasites; (*b*) permanent specimens stained in eosin and methylene blue to show the same.

IX. Demonstration of filaria sanguinis hominis in fresh blood.

X. Study of the leucocytes, with permanent specimens: (*a*) physiological; (*b*) pathological.

XI. Study of the bone marrow, spleen, and lymphatic gland, with especial reference to the origin of the red and white corpuscles, and to the regeneration taking place after hæmorrhages and in grave anæmia.

XII. Study of the various varieties of anæmia, with permanent specimens: (*a*) Primary anæmia: (1) chlorosis; (2) progressive pernicious anæmia; (3) leukæmia. (α) spleno-myelogenous, (β) lymphatic; (4) pseudoleukæmia. (*b*) Secondary anæmia: (1) following hæmorrhage, (2) following malignant diseases, (3) following malarial infections.

XIII. Consideration of the blood changes in: (*a*) Various infectious diseases—diphtheria, measles, scarlet fever, typhoid, tuberculosis, etc.: (*b*) syphilis; (*c*) nephritis; (*d*) diseases of the heart; (*c*) pneumonia; (*f*) trichinosis.

B. The Urine.

I. Theories of the excretion and secretion of urine.

II. Physical examination of the urine. Full consideration of the features to be noted under this heading.

III. Chemical examination of the urine: (*a*) *Organic constituents*: (1) Tests for the various proteids and proteoses in the urine, including (α) albumin, with methods for quantitative determination, (β) peptone, (γ) fibrin, (δ) mucin, (ε) albumoses, (θ) hæmoglobin. (2) Tests for the different varieties of sugars, including methods for the quantitative estimation of sugar. (3) Organic substances which may reduce copper solutions and simulate glycosuria, as homogentisinic acid (alkaptonuria) and glycuronic acid. (4) Tests for acetone, diacetic acid, and β-oxy-butyric acid. (5) Colouring matters: normal: (α) urobilin, (β) urine indican; abnormal: (α) colouring matters of the blood. (β) pile pigments, (γ) vegetable colouring matters. (6) Leucin and thyrosin and xanthin. (7) Urea, qualitative and quantitative determination of. (8) Uric acid. (9) Method of estimating total nitrogen in the urine by the Kjeldahl process. (10) Krüger and Wullf's method of estimating the alloxuric bodies in the urine. (*b*) *Inorganic constituents*: (1) Chlorides, quantitative and qualitative determination of. (2) Phosphates: (α) earthy, qualitative and approximate quantitative determination of; (β) alkaline; quantitative estimation of total phosphoric acid. (3) Sulphates, qualitative and approximate quantitative determination of.

IV. Miscellaneous tests: (*a*) For Ehrlich's diazo-reaction.

V. Consideration of the toxicity of the urine.

VI. Microscopical examination of urinary sediment: (*a*) Unorganised deposits, including crystalline and amorphous deposits; various microchemical tests for purposes of differentiation. (*b*) Organised deposits, including anatomical elements as epithelial, red blood and pus cells, false and true tube casts, etc. (*c*) Staining for tubercle bacilli; methods recommended for differentiation from smegma bacilli. (*d*) staining for gonococci.

C. The Sputum.

I. General considerations regarding collection of and prevention from contamination.

II. Information obtained from a macroscopical examination of the sputum.

III. Microscopical examination of buccal secretion.

IV. Microscopical examination of sputum. Examination for (*a*) red blood and pus cells, including eosinophilic cells. (*b*) Epithelial cells. Squamous, ciliated and alveolar epithelial cells. Study of the myelin degeneration of the latter, and of the various varieties of pigment they take up giving rise to the different types of "dust cells." (*c*) Elastic tissue; methods of examining for it. (*d*) Curschmann's spirals; (*e*) Fibrinous casts of bronchi. (*f*) Various types of crystals; Charcot-Leyden, hæmatoidin, fatty, etc. (*g*) Examination for amœba coli.

V. Methods of staining for various pathogenic bacteria, tubercle bacilli, pneumococci, etc.

VI. The sputum in the following diseases was studied macroscopically and microscopically: (*a*) bronchitis, various types; (*b*) pneumonia, lobar and acute tuberculous pneumonia; (*c*) pulmonary tuberculosis, various stages; (*d*) asthma; (*e*) bronchiectasis; (*f*) hepatic abscess opening into bronchus, with examination for amœbæ coli, etc.; (*g*) pneumonokoniosis.

D. Gastric Juice.

I. General consideration of the anatomy of the stomach and the physiology of gastric digestion.

II. Consideration of the normal constituents of the gastric juice.

III. Various forms of test breakfasts.

IV. Method of removing the gastric contents with a practical demonstration. Amount and appearance of contents in healthy digestion.

V. Chemical examination of gastric contents: (*a*) Reaction to litmus; (*b*) Tests for free acids; (*c*) Tests for free hydrochloric acid; (*d*) Tests for lactic acid: (*e*) Tests for butyric and acetic acids; (*f*) Quantitative estimation of total acidity; (*g*) Estimation of free hydrocloric acid; (*h*) Tests for pepsin, pepsinogen, and rennet; (*i*) Test for starch and its derivatives.

VI. Microscopical examination of gastric contents: (*a*) For food detritus; (*b*) For blood, or portions of mucous membrane and malignant growths; (*c*) For sarcinæ and other vegetable growths.

VII. Method of determining the absorptive and motor power of the stomach.

VIII. Changes in the gastric juice occurring in various systemic and local diseases of the stomach: (*a*) Chlorosis; (*b*) Neurasthenia; (*c*) Gastritis, acute and chronic; (*d*) Atrophy of the mucosa; (*e*) Carcinoma of the stomach; (*f*) Ulcer of the atomach; (*g*) Dilatation of the stomach.

E. The Fæces.

I. Macroscopical examination. Effects of medicinal agents on the colour, etc.

II. Microscopical examination: (*a*) Food *débris*: (*b*) Red blood and pus cells; (*c*) Intestine epithelial cells; (*d*) Amœbæ coli; (*e*) Differentiation of amœbæ coli from trichomonas and cercomonas intestinalis, paramœcium coli and monads; (*f*) Examination of fæces for tubercle bacilli; (*g*) Various forms of crystals.

III. Intestinal parasites. These were fully dealt with by Dr. Stiles in his lectures on animal parasites, when a large number of parasites were demonstrated. Dr. Stiles also gave four laboratory demonstrations. Trichinæ in the muscles, adult male and femalæ trichinæ in the rat's intestine, various forms of eggs, etc., were demonstrated. Class received permanently-stained specimens of tæniæ illustrating the solium and saginata types.

IV. The special features of the stools in various diseases are dealt with.

F.

Specimens of interest from ward cases not coming under the above headings are demonstrated to the class from time to time.

Fourth Year Work in Clinical Microscopy.

A place in the laboratory is set apart for each fourth-year student. No systematic instruction is given, but the clinical clerks and surgical dressers make here the special examinations, cut sections (under Dr. Futcher's direction), and use the laboratory for general purposes. Some of them are able to carry out research work. The studies of MacCallum and Opie on the hæmatozoa of birds, MacCallum's studies on the flagellate forms of the malarial organism, T. B. Brown's work on *Trichinosis* illustrate the character of the work which the senior students can do.

REMARKS ON TWO CASES OF GANGRENE OF THE LUNG.

By BYROM BRAMWELL, M.D., F.R.C.P.Edin., F.R.S.Edin.,
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With a Surgical Report on One of the Cases

by
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Case I.—*Gangrenous Inflammation of the Lung, apparently due to the Rupture of an Ulcer of the Stomach into the Lung; Immediate Improvement under Rectal Feeding; Recovery.*—At first sight it was very difficult to explain the clinical phenomena which this case presented, but I am disposed to think that the gangrenous condition of the lung which seemed to be present was the result of the perforation into the thoracic cavity of an ulcer in the upper wall of the stomach, the production of a localised cavity containing fœtid contents in connection with the ulcer, and the sudden rupture of the contents of this cavity into the lung tissue or bronchial tubes. This theory is strongly supported by the remarkable improvement which took place immediately rectal feeding was commenced. The notes of the case are as follows:

Mrs. McG., aged 28, was admitted into the Edinburgh Royal Infirmary on October 9th, 1895, suffering from cough and the expectoration of a large quantity of very foul-smelling sputum.

Previous History.—The history which we obtained was that the patient, whose home was comfortable and surroundings healthy, had suffered from measles and bronchitis in childhood, and pleurisy at the age of 17; that she had been married for seven years; and that during the whole of this time she had enjoyed excellent health, never having been troubled with any symptoms indicative either of disease of the lungs or stomach. The illness for which she was admitted commenced on October 1st, 1895, about ten days before admission. As I have already stated, she was up to this time feeling perfectly well, eating as usual, doing all her household work, not coughing, nor short of breath, and not feeling anything amiss with her digestion or stomach.

On the night of October 1st she went to bed at 10 P.M., feeling in her usual condition of good health. About 11 P.M. she was wakened by one of her children moving. She got up, walked hurriedly across the floor, and, when bending over the child, suddenly felt a sensation as if something had given way in the lower part of the chest on the left side. This was immediately followed by a sensation of hot gas coming up into the mouth, and by an extremely bad taste in the mouth. She then began to cough, and immediately expectorated a considerable quantity of liquid material, which was almost black in colour and of an extremely fœtid odour. During the night she had two or three other paroxysms of coughing, and on each occasion she expectorated a considerable quantity of the same fœtid material. At first the cough was unattended with pain, but a few days after the onset of the illness she experienced a catching pain in the left side, which was aggravated by coughing. She has continued to cough and expectorate ever since. The sputum has become lighter in colour, but has always had an extremely bad taste and smell. On October 5th and 6th she expectorated a very large quantity of this foul-smelling frothy material. Since her illness commenced she has become weak and unfit for work. She states that she has never felt feverish, but has on several occasions suffered from cold sweats; her appetite has been very poor.

The morning before she was admitted into the infirmary the sputum was very black.

The family history is quite unimportant. So far as she knows none of her relations have suffered from any lung disease.

State on Admission.—The patient is a well-developed and well-nourished woman. The face is somewhat florid. Temperature 100° to 101°, pulse 84.

Respiratory System.—The respirations number 26 per minute. She states that she can lie in any position, but that the catching pain in the left chest is aggravated when she lies on her right side. When lying on the back or left side she does not feel short of breath; when she turns on to the right side she becomes short of breath, and has a fit of coughing. She is troubled with a frequent cough. The sputum is copious, very foul-smelling, frothy, somewhat brown in colour. The chest is well formed. The breathing is chiefly diaphragmatic, thoracic expansion being shallow, more especially over the lower part of the left chest, where the expansion is much less free than the corresponding part of the right chest. The vocal fremitus is normal, except in the left infra-axillary regions, where it is markedly diminished in intensity—in fact, almost absent. The percussion note is normal over the whole of both lungs, except in the left inframammary and left infra-axillary regions, where it is slightly impaired. Over the right lung and over the upper part of the left lung the breath sounds are normal, except for the presence of occasional high-pitched rhonchi and a few fine crepitant *râles* with inspiration. Over the lower part of the left chest, anteriorly, laterally and posteriorly, coarse friction, especially marked at the end of inspiration, is heard.

Circulatory System.—A well-marked, somewhat rough systolic murmur is audible in the mitral and tricuspid areas. The second sound is accentuated and occasionally reduplicated.

Alimentary System.—The appetite is poor, the tongue somewhat furred. There is no complaint of pain or uneasiness after eating, and there has been no vomiting. The stomach, liver, and spleen appear to be normal in size.

Urinary System.—The urine is dark in colour and loaded with urates. It contains neither albumen, blood, sugar, nor bile.

Treatment.—Intralaryngeal injections of a 10 per cent. solution of menthol in olive oil, and boracic acid and sulphate of quinine internally were prescribed.

Diagnosis.—Such was the condition of the patient on admission. The diagnosis was difficult. There was, of course (1) dry pleurisy involving an extensive area of the left pleura and (2) a fœtid cavity, either bronchiectatic or gangrenous, in the left lung. The extremely foul character of the sputum and its copious frothy character showed this. Bronchiectasis seemed to me to be excluded for the following reasons: (1) The patient had not suffered from bronchitis; and, up to the time of the occurrence of the rupture into the bronchial tubes of the fœtid gas and fœtid sputa, had not previously been troubled with cough or expectoration; (2) marked constitutional symptoms—fever, debility, etc.—were present; and (3) there was extensive dry pleurisy, obviously due to the same cause as the lesion of the lung itself.

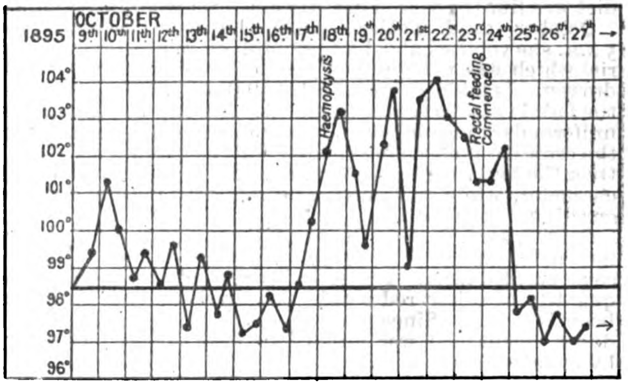
Consequently, having excluded bronchiectasis, we came to the conclusion that the patient was suffering from gangrene, or inflammation of the lung. But gangrene of the lung is very rarely, if ever, developed idiopathically; it is almost always the result either of a pneumonia, or of the introduction into the lung tissue or the terminal bronchi of some septic material, the introduction into the bronchi of food particles, the extension to the lung tissue of a septic inflammation from the wall of a bronchiectatic cavity, the œsophagus, etc.; or compression of the root of the lung (blocking of the bronchi), trophic changes due to pressure on the nerves, septic inflammation in the compressed lungs, etc.

In this case, none of these causes appeared to be at work; the patient was perfectly well up to the time when she suddenly felt something giving way in the lower part of the left chest. This sensation was immediately followed by cough and the expectoration of a considerable quantity of dark and extremely foul-smelling sputa. This rupture was followed, but not preceded, by inflammatory symptoms (fever, etc.), pleurisy, and gangrenous inflammation of the lung.

At this stage of the case, I did not see my way to offer any explanation of the exact mode of causation of the attack—that is, the nature of the rupture; but the course of the case threw considerable light upon this point. The progress of the case was as follows:

October 11th. The patient is feeling much better to-day; has coughed very little; the sputum is not so dark in colour.

October 15th. The temperature is not so high (see chart). The sputum, though still very copious, is less dark in colour and less fœtid in odour. The cough is still at times very troublesome. The patient says that she feels fairly well, and that the bad taste in the mouth is not so marked.



Temperature chart in the case of Mrs. McG., showing the course of the temperature for the first three weeks after admission to hospital.

October 17th. The cough and expectoration are still very troublesome in the morning; the sputum is less dark in colour, and less offensive. On microscopical examination my house-physician, Dr. Henderson, detected some starch corpuscles in the sputum. On the evening of this day the temperature, which since the 12th has been normal, began to rise; at 7 P.M. it was 100°.

October 18th. At 3.30 A.M. there was an attack of copious hæmoptysis; and at 8 A.M. a second attack, the bleeding being still more copious; temperature 102°, pulse 112. At 11.30 P.M. the patient stated that she felt rather better than she had done during the previous night. The evening temperature was 103°, and the pulse 96.

On October 19th the patient was rather better, the temperature falling.

On October 20th she was still spitting a little of the foul-smelling sputum, and in addition a good deal of dark blood, chiefly liquid, but partly composed of small clots, which had apparently been lying in a cavity. On the evening of this day the temperature went up to 104°, and the patient complained of feeling very sick. She vomited a teacupful of dirty brown, hare-soup-like liquid, which was, however, free from odour. The vomiting was not preceded by coughing. Since yesterday afternoon the patient has complained of an itchy feeling in her arms and legs; this afternoon a dull, red, papular eruption, which in places was almost confluent, appeared on the arms and legs, and to a slight extent on the trunk. With the appearance of the eruption the itchiness disappeared.

October 21st. The eruption on the legs, forearms, and face is still very marked; it is very symmetrical in its distribution. The papules, especially on the face, are more confluent and of a duller red colour than they were last night. The cough has been very troublesome this morning, and the patient has expectorated a large quantity of brownish, frothy, blood-stained fluid, having a foul smell. She has also vomited a considerable quantity of brownish, clear fluid containing some curds of milk. At 5 P.M., during a fit of coughing, the patient brought up half a teacupful of dirty brown fluid with an offensive odour, followed by some dark frothy blood. So far as could be judged, this material came from the stomach. The patient states that she feels "a rattling in the left side of the chest when she coughs." The physical signs are as follows: The condition of the right chest is normal, the breathing harsh, vesicular, the expiration prolonged, no accompaniments. On the left side, below the second rib, the percussion note seems to be slightly duller and higher pitched than normal; above the second rib it is normal. Above the second rib the breath sounds are harsh, the expiration prolonged and accompanied by some snoring rhonchi. From the second to the sixth ribs the inspiration is blowing and whistling in character, expiration high pitched, markedly prolonged, and accompanied by numerous chirping *râles*, coarse and medium in size, and by snoring rhonchi. The diet was limited to iced beef-tea and iced peptonised milk.

October 22nd. Patient much the same to-day. About 5 A.M. she vomited about a teacupful of reddish-brown material which was not fœtid in character. Has been somewhat drowsy. Is taking a good deal of iced milk. The eruption on the face is now so confluent that it has the appearance of a uniform dark purple blush. Over the limbs, legs, and trunk the eruption is also more copious, but the papules are discrete. Over the lower part of the left chest, inspiration is blowing in character, while expiration is completely masked by coarse gurgling crepitations.

October 23rd. During the night the patient vomited about half a teacupful of dirty, brownish-green fluid containing some curdled milk. This morning she spat up a considerable quantity of bright red blood. The erythematous rash on the body is fading. Since even the iced milk and beef-tea produced sickness, it was decided to feed the patient entirely by rectal enemata.

October 24th. Patient has had a good night, and is feeling much better this morning. The cough has been much less troublesome. She has not vomited since yesterday afternoon, when the rectal feeding (consisting of peptonised milk, meat juice, egg, with thirty minims of laudanum) was commenced. Has been able to take her medicine by the mouth this morning without any sickness. The erythematous rash has almost disappeared. The tongue is much cleaner, and the temperature has fallen somewhat.

October 25th. The patient is very prostrate this morning, having had an attack of diarrhœa during the night. She feels very drowsy, headachy, and inclined to sleep. The rash has entirely disappeared. The cough has not been troublesome, and there has been very little expectoration and no vomiting. The tongue is fairly clean. The temperature has suddenly fallen to below the normal, 97.8° (see chart), pulse 84. The urine contains a trace of albumen and bile. At 2 P.M. the patient vomited a teacupful and a-half of clear, colourless fluid, which was acid in reaction and which contained some brownish masses. At 7 P.M., after a drink of water, the patient vomited two teacupfuls of clear watery fluid, acid in reaction. Is still somewhat drowsy, but looks and feels better. During sleep the breathing is slow, 16 to 18 per minute.

October 26th. The patient feels fairly well, but is dull and drowsy. She slept pretty well during the night, and coughed very little. She expectorated a small quantity of dark, reddish-brown sputum, having a bad odour. This morning, after taking her medicine, she again vomited about half a teacupful of clear, watery fluid without any bad odour. The physical signs are as follows: Over the left chest, from the clavicle to the fifth rib, the respiration is blowing and bronchial in character; this is especially marked between the second and fifth ribs and in the lateral aspect of the chest. Inspiration, but especially expiration, is attended with numerous medium-sized and coarse crepitations having a tinkling character, and also with numerous purring and snoring rhonchi. Below the fifth rib the breathing is harsh, the expiration prolonged, and there is coarse pleuritic friction. The urine still contains albumen and bile.

October 28th. Lips and tongue dry. Distinctly jaundiced. Expectoration much less copious, scarcely a dessertspoonful in the twenty-four hours, thick, muco-purulent, and slightly blood-tinged. When the patient coughs the odour of the breath is still very offensive. Albumen and bile in considerable amount are still present in the urine.

October 31st. Patient slept well last night. Lips and tongue moist; tongue clean; still markedly jaundiced. The urine contains bile and a trace of albumen. Fæces very fluid, pale, just like potato soup, with very offensive odour. Has coughed very little, and has scarcely expectorated at all. The sputum is much less offensive, but the breath after coughing is still very offensive. Twenty drops of laudanum to be added to each enema.

November 1st. The patient still complains of difficulty in lying on the right side; turning to the right side still causes coughing.

November 2nd. After a fit of coughing yesterday, the patient vomited a cupful of clear watery material containing some mucus, curdled milk, and a small quantity of blood.

November 5th. Jaundice less marked. On account of the irritability of the bowel the rectal feeding had to be stopped yesterday. To-day the patient is taking peptonised milk and beef-tea by the mouth without any feeling of sickness.

November 6th. The apex beat of the heart is situated between the fourth and fifth ribs an inch and a-half outside the sternum. The murmurs have disappeared.

November 9th. Still improving. Is coughing very little. The sputum is very small in amount and has almost entirely lost its fœtid character. The patient, however, still complains of a bad taste in the mouth after coughing. Jaundice almost gone. The urine now contains only a trace of bile.

November 14th. There has been a slight rise in temperature in the evening. Yesterday morning after a fit of coughing she felt a bad taste in her mouth and vomited a small quantity of brown-coloured material.

November 17th. The patient was up for a short time yesterday and again to-day. Yesterday and to-day she had fish for dinner and a light-boiled egg and toast for tea. On the evening of this day the temperature rose to 102°, apparently either the result of the exertion of getting up or the more liberal dietary. To be kept in bed and on milk diet.

November 19th. The patient says that she feels a great deal better. Slept well. Tongue clean. The pleuritic friction has entirely disappeared, and the respiratory murmur is now natural over the whole of the left chest. There is no tenderness in the epigastrium. No expectoration. No cough.

November 25th.—The patient remained in bed from the 17th to the 22nd. She was then again allowed to get up.

After this date she made an uninterrupted recovery, the temperature, pulse, and respirations being normal.

She was discharged on December 7th feeling perfectly well in every respect, though still somewhat weak.

REMARKS.

From the detailed account of the progress of the case it will be seen that on the evening of October 17th the temperature, which had previously been subnormal, began to rise. This rise in temperature was followed by the occurrence of copious hæmoptysis. For several days the temperature remained high. During this period an erythematous eruption, evidently due to some form of intoxication, developed, and the patient frequently vomited, the vomited matter on several occasions being brown in colour and containing blood. The irritability of the stomach was so urgent that rectal feeding was commenced. After this, immediate improvement occurred; the vomiting ceased, the temperature suddenly fell, the cough became much less urgent, the expectoration much less copious and less fœtid in character.

The fact that immediate improvement, both in respect to the local (lung) symptoms and the general condition (fever, etc.), resulted as soon as the rectal feeding was commenced throws important light upon the nature of the case, and explains, I think, the manner in which the gangrenous inflammation of the lung was developed.

The only theory which seems to me to satisfactorily account for all the facts of the case is the following: That there had been a latent ulcer in the upper wall of the stomach which had formed adhesions to the diaphragm, and had perforated into the thorax; that a localised cavity, the contents of which were fœtid, had been formed above the diaphragm in connection with this ulcer; that under the effort of suddenly bending forwards this cavity had ruptured into the lung and bronchi; that a localised gangrenous inflammation of the lung with pleurisy had followed; that the introduction of food into the stomach had kept up this irritation and inflammation; and that as soon as the rectal feeding was commenced and the sources of irritation were removed, the intoxication and gangrenous inflammation of the lung had gradually subsided; that the papular erythema, the jaundice and albuminuria were the result of intoxication—the absorption of some poisonous product from the gangrenous cavity.

In confirmation of this view, it is interesting to note that on several occasions the vomited matter, although it was not fœtid, yet resembled the sputa in its other characters; that the vomited matters on several occasions contained blood or blood clots; and that on one occasion at least, before any stomach symptoms were complained of, Dr. Henderson detected starch corpuscles in the sputa.

I cannot explain the facts of the case on any other supposition than that advanced above. The great objection to this theory is that up to the time of the occurrence of the rupture, and indeed for some time afterwards, there were no stomach symptoms; but this objection is not conclusive. I have met with several cases of ulcer of the stomach in which there were absolutely no stomach symptoms until a copious hæmatemesis suddenly occurred. In one of these cases the patient had, a year previously, suffered from all the characteristic symptoms of ulceration of the stomach, including hæmatemesis. This patient remained absolutely free from stomach symptoms for a year, and during this time she was constantly and actively employed as a domestic servant in the family of a skilled observer, a medical man. She was then suddenly again attacked with profuse hæmatemesis.

Further, it is well known that an ulcer situated on the upper surface and at the cardiac end of the stomach is more frequently latent than an ulcer in the usual position—that is, in the neighbourhood of the pyloric orifice. I am, too, disposed to think that an ulcer of the upper surface of the cardiac end of the stomach, which had formed adhesions to the diaphragm, would be more likely to be unattended with symptoms than an ulcer which was free; but I speak with hesitation on this point.

CASE II. *Large Gangrenous Cavity in the Lung: Incision: Drainage: Recovery.*—This case is of great interest from the large size of the gangrenous cavity, the difficulty in accounting for its formation, and the very successful result of the surgical treatment. The notes are as follows:

MEDICAL REPORT BY DR. BYROM BRAMWELL.

G. T., aged 40, a ship's captain, was seen with Dr. Smith of Leith on February 20th, 1897, suffering from gangrene of the lung. The patient and his wife gave us the following account of the previous history:

Previous History.—A year ago the patient was a good deal troubled with his stomach. At that time he suffered from severe pain after taking food, and occasionally vomited, but never vomited blood or "coffee grounds." With this exception he enjoyed good health until his present illness commenced three weeks ago.

On January 27th, 1897, the patient left Leith for Middlesbrough in command of his steamship. He was on the bridge all night. Shortly before getting into Middlesbrough he was seized with pain in the abdomen; he described the exact position as "the middle of the stomach." The pain was so severe that he took three doses of laudanum (25, 20, and 15 drops respectively). On arriving at Middlesbrough he immediately sent for a doctor. He was laid up in lodgings in Middlesbrough for three weeks. The doctor said he had peritonitis and congestion or inflammation of the liver. The patient, however, states that there was not much tenderness on pressure over the abdomen. Soon after the illness commenced he experienced severe catching pains over the region of the liver. He did not, however, feel short of breath until a week ago (the last week he was at Middlesbrough), and he had no cough until after his return to Leith (February 18th). During the first fortnight that he was laid up in Middlesbrough he was feverish; after this the temperature became normal; it rose again above the normal on Sunday last (the first day on which he was allowed to get up). The doctor who attended him in Middlesbrough sent the following note with the patient to Dr. Smith: "Captain T. had a severe peritonitis, which caused me at one time to contemplate laparotomy (as I have little faith in idiopathic peritonitis); however, improvement took place and the idea was abandoned. Subsequently pains occurred over the hepatic region. No pleuritic evidences could ever be detected. Increased dulness and decreased breath sounds are very marked in right chest; I cannot find evidence of effusion. There have not been any pneumonic symptoms throughout. Temperature normal last week; began to rise on Monday, February 15th."

The patient came home to Leith in an invalid carriage on Wednesday, February 17th, and was seen on his arrival by Dr. Smith. The temperature was elevated (102°). The patient was markedly short of breath. There was extensive dulness over the lower part of the right chest.

On Thursday, February 18th, the patient began to cough (there had been no cough previously) and to spit up some very foul-smelling material.

On Friday, February 19th, he spat up large quantities of the same foul-smelling material, the stench of which was so offensive that his wife could hardly remain in the room with him.

Condition on Saturday, February 20th.—When I saw patient on the afternoon of Saturday, February 20th, he was lying on his right side, looking extremely ill. The temperature was 102°, the pulse 110, the respirations (when at rest) 26. He was spitting up large quantities of extremely fœtid sputum having a distinctly gangrenous odour. The abdomen was now perfectly natural in every respect, and was not tender on pressure; no distension. The liver appeared to be of normal size, and was certainly not enlarged downwards. Percussion showed a localised area of hyper-resonance over the front of the right chest; it extended from the second rib above to the fifth rib below; externally it extended to the nipple, and internally to the right border to the sternum. Over this hyper-resonant area harsh vesicular breathing was audible; but on making the patient cough a very distinct succussion shock or sound, highly suggestive of a cavity, was found to be present. Beyond (externally to) the nipple an area of well-marked dulness extended into the mid-axillary region. Over this dull area the breath sounds could not be heard. Posteriorly there was dulness on percussion up to the middle of the scapula. Over this dull area distant bronchial breathing could be heard; a diagnostic puncture which had been made by Dr. Smith over the dull area at the base of the right lung had failed to demonstrate the presence of the fluid. At a localised spot just below the inferior angle of the right scapula very distinct metallic tinkling and a succession sound on coughing were heard. When the patient was turned on to his left side he immediately became very short of breath and began to cough. This procedure (and placing the patient in the sitting position for the purpose of examining the back) produced a notable difference in the physical signs. Over the (formerly) dull area external to the right nipple the percussion note was now resonant, and over the hyper-resonant area between the second and fifth ribs very marked metallic tinkling could now be heard. These facts were independently verified by Dr. Smith.

Diagnosis.—From these physical signs—the extremely fœtid character of the expectoration, the fever, and grave constitutional disturbance which was present—it was obvious that the patient was suffering from pulmonary gangrene, and that there was a large cavity either in the lung or pleura or in both. The exact causation of the gangrene was, however, doubtful. The most likely supposition seemed to me to be either that the case was one of gangrene of the lung following a pneumonia, or that there was a subphrenic abscess, perhaps associated with an ulcer of the stomach, and that the subphrenic abscess had made its way through the diaphragm and produced a localised empyema and gangrene of the lung. Against the latter view were the facts that the onset of the attack had not been preceded or attended by any symptoms distinctly suggestive of ulcer of the stomach, and that the cavity in the lung seemed to be situated too high for a gangrenous cavity due to this cause. Another possibility which was thought of was that an abscess of the liver had perforated into the chest, but there was no evidence of this. The patient had never resided abroad, he had never suffered from dysentery or intermittent fever, and physical examination showed that the liver was not enlarged.

Treatment.—It was agreed to continue the antiseptic inhalations, stimulants, and tonics which the patient was taking, and to send him into the Royal Infirmary as soon as arrangements could be made for his admission, with the object of having the gangrenous cavity incised and drained.

On February 21st Dr. Smith wrote me to say: "The patient's general condition is more satisfactory this morning. Temperature 99.4°; respirations while at rest 18; pulse 102. He had a good night's rest."

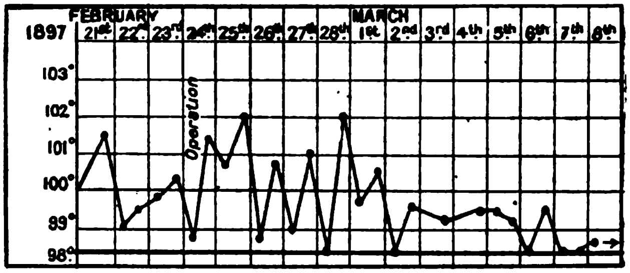
On February 22nd the patient was admitted into the Edinburgh Royal Infirmary under the care of Mr. Cotterill, and immediately after his admission a consultation was held between Dr. Smith, Mr. Cotterill, and myself. The physical conditions were very much the same, except that metallic tinkling was no longer audible. The patient continued to expectorate a large quantity of frothy material, streaked with blood, having a very foul and offensive odour.

February 23rd. The patient had a bad attack of dyspnœa during the night, but is looking better this morning. Temperature only slightly above the normal. Pulse quiet. Still spitting a good deal of foul-smelling material.

Physical signs much the same. The hyper-resonant area extends out as far as the nipple and as low down as the 6th rib (from the 2nd to the 6th ribs), most marked between the 2nd and 4th interspaces. Over this position the vocal fremitus is very marked, and harsh vesicular breathing can be heard. There is to-day no metallic tinkling and much less succussion shock on coughing. It would therefore appear that the opening into the cavity is partially closed, and that a thin layer of adherent lung overlies the cavity.

There is marked dulness external to the nipple. An aspirating needle inserted by Mr. Cotterill into this dull area drew off pus. On turning the patient over on to his left side this dull area becomes quite resonant. There is marked dulness along the spine behind and up to the top of the scapula. Over this area the breath sounds can be heard rather bronchial and harsh in character. The signs of a cavity below the inferior angle of the right scapula are much less obvious to-day.

These physical signs seemed to show that in addition to a large cavity in the lung or pleura or in both, the upper lobe of the right lung was adherent both in front and behind; and further that there was probably some consolidation of the lung, for the breath sounds over the dull area posteriorly were much more marked than one would have expected if the dulness had been merely due to compression of the lung and the presence of pleuritic effusion.



Temperature chart in the case of G. T., showing the course of the temperature before and after the operation.

Surgical Report by Mr. Cotterill.

February 24th. The patient, G. T., having been recommended to my care by Drs. Smith and Bramwell, was operated on to-day.

Immediately previous to operation the pulse was 110 and of small volume, the respirations 24, the temperature 98.8°. The patient looked very ill.

An incision having been made over the seventh rib in the anterior axillary line, I removed about 2 inches of that rib and incised the pleura, which was found adherent and considerably thickened. No fluid escaped at first, though a diagnostic puncture made on the previous day about 2 inches in front of this point had demonstrated the presence of pus. I first passed the finger forwards, but found no fluid; then backwards, when I opened into a large cavity containing clear pleuritic fluid, perfectly odourless. As this cavity was evidently distinct from the one from which I had previously drawn pus with the exploring needle, I passed the finger in a forward and downward direction, and eventually found a swelling at some little distance from my original opening. This swelling being explored with a fine needle was found to contain very fœtid pus. I accordingly passed in sinus forceps along the needle, enlarged the opening, and put in a large drainage tube. The patient then began to cough violently and expelled from the abscess cavity about 8 to 10 oz. of thin, flaky, and extremely fœtid pus, after which the cavity was very gently washed out with warm boracic lotion allowed to flow into it by gentle hydrostatic pressure.

In spite of the view held by some surgeons that washing out of such cavities is attended by great risk to the patient, I am of opinion that no risk exists if the following precautions are taken, namely, the fluid should be some mild antiseptic (not carbolic lotion); it should be warmed to about blood heat; it should be injected slowly and without any force, great care being taken that it runs out as easily as it runs in; and the patient should be rolled over into such a position that it is impossible for a large volume of lotion to collect at one time in the chest, and so by its weight embarrass the heart. If these points be observed it is a perfectly safe proceeding, and is obviously of great advantage in washing away the fœtid contents of such an abscess as this, or even in getting rid, as it often does in cases of empyæma, of large masses of lymph which are apt to block the drainage if left behind.

The fluids I prefer to wash out with are boracic lotion, a solution of creolin, or a solution of izal, the latter of which is a particularly useful deodoriser. As for insufflations of iodoform, which are pretty commonly used, I look upon them as of very doubtful use from the antiseptic standpoint; they possess a fœtor not much pleasanter than that of gangrene of the lung itself, and they are not devoid of the risk of causing iodoform poisoning.

The patient stood the operation fairly well, and the wound had to be dressed every two or three hours. He was extremely weak during the night following the operation, but the next morning (February 25th) he was slightly easier, and was able to take more food than he had been doing. To-day it is noticed that the expectoration is less profuse and much less fœtid.

For the next day or two the patient remained in a very precarious condition, the temperature ranging from normal to 102° F. (see chart); quinine, strychnine, and digitalis were prescribed.

After a while, the patient began to make steady though slow progress, and with the exception of occasional severe attacks of dyspnœa there was nothing of particular note.

On March 2nd it was noted that the expectoration was muco-purulent, much less in quantity, and absolutely odourless.

He was discharged from the hospital on May 18th, having been in the wards just over three months.

He returned on May 28th, when it was found that the wound was firmly healed; the expansion of the lungs was good; there was slight dulness on percussion over an area some 8 inches in diameter surrounding the cicatrix, due to thickening of the pleura. He had put on a great deal of flesh, and was looking in very fair health.

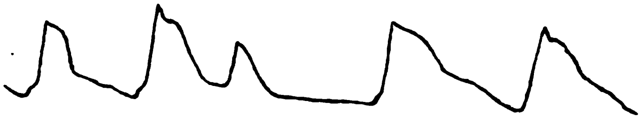
He subsequently went a short sea trip, and returned on June 25th, looking in robust condition.

PULSUS BISFERIENS.

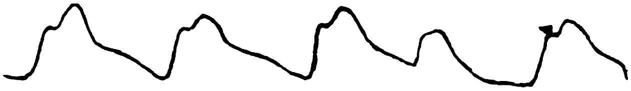
By WALTER BROADBENT, M.D.CANTAB., M.R.C.P.,
Brighton.

WHILE house-physician at Brompton Consumption Hospital three years ago a patient came under my care who presented the curious condition of having a well-marked "bisferiens" pulse on the left side, while on the right the pulse was only that of aortic regurgitation; and since that time I have come across two similar cases, so the condition is apparently not uncommon.

CASE I.—A man, aged 41, who had had rheumatic fever at the age of 16 and again at 20. His radial arteries were large and a little tortuous; the pulse was short and sudden on the right side, but not completely collapsing; on the left side it could be distinctly felt to be double, especially when a little pressure was applied.



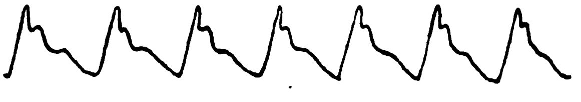
Right Pulse. Case I.



Left Pulse

This state of his pulses was invariably present during his six weeks' stay in the hospital. Three months later he died suddenly. His heart weighed 2 lbs.: both ventricles were greatly dilated and hypertrophied, especially the left. The aortic valve was incompetent and the orifice narrowed, admitting only the tip of a finger; the valves were retracted and rigid. The mitral orifice was also narrowed, admitting one finger easily; its aortic cusp was much thickened and contracted, the other less affected. The aorta was quite normal up to the origin of the left subclavian artery, but just beyond this point was a shallow pocket, the size of a shilling, in the aortic wall, which was here thinned and atheromatous, and from this point a long line of atheroma extended down the left side of the thoracic aorta. Nothing abnormal was found in the carotids or subclavians.

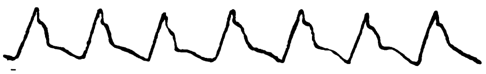
CASE II.—A boy, aged 18, who had had attacks of rheumatic fever at 13 and 16. His radial arteries were larger than in the last case, and they emptied almost completely between the beats; his right pulse was short and sudden, but the left was markedly bisferiens. The left carotid could be felt to be bisferiens, but the right not; a tracing of the right, however, showed an approximation to the bisferiens character. On examining the posterior tibial artery I found the pulse was not bisferiens, and the tracing corresponded to that at the right wrist.



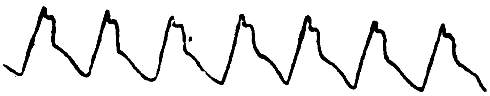
Posterior Tibial. Case II.

This boy died suddenly about a year later; his heart weighed 2 lbs. 1½ oz., both ventricles were greatly dilated and hypertrophied. The aortic valve was incompetent, and the edges of the cusps were thickened, causing slight stenosis; the right posterior cusp had on its aortic surface a calcified prop which kept the cusp stretched across the orifice. The aorta was slightly dilated generally; nothing abnormal was found in the large arteries; the mitral orifice admitted three fingers; the valves were normal; the tricuspid was slightly stenosed, not admitting two fingers its valves were thickened.

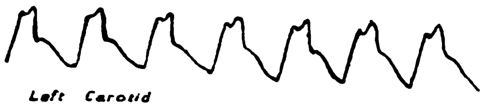
Case II.



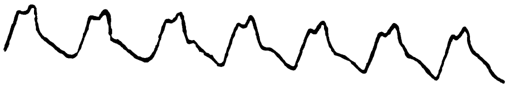
Right Radial



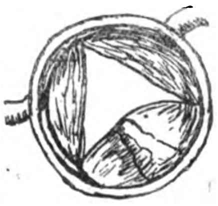
Right Carotid



Left Carotid



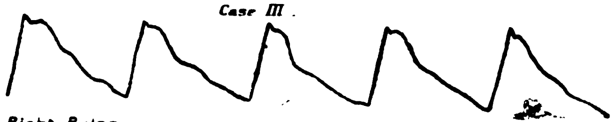
Left Radial



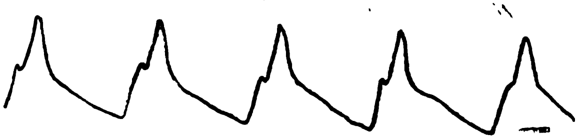
The Aortic Orifice. Case II.

CASE III.—A woman, aged 32, had attacks of rheumatic fever at the ages of 17 and 20. Her radial arteries are larger than normal, and pulsation is visible in them; her right pulse is sudden and moderately collapsing, while the left is strikingly bisferiens to the finger. The left carotid feels bisferiens but the right does not; the dorsalis pedis artery gives a tracing similar to that of the right pulse. Her apex beat is in the sixth space, 1½ in. below and 1 in. external to the nipple. It is powerfully thrusting. At the apex are heard a low rumbling presystolic murmur leading up to a short loud first sound. a systolic murmur, and a diastolic which runs into the presystolic. At the tricuspid area a loud first sound, blowing systolic murmur, a second sound, and a louder and longer diastolic murmur. At the pulmonary cartilage a harsh rough systolic murmur, loud second sound, and a diastolic murmur. At the aortic cartilage a long rough systolic murmur, faint second sound, and a diastolic murmur. In the neck a loud rough systolic murmur and a faint diastolic murmur, no second sound. The amount of hypertrophy of the heart taken with the artery at the wrist, which is only moderately large and does not collapse entirely between the beats, makes it probable that there is in this case also aortic stenosis as well as regurgitation. Previous to these cases I had seen four patients in whom one radial artery gave an anacrotic tracing, but I do not know whether both arteries gave it or whether it was the right or the left; they all had evidence of aortic regurgitation with stenosis, and in one, *post mortem*, the aortic

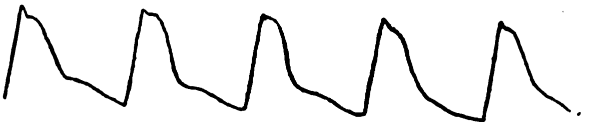
Case III.



Right Pulse

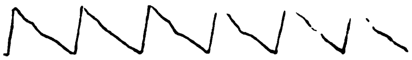


Left Pulse

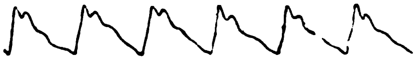


Dorsalis Pedis

orifice was two-thirds occluded by rigid and thickened valves, and there was also mitral and tricuspid stenosis and adherent pericardium; the heart was very large. I give here also the tracings of another case of aortic regurgitation with stenosis, in which there is a striking difference between the two pulse tracings, the left approaching the bisferiens condition, but I was not able with the finger to feel a double impulse.



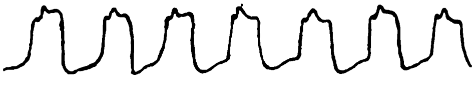
Right Pulse



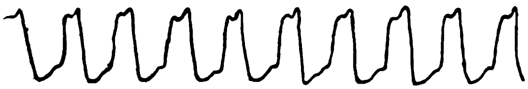
Left Pulse

In the first case the presence of the weakened spot in the wall of the aorta, and the line of atheroma beyond it, taken with the absence of atheroma between the valves and this spot, proved that the main blood stream from the ventricle impinged on this spot close to the origin of the left subclavian, possibly directed by the shape of the contracted valves; and in the second case the rigid condition of the right posterior cusp suggested that the blood stream was similarly directed by the shape of the orifice; but in the third case there is the same condition of the pulses, and it is unlikely that there should be a peculiarity in the shape of the aortic orifice in three cases directing the blood to the same spot, so it may be concluded that it is only the natural direction of the main blood stream (quoted so often as the cause of the greater frequency of cerebral embolism on the left side), accentuated by the increase of the volume of blood driven from the enlarged left ventricle through the narrowed aortic orifice, and it suggests that the anacrotic tracing in the left radial and carotid may approximately represent the intraventricular blood pressure.

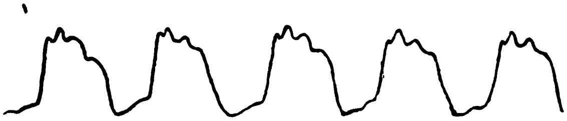
In taking cardiograms of the apex beat in the second and third cases, the notch attributed to the contraction of the papillary muscle does not come after the highest point as in the normal apex beat curve, but I find that this occurs also in other cases of aortic regurgitation, and is probably therefore due to the hypertrophied ventricular wall not attaining its full contraction as soon as usual, or not being so much affected by the pull of the papillary muscles as in the normal heart, the relation of the cardiographic trace to the bisferiens pulse is thus uncertain.



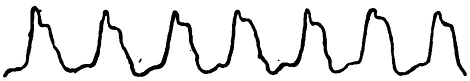
Cardiogram Case II.



Cardiogram Case III.

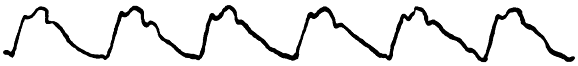


Cardiogram of Case of Aortic Regurgitation



Cardiogram of Normal Heart

Roy and Adami in their investigations on the hearts of dogs[1] found that a rise of peripheral resistance makes the intraventricular curve anacrotic, as if the contraction were reinforced by a renewed effort, and they conclude therefore a corresponding pulse; but in cases of high tension the bisferiens or anacrotic tracing is not found at the wrist, except sometimes in senile degeneration of the arteries.[2] But Roy and Adami took their tracings from the aorta; I have consequently taken a tracing of the pulsation in an aneurysm of the arch of the aorta, as the nearest approach to one taken from the aorta, and find the anacrotic character there, while the pulses do not present it.



Tracing of Pulsation in an Aneurysm of the Aorta.

There is high peripheral resistance in this case, the arteries at the wrists being large and full between the beats. In aortic stenosis and regurgitation increased resistance is given by the narrowing of the aortic orifice, and therefore in all such cases one would expect an anacrotic tracing for the intraventricular pressure. In the aneurysm that tracing appears, and therefore would probably have been found if a tracing of the aorta could have been taken in any of the cases related. It does not occur in either pulse in the case of aneurysm, nor in any arteries in the other cases except in the left carotid and radial. Its presence in them has evidently to do with the direction of the main blood stream on to their points of origin from the aorta; and one must suppose that the elasticity of the walls of the aorta and the eddies of the blood modify the other pulse tracings in some way, just as a normal pulse tracing is very different from the normal curve of intraventricular pressure. When the arterial system becomes degenerate as the result of very long-standing high tension, one would not be surprised to get the curve of intraventricular pressure conveyed in the rigid arteries to the two wrists, and this would explain the occurrence of the bisferiens pulse in senile cases where the arterial tension is still high; and in cases of aortic stenosis supervening on regurgitation, if the arteries had been so damaged as to have lost their elasticity, one would expect a bisferiens pulse in both wrists. I have not had the opportunity yet of investigating whether the anacrotic tracing is often obtained from the pulsation of aneurysms, nor whether it disappears with the lowering of the vascular tension, but if so the anacrotic tracing would be a useful indication of too high pressure in an aneurysm.

The first two cases also had the visible retraction, synchronous with the cardiac systole, of both backs in the region of the eleventh and twelfth ribs, on which sign I published a note in the *Lancet* in 1895, attributing it to adherent pericardium; in neither of these cases was that condition present, though in both cases there were signs of old pericarditis, and I have now seen the necropsies of 4 cases of this sign, in only one of which was the pericardium totally adherent. In all four the heart was much hypertrophied, and adhesion existed between the two layers of pleura in front of the heart. Dr. Kingston Fowler has since pointed out in a case of pyopneumothorax, where portions of ribs had been removed for drainage, that the diaphragm could be seen to be raised at every systole by the normal heart, so that the explanation seems to be that a hypertrophied heart, helped perhaps by adhesion of the pericardium to the chest wall, is able to lift the diaphragm to such an extent as to pull in the lower ribs on each side behind.

Since writing the above my attention has been called to a most interesting paper by Dr. Graham Steell on The Pulse in Aortic Stenosis,[3] in which he describes 6 cases of anacrotic or bisferiens pulse, and concludes that though suggestive of aortic stenosis the condition is not diagnostic. I have differed from Dr. Steell in the use of the terms "anacrotic" and "bisferiens," using the term "bisferiens" when speaking of the pulse, since it conveys the idea of the double effort one feels with the finger in these cases, and the term "anacrotic" as descriptive of the tracing. He does not go into the causation of the pulse, but I think his cases support my theory. His first case had marked aortic stenosis, also incompetence, and as well mitral and tricuspid stenosis and adherent pericardium. The pulse was most commonly rapid (120), and was not then bisferiens, but when it was slowed down by digitalis it became bisferiens. In this case I think the explanation is that, at the rapid rate of heart beat, the left ventricle was not properly filled through the stenosed mitral orifice, that consequently there was not high pressure in it, and thus no anacrotic tracing; the aortic stenosis seems to have been too pronounced for the raising of the peripheral resistance by the digitalis to have had much effect on the intraventricular pressure. The second case had precisely the same condition of heart *post mortem*, the pulse was 50, and the tracing apparently always anacrotic. The third case had marked aortic stenosis, no regurgitation, a much enlarged heart, and constantly showed the bisferiens condition of pulse.

The next case is most interesting; a man of 49, with fibrosed kidneys, marked mitral stenosis, the aortic valves thickened, allowing slight regurgitation, but with absolutely no stenosis; he was first admitted with a bisferiens pulse (64 to 84); the condition of the arteries is not mentioned, but, if they were rigid from the prolonged high tension of the contracted granular kidney, the anacrotic intraventricular pressure curve could reach the pulse. When next admitted the man had pericarditis and heart failure, with a very rapid pulse not giving an anacrotic trace; either the fever of pericarditis had lowered the vascular tension, or else the mitral stenosis prevented the filling of the ventricle at the rapid rate of heart beat, and the intraventricular pressure was lowered, and the pulse therefore not bisferiens.

In none of the above does Dr. Steell state whether the pulse in both wrists gave the same tracing, but his fifth case corresponds to my second in having an anacrotic tracing in the left wrist, but a tracing of aortic regurgitation in the right. There was a large heart—20 oz.—tricuspid regurgitation, mitral stenosis, and very marked aortic regurgitation, the orifice being a thickened ring easily admitting one finger, so that there was no real stenosis, though, as Dr. Steell remarks, the orifice was smaller than normal, while the ventricle was much larger. The patient had, besides rheumatic fever, suffered from scarlet fever, followed by dropsy, 14 years before; the condition of the kidneys *post mortem* is not mentioned, but if diseased the increased peripheral resistance so caused would help to account for the bisferiens pulse. In the last case in the paper both pulses gave anacrotic or bisferiens tracings; the fall between the two cusps in the right tracing is much greater than in the left, so that the bisferiens condition appears more marked in the right pulse than in the left. But the fall before the dicrotic wave is also greater on the right side, and it appears to me that this means that the column of blood is not so well sustained on the right side as on the left, and that the main blood stream is again carrying a truer tracing of the intraventricular blood pressure to the left pulse. In this case there was very marked aortic regurgitation, no definite stenosis, but a very large left ventricle; also parenchymatous nephritis, which by raising the peripheral resistance must have led to the development of the bisferiens pulse. These last two cases also strengthen my conviction that the difference between the right and left tracings, which was present in my cases of bisferiens pulse, will be found to be the rule rather than the exception.

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THE VISION OF SCHOOL CHILDREN.

BY J. ACWORTH MENZIES, M.D.EDIN.,
Rochdale.

IN the BRITISH MEDICAL JOURNAL of June 18th, 1898, Mr. Arnold Lawson has published an Abstract of a Report on the Vision of Children attending London Elementary Schools. The report was the result of an inquiry held at the request of the Education Department, and embraced seven typical elementary schools. In some American cities such an examination is carried out annually under the supervision of an officially appointed oculist. The importance of such an investigation to the cause of education and to parents, teachers, and the children themselves is so obvious that it scarcely requires to be dwelt upon. The headaches consequent on refractive errors, and their disappearance when the errors are corrected are well known, and a diagnosis of stupidity has frequently to be reversed after the use of suitable glasses. As to more remote benefits many a boy would be saved from entering on an unsuitable career if he knew at the outset that for him in the near future spectacles would be a necessity for close work. One frequently meets with cases of men discharged, say, from the railway service, because presbyopic changes, superadded to a congenital hypermetropia, prevent them at a comparatively early age from passing the "dot test." Or it may be a mechanic who loses his employment shortly after completing his apprenticeship, because he cannot do his work efficiently without correcting glasses. In such a case a skilled workman must learn a new trade in which spectacles are no disadvantage, or become a labourer, because he did not discover in time that he was hypermetropic.

The importance of examining the refraction of all children's eyes becomes more apparent when the proportion of cases of defective vision is realised. Mr. Lawson, in 2,014 London children, found only 698, or 34.6 per cent., with normal vision in both eyes. My own examination of 398 Rochdale elementary school children gives 177 normal, or 44 per cent. In addition to these I found 126, or an additional 32 per cent., who would have passed Mr. Lawson's test as normal, that is to say, they read $\frac{6}{6}$ with each eye, but I found on testing with weak convex glasses that they had a small amount (1D or more) of manifest hypermetropia. Allport found out of 25,696 children in the Minneapolis public schools, 8,166, or 32 per cent. defective, but he does not seem to have tested for low degrees of hypermetropia, and probably the percentage of emmetropic children was much lower than 68. Another consideration which makes it desirable that the vision of each individual should be tested at as early an age as is practicable is that a child, or a grown-up person for that matter, may be quite content with defective vision through ignorance that the vision of others is any better than his own. This is the case especially in the minor degrees of astigmatism.

The importance of detecting defective vision early in life is then, it seems to me, sufficiently obvious. The difficulties in the way of doing so are few. The method followed by Mr. Lawson is simple, and easily carried out. If adopted by the managers of schools throughout the country it would mark a distinct advance in the performance of the duties of those who have the care of children.

Early in the present year I undertook the investigation of the eyesight of children in the Rochdale Parish Church School at the request of Archdeacon Wilson. I carried out the entire investigation personally, first testing each eye of each child by means of Snellen's types and trial lenses, and then examining with the ophthalmoscope and retinoscope those whose vision was subnormal.

For convenience I may follow Mr. Lawson's method of classification in tabulating my results, except that I shall group all the cases of astigmatism together. Further, among the cases which I have grouped as hypermetropic some would probably, on careful examination, prove to have a certain amount of astigmatism. The percentage figures are approximate.

TABLE I.—*Normal Vision.*

	Boys and Girls.	Per Cent.	Boys	Per Cent.	Girls.	Per Cent.
Normal vision in both eyes	177	44	96	48	81	41
Ditto but slight Hm...	126	32	45	22	81	41
Defective vision in one or both eyes...	95	24	59	30	36	18
Totals	398	—	200	—	198	—

TABLE II.—*Showing the Various Errors of Refraction and the Relative Frequency of One Form of Error to Another (Cases 221).*

	Boys and Girls.	Per Cent.	Boys.	Per Cent.	Girls.	Per Cent.
Hypermetropia	165	75	66	63	99	85
Astigmatism	40	18	29	28	11	9
Myopia	16	7	9	9	7	6

TABLE III.—*Showing the Relative Frequency of Each Error in all Cases of Normal and Subnormal Vision (Cases 398).*

	Boys and Girls	Per Cent.	Boys.	Per Cent.	Girls.	Per Cent.
Hypermetropia	165	41	66	33	99	50.0
Astigmatism	40	10	29	14.5	11	5.5
Myopia	16	4	9	4.5	7	3.5

I had not an opportunity of using atropine, and so I am unable to give a table to compare with Mr. Lawson's as to the number of cases of hypermetropia of 4 D and over. Thirteen of the hypermetropes, 7 boys and 6 girls, had convergent strabismus, which in 1 girl had been operated on.

With regard to myopia, there were only 3 cases over 3 D.

No.	Sex.	Age.	Myopia.
1	F.	8	4 D, R. and L.
2	F.	12	4 D, R. and L.
3	M.	13	13 D, R. and L.

Included in the above tables are 13 cases of nebula or other opacity of the cornea. This rendered the vision defective, but I ascertained the refraction by retinoscopy. Of these 13 cases, 7 were emmetropic (2 boys and 5 girls), and are included under the normal vision group, 3 were astigmatic (1 boy and 2 girls), 2 were myopic (both girls), and 1 girl had 1D of manifest hypermetropia.

It is interesting to notice that the Rochdale Parish Church School; which is a new building and a model school as regards lighting, fittings and ventilation, yields almost identical results as regards refractive errors with the Stephen Street School examined by Mr. Lawson. In the Rochdale School 177 out of 398 pupils have normal vision, in the Stephen Street School 174 out of 392. The Rochdale School has, however, only 16 cases of myopia, as against 24 in Stephen Street. It is not easy to compare the figures as regards hypermetropia and astigmatism, for my work was done before Mr. Lawson's paper appeared, and I did not think it necessary at the time to separate accurately the cases of moderately high simple hypermetropia from those complicated with astigmatic errors.

Five of the children whom I examined were already provided with glasses. The parents of those not so provided, and whose sight was defective, were informed by letter of the advisability of having suitable spectacles prescribed by a medical man or at an ophthalmic hospital.

The results of my investigation may be interesting as supplementing Mr. Lawson's work with similar statistics from a Lancashire school. I have already referred to the fact that an annual examination of the eyesight of the children attending the elementary schools in some American cities is carried out under the supervision of an "oculist to the Board of Education." An excellent statement of the method followed in Minneapolis will be found in the *Educational Review* for September, 1897, in a paper by Allport, the Board of Education oculist for that city. It is to be hoped that the School Boards of this country will in time follow the enlightened example of those in America.

THE PASTEUR INSTITUTE OF MARSEILLES.—The following statistics relative to the work of the Pasteur Institute from the date of opening (December 9th, 1893) to January 1st, 1898, have recently been published by MM. Livon and Alezaïs:—1893 (22 days): Number of persons treated, 16: no deaths. 1894: Number treated, 268; 3 deaths (1.12 per cent.). 1895: Number treated, 355; no deaths. 1896: Number treated, 249; no death. 1897: Number treated, 318; 2 deaths (0.63 per cent.). This gives a total of 1,206 persons treated, with 5 deaths, a percentage of 0.41.

ON A CASE OF CYSTITIS OF THREE YEARS' DURATION DUE TO THE TYPHOID BACILLUS.

By THOMAS HOUSTON, B.A., M.B.,
Assistant Gynæcologist, Belfast Royal Hospital; Student in Pathology, Royal University of Ireland.
[From the Pathological Laboratory, Queen's College, Belfast.]

A PATIENT suffering from symptoms of cystitis was admitted to the wards of the Belfast Royal Hospital, under the care of Professor Byers. A careful examination of the bladder, kidney, and the uterus having revealed nothing which could throw light on the origin of the cystitis, I was asked by Professor Byers to make a bacteriological examination of the urine.

The urine was of a turbid, opalescent appearance, strongly acid in reaction, and contained a small quantity of albumen. On centrifugalisation, the sediment was found to consist of numerous squamous cells such as are found on the mucous membrane of the bladder, numerous leucocytes with polymorphous nuclei and granular protoplasm (eosinophile and basophile); some bacteria were also recognised in the deposit.

I proceeded to isolate the micro-organism in question, and, suspecting the presence of the bacillus coli communis, I made agar plates with one, two, and three loopfuls of the urine. On the following day the plates showed colonies, all of the same appearance. Nine of these colonies were taken at random, and planted by the stab method on glucose agar, and incubated at 37° C. To my surprise all these colonies grew in an opaque, whitish line exactly resembling the growth of Eberth's bacillus, and without forming any gas. I then planted the bacillus on gelatine, broth, potato-gelatine, agar (stroke culture), potato, and milk. It resembled in every cultural respect the typical bacillus typhosus. Microscopically the bacillus proved to be actively motile, and when stained by both Pitfield's and Van Ermengem's methods showed numerous wavy flagella (12 to 16). A broth culture was kept for six days in the incubator at 37° C., and tested for indol, but gave no reaction. The original milk culture was kept more than two weeks in the incubator, and showed no sign of coagulation; while the gelatine stroke culture has now been kept for four weeks, and there is no liquefaction. Thus in all respects microscopically and culturally the bacillus isolated is the bacillus of Eberth.

The patient's blood was also examined. It was taken in the usual way, and with the bacillus isolated from the urine gave a well-marked agglutinating reaction at a dilution of 1 in 100. The other laboratory cultures of the typhoid bacillus also reacted with the blood of this patient, while several varieties of the bacillus coli, on which serum from a case of typhoid fever has often marked agglutinating power, failed to give the reaction clearly.[1]

As this result was so unique, and in order to exclude any possibility of error, I a second time obtained a sample of the urine with the most aseptic precautions possible (that is, boiled glass catheter, sterilisation of orifice of urethra, etc.), and again succeeded in getting in the plate colonies of a pure cultivation. The colonies are proved to be those of the bacillus of Eberth. The blood was also tested a second time, and again reacted with the bacillus isolated from the urine and with the other laboratory typhoid bacilli. It showed on the second occasion a slightly increased tendency to clump the laboratory cultures of the bacillus coli communis. The power of agglutinating the coli communis cultures was, however, still much less than was commonly seen in typhoid fever.

The patient has been six weeks in hospital without abnormal temperature or other symptoms pointing to typhoid fever. Her history for the last three years, obtained with great care, is as follows:

M. R., aged 35, three years ago was living in a house where two children died, one of bronchitis and the other of diarrhœa (patient's diagnosis). She helped to nurse these children; shortly afterwards she suffered from frequent micturition. This trouble developed gradually, and was afterwards accompanied by pain. She consulted a doctor and was sent into hospital (medical wards) in December, 1805, where she was treated for three months for painful and frequent micturition. At this time there was an occasional passage of blood by the urethra. She left hospital considerably improved, but still suffering from frequent micturition. She returned to her work, but again in May, 1898, she had to consult a medical man, who, after treating her for some months for cystitis, sent her into the Royal Hospital, where she is at present a patient. During the three years she has suffered from cystitis she has been troubled with headaches, which she states increase with the pain in the bladder region.

I have been unable to find a record of any case of uncomplicated cystitis from which the typhoid bacillus has been isolated in pure culture. In the exhaustive discussion of genito-urinary infections at the Edinburgh meeting of the British Medical Association this year no such case was mentioned.

This case seems of interest for the following reasons. 1. The history gives no evidence that the patient ever had typhoid fever, and the fact that she spent so much of her time in hospital and was under medical treatment at home may be held to exclude any possibility of mistake in this respect. In cases of typhoid fever the bacillus of Eberth is often found in the urine, even some weeks after the temperature is normal.[2] This case is one of typhoid infection without the usual symptoms of typhoid fever, and since there is no point in the history subsequent to the commencement of the cystitis three years ago, which suggests the occurrence of a new infection, the probabilty is that the typhoid bacillus has been present from the beginning. When we consider the fact that typhoid bacilli are so easily destroyed by more vigorous forms, such as Escherich's bacillus, it seems highly improbable that at any time during the course of the cystitis the typhoid bacillus has displaced the coli bacillus in the bladder. The acidity of the urine excludes the probability of other forms commonly found in cystitis ever having been present.

2. The blood serum gave a decided "reaction of infection." This shows that the case is not a simple bacteriuria, but that the bacillus has a nidus somewhere, as for example in the mucous membrane of the bladder, and thereby has such an effect on the blood and tissues as to cause the serum to acquire the agglutinating power.

3. It seems to follow that in this case the bacillus of Eberth was capable of producing a local lesion without the patient suffering from typhoid fever.

4. The fact that the bacillus can grow in the tissues without any symptoms of enteric fever resulting, and produce there a local lesion, is in favour of the view that this fever is a true general infection, and not merely of local origin, in the Peyer's patches of the intestine.

5. It also proves that the bacillus may occur in the tissues, and the blood serum give Widal's reaction, without the infection which we recognise as typhoid fever resulting.

6. To explain the anomalous fact that we have here a lesion, restricted apparently to the urinary organs, produced by the typhoid bacillus, which has persisted for a very considerable time without any symptoms of typhoid fever, three theories seem admissible:

(*a*) This patient for some reason or other was not very susceptible to infection with Eberth's bacillus, so that when the opportunity for infection occurred a local lesion alone resulted, and no general infection. This agrees with the result obtained when a non-susceptible animal is inoculated with a given bacillus.

(*b*) We have here a form of typhoid bacillus which differs in its infectious power from the recognised form of Eberth's bacillus.

(*c*) Typhoid fever is not solely due to the bacillus of Eberth, but other etiological factors must be brought to bear on the patient before the clinical features of typhoid septicæmia result. The researches of Sanarelli,[3] which show how the virulence of the typhoid bacillus is increased by the injections of the toxin of the bacillus coli communis, and also those[4] of Sidney Martin,[4] which confirm his results, make it certain that the bacillus coli communis may be directly concerned in producing a virulent typhoid infection in animals. In the recent report on the Belfast water supply, Dr. Lorrain Smith has shown that the bacillus coli communis had a distinct relation to the etiology of the recent epidemic of typhoid fever in Belfast (1898), and that many of the cases gave evidence of the existence of a mixed infection of the bacillus of Eberth and that of Escherich.

The persistence of the typhoid bacillus in the bladder possibly for three years appears less remarkable when we recall the cases in which abscesses containing typhoid bacilli have been observed six or seven years after the occurrence of typhoid fever in the patient.[6]

I have to express my thanks to Professor Byers for permission to publish the clinical account of this case, and to Dr. Lorrain Smith, in whose laboratory the examination of the urine was conducted, and who not only suggested the line of investigation, but also verified my results.

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ON THE INFLUENCE OF PATHOLOGICAL STATES UPON THE ELIMINATION OF WATER AND CARBON DIOXIDE BY THE SKIN.[*]

BY J. O. WAKELIN BARRATT, M.D.LOND., F.R.C.S.ENG.
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OBJECT OF THE INVESTIGATION.

THE object of this investigation has been to study the nature of the process of elimination of water and carbon dioxide as it occurs locally. To this end it has been necessary, in the first place, to ascertain the normal output of these substances at varying temperatures.[1] This done, attention has been turned to the modification of output induced by abnormal local conditions, it being conjectured that in this way further light would be thrown upon the mode in which these functions of the skin are affected. The surface of the upper limb has been submitted to experiment throughout. The pathological states studied have been those produced (1) by the application of a ligature to the limb,[2] and (2) by irritating the skin by the application of carbolic acid so as to excite a condition of inflammation.[3]

The average normal output of water from the skin of the upper limb (up to the level of the insertion of the deltoid) was found to be, at 35° C., about 4 grams per hour, and that of carbon dioxide about 20 mg. The actual output, however, varies from hour to hour, and still more from day to day. The temperature to which the skin is exposed has a marked influence on the discharge of carbon dioxide, and a relatively slighter effect on that of water. Further, the average output varies in different individuals, and also in the same individual at different seasons.

The influence of a ligature applied to the upper limb as close to the shoulder as possible is to cause a diminution of the output of water, amounting, it may be, to as much as 20 per cent., while a still larger variation of the output of carbon dioxide occurs in the opposite direction—namely, that of increased discharge. The extent of the alteration of output corresponds to the degree of tightness of the ligature, and is observed whether the temperature of the water bath surrounding the limb is 35° C. or 25° C.

METHOD OF EXPERIMENT.

In order to study the influence of inflammation, the surface of the limb was irritated by the application of carbolic acid, and it was found that the elimination of carbon dioxide was but little altered, such change as occurs being in the direction of a slight diminution of output at first and a small increase subsequently. On the other hand, there is a marked decrease in the output of water, amounting in the experiments made to more than 50 per cent.

The secretion of water by the skin can also be studied qualitatively, and in this way a valuable illustration is afforded of the mode in which inflammation produces its effect. Thus if an injection of $\frac{1}{100}$th to $\frac{1}{500}$th of a grain of pilocarpin nitrate is made into the skin of the palm, sensible perspiration is observed over a small circular area whose centre corresponds with the position of the front of the needle. When this area, which presents to the naked eye a finely glistening appearance, is examined with a lens, it is found to be covered with fine droplets of perspiration, situated at the funnel-like orifices of the sweat glands, some of which may run together (Fig. 1). If an injection of pilocarpin nitrate is made into the palm where this is hard, dry, and parchment like as the result of the application of carbolic acid, no droplets are visible as a rule, but should any be present, they are few in number, and appear as excessively fine points (Fig. 2). If a piece of such horny epidermis is peeled off (this cannot be done before about six days from the application of carbolic acid), an opportunity is afforded, when pilocarpin is injected, of contrasting the secretion from the new surface and the old; on the former droplets are seen, which are rather less numerous and somewhat smaller than on the opposite palm, while the latter shows no droplets.

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[*] Towards the expenses of this research a grant was made by the British Medical Association on the recommendation of the Scientific Grants Committee of the Association.

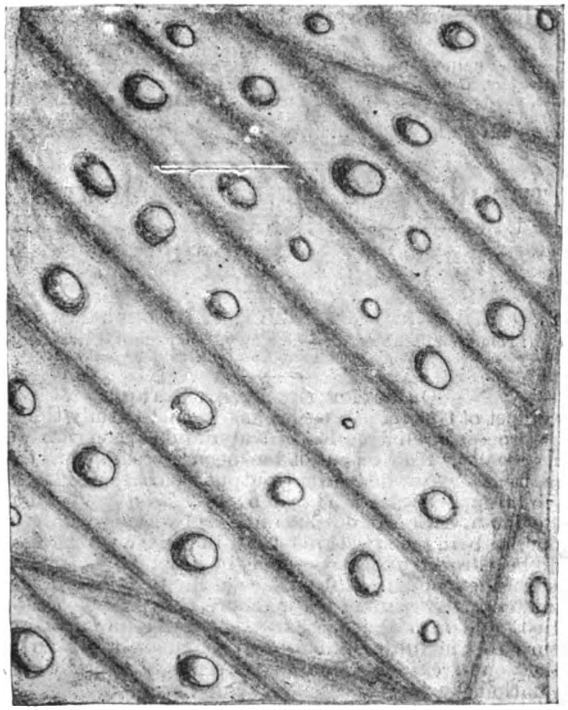

Fig. 1.—Representing the skin of the palm seven minutes after an endodermic injection of $\frac{1}{20}$ gr. of pilocarpin nitrate; the orifices of the sweat ducts exhibit minute droplets of perspiration. × 25.

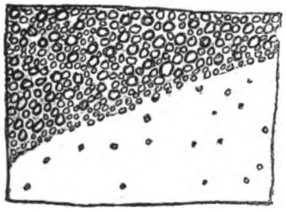

Fig. 3.—Showing the appearance presented by the skin of the forearm when, by enclosing the limb in a glass case kept at 35° C., the sweat secreted is prevented from evaporating and therefore becomes visible; above and to the left the skin is normal and shows numerous fine beads of perspiration; below and to the right the skin is reddened by the application of carbolic acid and shows very few droplets. Natural size.

Similar observations may be made upon the skin of the arm and forearm without the use of pilocarpin. When an incomplete application of carbolic acid to the skin has been made, so that red and white areas appear side by side, it will be found that if the limb is placed in a glass receiver heated to above 37° C. (to prevent the condensation of moisture on the glass), the air in the receiver being stationary, such perspiration as is produced remains in the visible form. After the expiration of a sufficient period of time the white areas will be seen to be covered with beads of sweat, while the red areas will be quite free from perspiration, or will merely contain a small number of fine droplets (Fig. 3).

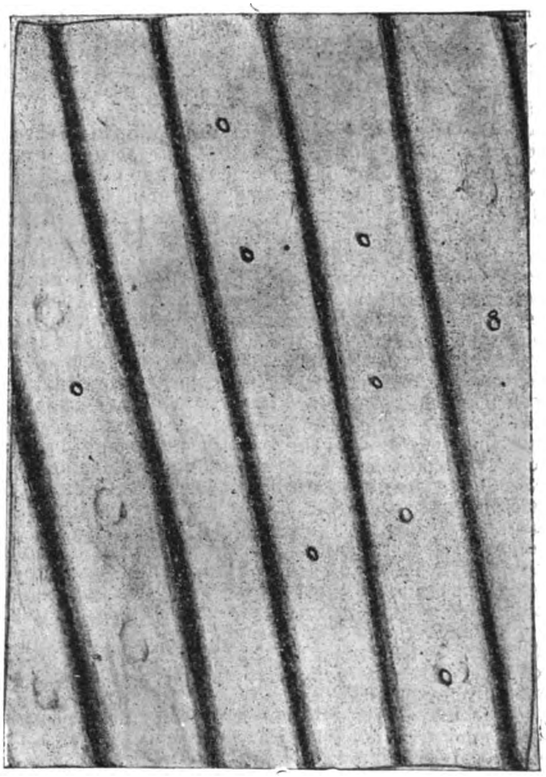

Fig. 2.—Representing the skin of the palm four days after the application of carbolic acid; $\frac{1}{20}$ gr. of pilocarpin nitrate has been injected as in Fig. 1; the number of droplets at the orifices of the sweat ducts is less than in Fig. 1 and the droplets themselves are smaller. × 25.

Significance of the Observations.

We now come to consider the bearing which the experiments above detailed have upon the nature of the processes occurring locally in the skin. Taking first the elimination of carbon dioxide, it is to be observed that the dependence of this upon the temperature of the skin appears to stamp the process as essentially a manifestation of purely local events, and not as an adjustment to general internal or external conditions. The effect of a ligature in causing an increased carbon dioxide output is also significant. The ligature produces compression of nerves and also of blood vessels and lymphatics, but the former is partial in extent and limited in area, not affecting at the most one-fifth of the surface, while the latter is general, and must therefore be regarded as the effective cause of the carbon dioxide increase. Two views of the mode of elimination of carbon dioxide are tenable: one is that it is a respiratory process comparable to that occurring in the lungs, the carbonic acid gas diffusing from the blood through the skin into the external air; the other is that carbon dioxide is produced by the activity of the cells of the skin, in the same way that it is produced elsewhere, and diffuses not only into the blood stream by which it is carried off to be got rid of by the lungs, but also into the external air, the latter being rendered possible by the existence of a free surface. A little consideration will make it clear that these two processes, which are totally dissimilar, would be affected in opposite ways by a ligature. The former would be diminished by diminishing the rate of flow of blood from which the carbon dioxide is derived; the latter would be increased by the arrest of the blood stream by which the carbon dioxide is removed. The increase which actually occurs must be taken to indicate that the formation of carbon dioxide by the skin is an expression of the general metabolic activity of the skin, and not that of a respiratory function. This view, moreover, is in harmony with the physiology of the tissues generally.

In dry dermatitis produced by carbolic acid, the tendency noted to initial decrease of the carbon dioxide output, followed by increase when desquamation occurs, is presumably related to the thickness of the horny epidermis, which is at first increased owing to the arrest of the normal mode of shedding in fine scales, and subsequently diminished when peeling occurs.

The elimination of water by the skin now remains to be considered. This, unlike the discharge of carbon dioxide, is known to stand in relation to the general needs of the economy, in particular is it associated with heat regulation.

The diminution of the aqueous discharge of the skin caused by the application of a ligature seems to be attributable not to compression of nerves, which is probably too slight in amount and too small in extent to cause such diminution, but to the mechanical obstruction of the blood vessels which presumably in this case, as in that of ligature of the renal artery, tends to throw the secreting epithelium out of action.

The restriction of the output of water caused by the application of carbolic acid to the skin of the upper limb is associated with a remarkable parchment-like hardness of the skin, especially of the palm. That this is due to the horny epidermis becoming abnormally dry is shown by the fact that the stiffness of the skin exactly resembles that which horny epidermis [in the form of shed scales or shavings from a corn] exhibits when dry, and disappears when the skin is soaked in water; and on the other hand when horny epidermis is immersed in liquid carbolic acid it swells up and becomes softened, but on subsequent washing and drying its characters are found to be unchanged, beyond perhaps a slightly greater opacity when soaked in water, and a somewhat increased brittleness when dry. The hard, harsh condition of the epidermis in dry dermatitis is therefore due to the arrest of the secretion of sweat, being not the cause but the effect of the absence of perspiration.

On the other hand, it is quite clear that the epidermis offers a resistance to the passage of perspiration through it, for when the harsh, dry, horny cuticle is pulled off visible perspiration again makes its appearance while, conversely, so long as the hard epidermis remains attached, the surface continues hard and dry.

When vesiculation of the skin or the formation of bullæ occurs the contained fluid does not visibly escape by the ducts of the coil glands, although these may be torn across. The fluid in the cavity of the vesicle or bulla contains coagulated material, part of which is free, while the rest is deposited on the walls of the cavity, some of necessity obstructing the sweat ducts. In dry dermatitis a similar blocking of the sweat ducts occurs, for although there are no macroscopic vesicles, yet the pathological condition which forms a necessary precursor of vesiculation is present—that is to say, there is a moderate degree of spongy transformation of the prickle-layer, the prickles themselves are elongated, and the spaces between them distended with coagulable exudation, some of which finds its way into the sweat ducts and is the cause of the arrest of the secretion of sweat which occurs. The dryness of the skin must therefore be regarded as mechanical in its origin.

In conclusion, I must express my great indebtedness to Professor Vaughan Harley for his kind assistance throughout the course of this research.

REFERENCES.

[1] On the Normal and Pathological Elimination of Carbonic Acid and Water by the Skin, *Jour. of Physiol.*, xxi, 1897, pp. 192-208. [2] *Ibid.* [3] On the Elimination of Water and Carbon Dioxide from Inflamed Skin. *Jour. of Physiol.*, xxii, 1897, pp. 206-214.

ON THE INCUBATORY PERIOD IN VARICELLA OR CHICKEN-POX.

BY WILLIAM SYKES, M.D., F.S.A.,
Gosport, Hants.

A CONSIDERABLE difference of statement as to the incubatory period of chicken-pox is to be found in the literature of the subject. Dr. Tanner[1] gives it as no longer than four days; Dr. George Gregory[2] four to six days; Dr. Heberden[3] who in 1761 first differentiated chicken-pox from small-pox, believed it to occupy eight or nine days; Dr. Bristowe[4] gives it as in some cases exactly a week, but more commonly a fortnight; Dr. Eustace Smith[5] practically the same, namely, from seven to fourteen days; Dr. Goodhart[6] eight to sixteen days; the German author, Thomas[7] who quotes Körber and Hesse as agreeing with him, fixes the period at thirteen to seventeen days, as does Dr. McCombie,[8] Dr. Liveing[9] at about thirteen days with eruption on the fourteenth; Dr. S. Gee[10] gives the time as a fortnight; Dr. Clement Dukes, of Rugby (a high authority), fourteen to nineteen days, while Trousseau extends the incubation to so long a period as from fifteen to twenty days[11].

With the honourable exception of Dr. Goodhart, all the authors quoted have omitted to supply any details of the cases upon which the statistics of length of incubation were founded, so that it is impossible to compare their statements and reject those which appear untrustworthy. But as their observations differ so widely from each other, it seems worth while recording fresh instances which can be verified, in order to secure some certainty on the subject, and as I have had under observation a limited epidemic of chicken-pox among children of the better classes, in which I have been able to ascertain the incubation period with some approach to accuracy, I venture to bring my observations to the notice of the profession.

M. R., a young lady, aged about 17, was teaching her Sunday-school class of girls in the village school on Sunday, April 17th, 1898, when one of her little scholars complained of feeling ill and asked permission to lean against her teacher, a request good-naturedly granted. The very next day the sick child developed the rash of chicken-pox. M. R. herself exhibited the chicken-pox rash on April 23rd, just six days from this exposure, but as the disease was not recognised by her friends she was not isolated in any way. Seven days later, namely, on April 30th, her youngest brother, O. R., showed a few spots in the evening and was fully out on May 1st.

I am aware that in both these cases there is just the possibility of a fallacy of coincidence. M. R. may not have received the infection from the child who leant against her in school, but from some other source; or, on the other hand, she may have conveyed infection in her clothes from this child directly to her little brother, so lengthening his period of incubation to thirteen or fourteen days, but I do not think either of these errors likely. There were, so far as I can ascertain, no cases of chicken-pox either in class or among M. R.'s friends other than the child mentioned; while, as M. R., who is much attached to her little brother, had both nursed him and played with him frequently while her rash was fully out, it is more probable that he had been infected by her than by any other conveyed infection. It will be noticed that in both these cases when there had been close direct personal contact the incubation period was short, namely, six or seven days. As the nature of the disease was still unrecognised, little O. R. continued to attend a small Kindergarten school for the children of the upper classes. He was there for two hours each day on Monday and Tuesday, May 2nd and 3rd, with the rash fully out upon him. I saw him on the evening of May 3rd for the first time, when he was at once excluded from the school. This little Kindergarten had 16 young scholars meeting in an ordinary sitting-room. Two little boys, elder brothers of O. R., developed rash on May 5th and May 18th respectively. These cases must, however, for the purpose of our inquiry be ignored, since we have no certainty from which relative they contracted the infection. They were, moreover, both too old to attend the Kindergarten. Eleven days after O. R.'s removal from this school, on May 14th, one little pupil, H. C., exhibited a few spots of chicken-pox, and was fully out with the rash on the next day. Three days later, on May 17th, and fourteen days after O. R.'s exclusion, G. C., a brother of H. C.; F. L., T. H., W. G., L. C., and W. C., six pupils of the Kindergarten, all exhibited spots of chicken-pox; while P. L., the little sister of F. L., also an attendant of the school, showed rash the next day, May 18th.

Of one other scholar, who was removed to another town and developed chicken-pox after he arrived there, I have not as yet been able to ascertain the exact date of sickening.

So that of fifteen young children attending the Kindergarten and brought into contact with O. R. while he was infectious during two days, one developed the eruption eleven days, six fourteen days, and one fifteen days after his removal; while in the case of one child I have no information. Therefore, of fifteen children exposed to infection 60 per cent. succumbed to the disease, and of these, 66 per cent. succumbed exactly fourteen days after their last exposure. On the other hand, H. R., an elder brother of M. R. and O. R., set out for a distant public school on May 3rd, before his brother's and sister's disease had been recognised. He developed rash on May 22nd, exactly nineteen days after last exposure to infection.

Placing these data in tabular form for the sake of ease of comparison, we get the following results:

Initials of Patients.	Date of Infection.	Date of Eruption.	Length of Incubatory period.
M. R.	April 17th	April 23rd	6 days exactly
O. R.	April 23rd and after	May 1st	Not more than 7 days
H. C.	May 2nd and 3rd	May 14th	11 or 12 days exactly
G. C., T. L., T. H., W.G., L. C., W. C., six children in all	" " "	May 17th	14 or 15 days exactly
P. L.	" " "	May 18th	15 or 16 days exactly
H. R.	May 3 or earlier	May 22nd	19 days at least

REMARKS.

1. We know so little what is taking place during the incubation period of microbic disease that we must not dogmatise on the subject. Two factors, however, we may assume to influence the earlier or later appearance of eruption in this class of cases; (*a*) The tissue resistance of the person infected, and (*b*) the amount of poison, namely, number of microbes received by him. The first factor is an obvious one, and quite sufficiently accounts for the two cases (H.C. and P.C.) recorded above, where two children, who had apparently received the same amount of poison as their schoolfellows, developed the eruption, the one three days before, the other one day after, their companions. Of course there may be accidental causes, such as propinquity or distance of seat in school, belonging to the next class of factors, which may have partly affected these results as well. The second factor requires a little more consideration, but whether we believe the period of incubation to be occupied by the increasing of the invading microbes to such a sufficient number as to be able to produce by their irritation that peculiar inflammation of the skin which constitutes the eruption, or by the development of certain chemical poisons the resultant of bacterial occupation to produce the specific inflammation in question, it seems to me obvious that the more microbes can be introduced either suddenly or continuously during the period of infection the more quickly will they themselves increase and multiply to the requisite saturation of their victims, or the more quickly will they pour out their chemical excreta to the requisitely poisonous extent.

2. In consonance with this last theory, one sees why six children exposed to practically the same dose of infection absolutely all sickened on the same day. While two other children exposed to actual close bodily contact with infection sickened in a much shorter time—just exactly as inoculated chicken-pox takes a less time,[12] namely, eight days to incubate—than the average fortnight of the naturally incurred infection. While, again, the elder boy, who was only exposed to infection for a short time and in much less degree than his young brother, required the longest period of nineteen days to develop his eruption.

3. It thus appears probable, as is only reasonable from the above considerations, that the period of incubation of this class of disease is not a fixed quantity, but varies widely within certain limits; thus, while we may take fourteen days as the average period of incubation in chicken-pox, we have no great difficulty in accepting Tanner's four days or Trousseau's twenty-five days as outside limits in different directions to which the incubatory period may in certain, not perhaps very unusual, instances attain.

4. It is interesting to note in this connection that all the older writers quoted give much shorter periods of incubation in chicken-pox than the more modern ones, and that the more modern the author the longer period does he fix. Is this because we are closer and more accurate observers than our ancestors—a statement I for one cannot readily accept—or because, in consequence of our better ventilation and less stuffy rooms, the microbic poison is really less concentrated, and the period of incubation consequently longer than in earlier times? If the latter be the case, we ought to find a corresponding discrepancy in the statements of earlier and more modern authorities on the subject of the incubatory period of other microbic diseases.

[Since writing the above I have ascertained that the young scholar who was reported to have been removed to another town and there developed chicken-pox—of whom at the time of writing I had no information—who was last exposed to infection on May 3rd, developed rash on May 22nd, namely, nineteen days after last exposure to infection. It is a curious coincidence that both this child and the elder brother of O. R. who were each removed directly after infection to distant places, took the long period of nineteen days to incubate the disease, a length of incubation period only given by Dr. Clement Dukes, of Rugby, amongst English writers, who can himself for the most part only see similar cases removed as these were from the scene of infection to Rugby. Can it be that removal from local poison to pure air prolongs the incubation period?]

NOTES AND REFERENCES.

[1] *A Practical Treatise on the Diseases of Infancy and Childhood*, 1858, chap. xii, p. 223. [2] *Lectures on Eruptive Fevers*, Edin., 1843. [3] *Transactions of College of Physicians*, vol. x, art. 17, *vel.* Comment. de Morbis, cap. 96. [4] *A Treatise of the Theory and Practice of Medicine*, 189, s. v. Chicken-pox. [5] *A Practical Treatise on Diseases of Children*, 2nd edit, 1889, chap. iv, p. 50. [6] *The Diseases of Children*, 4th edit, 1891, chap. xiv, p. 225. [7] *Ziemssen's Cycl. of Medicine*, English Trans, 1875, vol. ii, p. 15. [8] Allbutt's *System of Medicine*, 1897, vol. ii, p. 179. [9] *Handbook of Diseases of the Skin*, 1880, s. v. [10] Reynolds's *System of Medicine*, 2nd edit, 1876, vol. i, p. 219. [11] Trousseau's *Clinical Medicine*, N. Syd. Soc. edit., vol. ii, p. 160. Thomas in Ziemssen's *Cyclopædia of Medicine* (*loc. cit.*) gives the incubation period according to Trousseau as 13 to 17 days, while Dr. Gee in Reynolds's *System* repeats the statement as to Trousseau with the slight difference of 15 to 17 days. An illustration of the necessity of verification of reference. I may note here, though not altogether *apropos*, that Trousseau describes cases of chicken-pox apparently identical with Hutchinson's varicella prurigo. I note this as I have not seen it remarked before. [12] Steiner quoted in *Ziemssen's Cyclopædia of Medicine*, supplemental volume to English translation of 1881, p. 100. On the same principle inoculated small-pox has a shorter period of incubation than the natural variety. Scarlatina also, accidentally introduced by the obstetrician into the system of the puerperal female, has a decidedly shorter incubatory period than in ordinary cases.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

BROMOHDYRATE OF ARECOLINE AS A MYOTIC.

I WISH to call the attention of the profession to the advantages possessed by bromohydrate of arecoline as a myotic. In this country the drug, from its clinical aspect, seems to be but little known. Slight reference has been made to it in a few of the medical papers,[1] but no one appears to have gone very deeply into the subject. On the Continent also, though Mouquet, Bardet, and Amilcare Bietti,[2] have mentioned it; but one, Lavagna of Monaco,[3] really advocates its employment. Arecoline is one of the alkaloids of areca nut, the seed of areca catechu, and the bromohydrate is a white crystalline soluble salt. Its physiological action is closely allied to those of pilocarpin and pelletierine. Taken internally it causes vomiting and diarrhœa, and it is, in addition, a sialogogue, diaphoretic, and vermifuge.

When applied to the eye, in the form of a half per cent. aqueous solution, a sense of tingling or pricking is experienced. This lasts, however, for only a few moments and leaves no conjunctival or ciliary congestion. In from two to three minutes afterwards myosis begins to appear, and reaches its maximum in from ten to twelve minutes, accompanied by a spasm of the ciliary muscle. This ciliary spasm varies in its onset; in some cases it can be noticed prior to any signs of myosis, in others not until the pupil is well contracted. The maximum effect is attained in from ten to fifteen minutes, and lasts for about half an hour. The myosis then gradually becomes less, and at the end of an hour to an hour and a half the eye resumes its ordinary condition.

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[1] EPITOME BRITISH MEDICAL JOURNAL, October, 1890, page 15; and November, 1895, par. 485. *Pharmaceutical Journal*, November, 1896, page 39. *Manchester Medical Chronicle*, November, 1897, p. 151. *Year Book of Treatment*, 1898, page 368.

[2] *Archivo di Ottomologia*, 1897, vol. v, fasc 1-2.

[3] *La Clinique Ophtalmologique*. No. 16, page 197; and No. 18, page 229.

The tension of the normal eye is very little decreased by it, if at all; but in cases of glaucoma, its superiority in this respect over eserine is decided. Unlike eserine, no headache or other unpleasant after-effects are associated with its use, nor is its instillation by any means so uncomfortable. Its action is more rapid and more powerful, but its effect is of shorter duration. It will overcome the mydriasis produced by homatropine more quickly than will eserine, and it will keep well in solution, retaining its activity, apparently unchanged, for a very lengthened period. In price it compares very favourably with eserine or pilocarpin.

Whilst assisting Mr. Cross, of Bristol, in his private practice and in his clinic at the Eye Hospital I had excellent opportunities of trying the drug and of noting its action, and I am indebted to him for kind advice and help in the matter. Writing to me recently on the subject, Mr. Cross says:

> During the past seven months I have been using a-half per cent. solution of arecoline hydrobromate as a substitute for eserine or pilocarpin, while for quite three months it has been used as the routine drug for the production of myosis, in my clinic at the Bristol Eye Hospital. I have not made any physiological experiments, but consider the drug, judged from a clinical standpoint, to be a thoroughly reliable myotic. Its action is much stronger and more rapid than that of pilocarpin, whilst it is distinctly less irritating than eserine. In the treatment of glaucoma I have been so far well satisfied with the results obtained. In one subacute case the pupil became well contracted in about two minutes, in spite of the fact that the eye at the time was under the influence of cocaine. On the whole, recognising the cheapness and stability of the drug the strength and rapidity of its action, and the absence of pain or discomfort after its use, I consider that arecoline hydrobromate is the best myotic which we possess for routine use.

The drug can be obtained from Messrs. Ferris and Co., of Bristol, who will, if required, send it out in solution.

K. C. CHETWOOD-AIKEN,
Truro. Ophthalmic Surgeon to the Royal Cornwall Infirmary.

ACUTE FEBRILE CATARRH ASSOCIATED WITH INFLAMED GLANDS OF HEAD AND NECK.

I HAVE observed several cases of the above corresponding pretty closely to the account given by Dr. Snowman in No. 1980 of the BRITISH MEDICAL JOURNAL, with the exception of the numerous small glands he describes as scattered over the scalp. I notice that no lymphatic glands are described in Gray as occurring there; it is probable that Dr. Snowman is thinking of the hyperæsthetic bumps which appear in some neuralgic patients in the track of cutaneous nerves during the attacks of headache.

Referring to the general condition which, as he says, is not recognised in books, I have often thought of the probable etiology. One patient I have in my mind is a lady of about 45 of neuralgic-gouty habit. She has several times had sudden catarrhal laryngitis, neuralgic headache earache, and inflamed suboccipital and cervical glands. These attacks on two occasions have coincided with spells of cold easterly wind, and I considered that the illness was the effect of cold acting as a local irritant or poison, inflaming each of the structures that came in its way. Applications of medicated steam to the larynx and hot (poppy) fomentations to the glands gave the quickest relief. The enlarged glands subside in about ten days.

Another case is that of a strong, healthy schoolboy who, if a little run down and the victim of a cold, develops a slight tonsillitis and one or two very large glands. These entirely disappear between-whiles. Weakly children with chronically enlarged tonsils also get enlarged glands during the acute attacks, which go down without suppuration. I cannot think all these cases are due to tuberculosis.

Bournemouth. GEORGE MAHOMED.

DR. HENRY E. ARMSTRONG, Medical Officer of Health for Newcastle, has been elected a Corresponding Member of the Royal Medico-Chirurgical Academy of Madrid.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

ROYAL HANTS COUNTY HOSPITAL, WINCHESTER.

CASE OF ANGINA LUDOVICI: RECOVERY.

[Under the care of Mr. MARGERISON.]

(Reported by W. A. SHARPIN, M.R.C.S., L.R.C.P.Lond., House-Surgeon to the Hospital.)

History.—The patient, a lad of 19, was sent into the hospital with the following history: On September 20th, 1898, a tooth was extracted from the right lower jaw. The next day the face and neck on the same side had swollen considerably; and on September 22nd the symptoms were so acute that he was sent to the hospital.

Condition on Admission.—There was on the right side of the face and neck a large swelling, which was hardest below the jaw in a vertical line with the canine tooth. Around this a puffy œdema extended backwards to the space between the angle of the jaw and the mastoid process, and downwards as far as the sternum. The tongue was much swollen behind and pushed upwards, so that there was great difficulty of speech and swallowing, together with considerable dyspnœa, evidenced by the widely-dilated pupils, cyanosis, and profuse sweating. The temperature was 100.8°, and the pulse 104 and very compressible.

Operation.—A small quantity of A.C.E. mixture was administered, and free incisions made vertically through the deep fascia, one in the middle line, one over the most prominent part of the swelling, and one behind. Some thin watery offensive fluid escaped. A large drainage tube was made to connect the middle and posterior incisions, and the wound dressed with large hot boracic fomentations every four hours.

After-History.—Next day, September 23rd, he could swallow and talk better, whilst the dyspnœa had passed off. The temperature was 100°, and the pulse 132 and very weak. Towards evening he began to get delirious, a symptom which was met by brandy and large quantities of fluid nourishment. On September 24th the temperature was 100°, the pulse 100 and stronger. The incisions were sloughing. The urine was albuminous. After this the temperature fell to normal, and the patient improved rapidly till October 4th, when the temperature ran up again, and remained irregular till October 7th, when a large quantity of blood and pus was brought up through the mouth, the pus having burrowed into the pharynx. After this the progress of the patient was uninterrupted, and on October 29th he was discharged.

REMARKS.—The recovery of the patient was undoubtedly due, in the first place, to the early recognition of the case by the patient's medical attendant, Dr. Burrow, of Petersfield. That tracheotomy was not necessary was probably due to the same reason. The burrowing of the pus into the pharynx, instead of into the mediastinum, was, I think, a more unusual, if happier, termination of the case than the latter.

THE SANITARY CONDITION OF HAVANA.—Colonel Waring, the sanitary engineer, who was commissioned by the American Government to inspect Havana from the hygienic point of view, reported that it was the worst case of filth and carelessness in a city that he had ever known of in his long experience. In addition to a sewage system (of which not the slightest trace exists in Havana) and new pavements for the streets, he urged that 100,000 water-closets should be imported, and each house provided with one. Perhaps the whole cost would amount to nearly £4,000,000, but the result would be that not only yellow fever, but many other infectious diseases which are annihilating the Cuban people, would disappear. Colonel Waring declared that similar work was necessary, not only at Havana, but at every port at which direct communication is had with the United States. A melancholy result of Colonel Waring's sanitary mission is his own death from yellow fever, contracted in Cuba.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

T. BRYANT, M.Ch., F.R.C.S., President, in the Chair.

Tuesday, January 10th, 1899.

AORTIC ANEURYSM AS A CAUSE OF HYPERTROPHY OF THE LEFT VENTRICLE.

DR. JAMES CALVERT, who read this paper, said that aortic aneurysm certainly was a cause of hypertrophy of the left ventricle, and others were equally positive that it was not. This conflict of opinion was embarrassing to the teacher and very confusing to the student. He had therefore thought it worth while to see what light the *post-mortem* records of St. Bartholomew's Hospital threw upon the subject, and the research had been made a comparatively light task by Dr. Oswald Browne's recent work entitled *Aneurysms of the Aorta*.[1] Dr. Browne's thesis was based "upon an analysis of all cases of aneurysm of the aorta in any of its parts dying in St. Bartholomew's Hospital during the last thirty years, upon whom an examination was made after death, and its results carefully recorded." The result of the research was briefly that with regard to 124 cases of aneurysm of the arch of the aorta, in 68 of them there was no hypertrophy of the left ventricle; in 47 of them the hypertrophy could be perfectly explained by other causes present; in 9 of them the hypertrophy could very probably be explained by other causes present. Therefore, so far as the records of St. Bartholomew's Hospital were concerned, there was practically no evidence in favour of aortic aneurysm being a cause of hypertrophy of the left ventricle.

Dr. W. S. **LAZARUS-BARLOW** said that in the last two years there had been 13 cases of aneurysm of either the first or of the second part of the arch of the aorta examined after death in St. George's Hospital; in 8 of these there was expressly stated to be no hypertrophy of the left ventricle; in the remaining 5 hypertrophy of the left ventricle was associated with either aortic reflux or with kidney disease. These figures corresponded very closely with the larger ones of the author. *A priori* he would not have expected hypertrophy of the left ventricle, inasmuch as the aneurysm would tend to increase the area of the vascular system, he further was of opinion that atheroma of the aorta of itself could not lead to hypertrophy.

Dr. A. **MORISON** had noticed twenty years ago that aneurysms of the aorta need not produce hypertrophy of the left ventricle. The important factor in the production of hypertrophy was leakage through the aortic valves. He pointed out that if there was disease of the coronary arteries, interfering with the flow of blood into the walls of the heart, the valves were exposed to greater strain, and were more likely to suffer.

Dr. H. G. **TURNEY** had expected that aortic aneurysm would, by diminishing the elastic recoil of the aorta, have given the heart more work to do, and so have led to hypertrophy. But he quoted a case which agreed with the conclusion the author had so completely proved. A man, aged 50 years, died with an aneurysm which had been diagnosed sixteen years before; it was a fusiform aneurysm of the thoracic aorta eroding the spine; there was no hypertrophy of the heart.

Dr. **SEYMOUR TAYLOR** had from general impression formed the opinion that aortic aneurysm led to hypertrophy of the left ventricle, and he urged the author to extend his investigations, and to search for other causes of hypertrophy of the left ventricle in aortic aneurysm. In some cases an aneurysm close to the valves might so drag on them as to lead to incompetency. The elastic recoil and the muscular tissue, small though it was in the aorta, if impaired might increase the resistance, and so play an important part. Where an aneurysm arose in an old person the heart might not be capable of hypertrophy. He thought that hypertrophy of the heart might under certain conditions produce an aneurysm.

Mr. H. W. **PAGE** had done his pathological work under the late Dr. H. G. Sutton, who had taught that in aortic aneurysm the heart was not only not hypertrophied, but that it might even be atrophied.

Dr. **ROLLESTON** said that his pathological experience at St. George's coincided with the teaching of Dr. Moore, which the statistics of the paper proved—namely, that uncomplicated aortic aneurysm did not lead to cardiac hypertrophy. This was remarkable, for aneurysm was generally due to atheroma, which in its turn was usually the result of high arterial tension; and the last factor was in itself sufficient to produce hypertrophy of the left ventricle.

Dr. H. A. **CALEY** inquired as to the incidence of syphilis in the author's cases. It would be interesting to know whether syphilis was more often present in the younger subjects of aneurysm and arterio-sclerosis in the older.

Dr. **NORMAN MOORE** had always believed and taught the conclusion so well proved in the paper. He laid stress on the importance of weighing the heart before deciding whether there was hypertrophy or not, and on the need for microscopical examination of the kidneys before acquitting them of interstitial fibrosis. If a patient with aortic aneurysm had hypertrophy of the heart there was some other lesion present, such as valvular disease, which was not manifest, or kidney disease.

Dr. E. **CAUTLEY** said that not only must the heart be weighed, but that in estimating the presence of hypertrophy the weight of the body and the occupation of the patient must be taken into account. Atheroma was rather a result of strain than a cause. In aortic aneurysms the apex of the heart was often displaced without there being any cardiac hypertrophy.

Dr. **CALVERT**, in reply, said that it appeared worth while to bring forward the experience of St. Bartholomew's Hospital on this point. When speaking of atheroma he had it chiefly in his mind as evidence of arterial tension, but in some cases rough atheromatous plates might give rise to some obstruction to the blood flow.

AORTIC ANEURYSM: INVOLVEMENT OF SENSORY NERVE ROOTS: SUDDEN PARAPLEGIA: LAMINECTOMY: DEATH.

Messrs. H. G. **TURNEY** and C. A. **BALLANCE** described the case of W. B., aged 35, admitted to St. Thomas's Hospital on September 14th, 1897. The patient had had a hard chancre 17 years ago. His present illness began two years ago with pain in the middle of the back of an aching character, not constant at first, but becoming so later. It soon extended round his body at the same level. For the last four months the pain had been continuous and severe; movement had no effect on it. Morphine had been necessary to relieve it. He had lost 2 st. in weight during the last four months. On admission he was found to be a powerfully built man, but thin, and with a well-marked expression of pain on his face. He complained in a wailing voice of intense pain in the upper abdomen and back. As regarded the nervous system there was no loss of power or affection of sensation in the extremities; all the reflexes were normal; mental condition clear. He referred his pain to a triangular area situated between the fifth rib and the ensiform cartilage on the right side in front. The skin in this area was intensely hyperæsthetic, borders well defined; a similar condition had been present in the corresponding triangle on the left side, but this part was now normal. Rigidity of back at once attracted attention, more marked in the upper half of the spine. There was also a distinct deformity; the site of maximal projection was occupied by the seventh and eighth dorsal spines. The tenth spine was extremely tender. There was no sign of visceral disease in either chest or abdomen. Antispecific treatment was adopted, but without change in the patient's condition. On October 11th the hyperæsthesia was transferred to the left side, and there was some difficulty in swallowing solid food. On October 23rd, while the patient was being washed in bed, he called out with intense pain, and instantaneously lost power and feeling in his legs. The paraplegia remaining unaltered, the following morning laminectomy was performed. The body of the seventh dorsal vertebra was found to have completely disappeared, its place being occupied by recent clot. The finger was passed into the clot, and no hæmorrhage occurred. Death took place ten hours after the operation. At the necropsy a large aneurysm was found arising from the descending aorta on its posterior aspect, situated exactly in the middle line, and causing destruction of both vertebræ and intervertebral discs. The diagnosis was believed to rest mainly between aneurysm, caries, and new growth, but no final conclusion seemed to be possible even at the operation. The remarkable features of the case were: (1) The insuperable difficulties in the way of a correct diagnosis; (2) the passage of the finger into an aortic aneurysm without hæmorrhage; (3) the localisation of certain sensory root areas; (4) the unusual destruction of the intervertebral discs equally with the vertebral bodies from pressure.

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[1] *Aneurysms of the Aorta*, by Oswald A. Browne, M.A., M.D. H. K. Lewis, London, 1897.

The **PRESIDENT** asked whether the object of laminectomy was removal of a suspected growth? He did not think the hot sponge test was of any value for spinal disease.

Mr. H. W. **PAGE** thought that inasmuch as a suspicion of aneurysm had arisen, the sudden onset of paraplegia would have suggested rupture of an aneurysm. The hot sponge test was quite worthless in examining for spinal disease.

Dr. **TURNEY** said that the indication for operation was pressure on the spinal cord, and that it seemed right to try and relieve this. This the operation succeeded in doing to some extent, as shown by movement of the lower intercostal muscles after the laminectomy. The appearances at the time of the operation suggested a soft sarcoma.

MEDICAL SOCIETY OF LONDON.

EDMUND OWEN, F.R.C.S., President, in the Chair.

Monday, January 9th, 1899.

THE CONDUCT OF THE HEART IN THE FACE OF DIFFICULTIES.

SIR WILLIAM BROADBENT pointed out that the difficulties which the heart had to face were sometimes of its own making, sometimes imposed upon it from outside. It might be pressed upon by an overdistended stomach, displaced by pleural effusion, by mediastinal tumour or by aneurysm, or the flow of blood towards the right auricle might be impeded by pressure on the superior vena cava. Difficulties of another kind might arise from obstruction in the arterioles and capillaries, in the pulmonic circulation by emphysema or by acute affection of the lungs, and in the systemic circulation by the numerous conditions which give rise to high arterial tension. He commented upon the wonderful power possessed by the heart of adjusting itself to altered conditions, pointing out that flatulent distension of the stomach or other part of the intestinal canal was the cause of most of the functional derangements to which the heart was subject, although it behaved very differently in different subjects when subjected to such pressure. The heart, moreover, had special relations with the nervous system, and reflected all changes therein, not only through the cerebro-spinal system, but also through the vasomotor nervous apparatus and the sympathetic system generally. In a large and increasing proportion of people the nervous system was unduly sensitive, and its reactions were therefore exaggerated. It was of the greatest importance to distinguish functional affections of the heart from troubles due to organic disease, especially when severe pain in the cardiac region was a symptom. Angina pectoris, for instance, might be closely simulated by the effects of dilatation or functional derangement of the stomach. He discussed the differential diagnosis of true angina from attacks brought on by the pressure of abdominal viscera. Speaking generally, angina in women was always spurious, and palpitation or irregular action of the heart or intermission of the pulse or pain in the cardiac region might, with little hesitation, be attributed to some form of indigestion, especially if it soon passed off. In this class of cases if the distant cause were removed there would be little fault to find with the conduct of the heart. The two special factors were the nervous system on the one hand and digestion on the other, and according as the neurotic or the dyspeptic element predominated so the treatment would require to be modified. In this connection he especially cautioned them against the tendency to avoid exercise and to take stimulants or drugs, seeing that exercise and fresh air were often what was most required. He then passed on to consider that much more potent factor in the production of actual heart disease, namely, high arterial tension. He pointed out that hypertrophy was not disease, but it was apt to be associated in the decline of life with fibroid or fatty degeneration. The valves, however, might suffer before the muscular walls with ultimate thickening and contraction, and, in the long run, insufficiency. He insisted on the importance of the recognition of unduly high presure as affording one of the most valuable indications for treatment in a great variety of conditions. He particularly deprecated the administration of digitalis in this condition. Discussing the question of treatment in presence of valvular disease, he said the first thing to do was to make out the physiological significance of the lesion. In cases of mitral incompetence, the rise of pressure in the pulmonary artery gave rise to compensatory hypertrophy in the absence whereof there was no indication for treatment. If, however, in spite of compensatory hypertrophy there were symptoms of cardio-pulmonary inadequacy, great carefulness would be required to neutralise the serious effects of the valvular lesion. In presence of these serious effects the first step in treatment must be to relieve the right heart from the overdistension which was paralysing its efforts, failing which digitalis would simply help the straining ventricle in the work of self-destruction. The nearest approach to a modern therapeutic miracle was seen on bleeding in a typical case of this kind, but this measure should be followed up by a good calomel purge. A dozen leeches over the enlarged liver was a good alternative for the bleeding, while in less severe cases the mercurial aperient alone might suffice. The right heart having been relieved, digitalis might be given with advantage. Œdema and serous effusions should be treated by appropriate means. He lacked time to discuss the difficulties entailed by each particular variety of valvular disease, but he insisted on the principle that when the heart was in difficulties more could usually be done for the relief of the patient indirectly, by removing the difficulties, than directly by aiding it to overcome them. This was equally true whether the disturbing iufluence was extrinsic or intrinsic. Therefore, in considering the treatment of cardiac disease or disturbance the first question was how to relieve the labouring or harassed heart by the removal of some condition which was causing or aggravating the difficulties with which it was contending. In doing this they often put an end to the symptoms which had given rise to suffering and anxiety, and rendered the action of digitalis or other cardiac tonic more efficacious.

Dr. **SANSOM** commented upon the tolerance of the heart to certain kinds of injury as exemplified by some recent cases. He pointed out that the musculature of the heart was of itself less important than was generally believed. With regard to fatty degeneration, for example, he confessed that his mind was in a condition of "hopeless imbecility." The hearts of patients suffering from intense anæmia were markedly fatty, yet if the patient recovered from the anæmia the heart recovered and did its work. Even in inflammations of the walls of the heart the ultimate results were very variable. In the treatment of these cases it was less a question of pegging away at the muscle than a question of overcoming certain difficulties. The routine administration of digitalis was, he feared, in some cases an immediate cause of disaster. He insisted on the value of moderate venesection in suitable cases.

Dr. **THEODORE WILLIAMS** referred to cases of his own, illustrating the disturbing influence of a dilated stomach on the cardiac function, and pointed out that even in cases where organic disease was to be suspected, the relief of these collateral conditions often prolonged life. He concurred in the value of venesection in certain cases, but admitted that in practice it was often difficult to carry out. He also mentioned cases illustrating the tolerance of the heart to injury.

Dr. **MORISON** asked the author whether he had absolutely satisfied himself as to the existence of a non-synchronous action of the ventricles, and related the case of a man with a dilated heart and much ascites who was spared surgical intervention by large doses of strophanthus. He pointed out that there were three factors in the production of functional disturbance, namely, nerve, muscle, and blood, and in each case they must ascertain which of these three factors predominated. He remarked that the maximum of relief followed the withdrawal of about 4 ounces of blood, that was, about the capacity of the right heart.

Dr. **SYMES THOMPSON** thought they did not adequately recognise the diagnostic importance of irregular action of the heart. The feelings of the patient in this respect were, however, no guide to the gravity of the lesion. He agreed that it was more important to relieve the heart of stress than to assist in overcoming it, and he instanced the parallel condition of kidney disease in which stimulation was to be avoided.

Dr. **MAGUIRE** insisted on the importance of negative pressure in the heart in assisting its function. This was increased during inspiration and diminished during expiration. This influence might be diminished by disease, as for instance in emphysema, to which fact he attributed the exaggerated shortness of breath from which these patients suffered. With an enfeebled left ventricle the pulsus paradoxus might be produced, the beat corresponding to inspiration not being perceptible at the wrist. That phenomenon could be produced in anyone by movements calculated to increase the chest capacity coincidentally with inspiration.

Dr. **CALVERT**, in reference to senega, which was described as a stimulant expectorant, and was given in chronic bronchitis possibly associated with a dilated heart, pointed out that its active principle exerted a markedly depressing action on the heart, and its use in such cases was contraindicated.

Dr. **ROBERT JONES** asked the author if he could throw any light on the connection that appeared to exist between the heart and certain toxins—notably the toxins of fatigue—instancing the case of a man in whom, when in the status epilepticus, the temperature went up to 103° and the pulse to 140.

Dr. **CAYLEY** suggested that in some cases of failure of compensation this might be due not so much to an increasing mechanical strain as to a giving way of the myocardium, in the production of which toxins might play a part. He discussed the influence of interference with the coronary circulation in weakening the myocardium.

Sir **WILLIAM BROADBENT**, in reply, agreed that venesection was not employed to anything like the extent it deserved, but he did not think the removal of 4 ounces of blood would go far towards relieving the strain on the heart. He concurred in the view that interference with the coronary circulation was an element of cardiac trouble long before the stage of degeneration. He was quite satisfied as to the nonsynchronous action of the ventricles under certain circumstances, of which he gave a striking example. His explanation of the production of pulsus paradoxus was not that of Dr. Maguire, in that he did not believe any amount of negative pressure would stop the ventricle contracting, though by acting on the auricle it might prevent the ventricle filling.

OBSTETRICAL SOCIETY OF LONDON.

C. J. CULLINGWORTH, M.D., President, in the Chair.

Wednesday, January 4th, 1899.

ECTOPIC GESTATION.

DR. **ARCHIBALD DONALD** read a paper on a case of ectopic gestation at the seventh month, in which the fœtus was extracted by vaginal incision. The patient, aged 33, was admitted to St. Mary's Hospital, Manchester, on July 20th, 1898. She had been married about a year, and had been regular till January 20th. In February she had a slight discharge, which in March existed continuously for three weeks. On admission the abdomen was uniformly enlarged by a tumour, which reached about 4 inches above the umbilicus. A loud *souffle* was distinctly heard. The cervix was close to the pubes, and the uterus could be mapped out bimanually in front and to the left, and seemed about the size of a two months pregnant uterus. The posterior vaginal fornix was bulged by a hard mass, which almost filled the brim; this mass was the fœtal head, in which the sutures could be felt. On August 18th, 1898, abdominal section was performed, and the placenta was exposed. The wound was therefore temporarily covered, and the child delivered through a posterior vaginal incision by cranioclasm, and the sac packed from the vagina with iodoform gauze. Alarming hæmorrhage occurred when the gauze was removed on the fourth day. The separation of the placenta occupied some weeks, but the patient made a good recovery, and was discharged strong and well on November 12th. The author described the position of the fœtus in the broad ligament, and discussed the advantages of the vaginal route.

Dr. **GALABIN** said that in intraligamentous pregnancy the vaginal methods of operating when practicable secured several advantages, obviating the necessity of stitching the sac to the abdominal wall, and any temporary sinus caused little inconvenience. In several cases of extrauterine gestation of shorter duration than seven months he had adopted the plan followed by Dr. Donald of making an exploratory abdominal section, and if the case proved to be one of intraligamentous pregnancy unruptured, or if the pelvis was completely shut off by adhesions, opening the sac *per vaginam*. The advantage of abdominal exploration was shown in one case where the sac had been ruptured and a large quantity of blood was effused into the peritoneal cavity. He had removed the placenta in one case through the vaginal incision three days after the operation and the patient rapidly convalesced.

The **PRESIDENT** said that Dr. Donald could already lay claim to be considered as a pioneer in the treatment of early ectopic gestation by operation through the vagina, and he had now brought before the Society a case of advanced ectopic gestation treated by the same method. Dr. Herman had collected several instances in which in years gone by an extrauterine fœtus had been extracted through an opening in the vaginal roof; but Dr. Donald by opening the abdomen had completed and made certain the diagnosis and had thus made himself master of the situation. He (the President) asked if any opinion had been formed as to the source of the hæmorrhage.

Dr. **DONALD**, in reply, said that Dr. Walls, who was responsible for the after-treatment of the case, believed that the hæmorrhage came from a placental vessel. Though he had not discussed in his paper early tubal pregnancy he (Dr. Donald) expressed the opinion that the vaginal incision was safer than the abdominal in early cases, namely, up to the third month.

VULVITIS IN CHILDREN.

Dr. **DRUMMOND ROBINSON** gave the results of his investigation of 50 cases of so-called vulvitis in children. The condition was found to be most common in children under 5, common between 5 and 10, and uncommon over 10 years of age. In 41 of the cases (76 per cent.) the pus cells of the discharges contained cocci that presented characters which, as far as was known, were peculiar to the gonococcus of Neisser. The contagious character of the discharge was illustrated by several cases. The chief symptoms were painful micturition and pruritus vulvæ; occasional complications were ophthalmia, peritonitis, and arthritis. In most cases the inflammation appeared to be superficial to the hymen. Dr. Robinson expressed the opinion that the majority of cases of vulvitis in children were probably gonorrhœal in origin.

Dr. **BOXALL** said it seemed to him remarkable that if the whole of the 41 cases were to be regarded as gonorrhœal, only 1 showed evidence of conjunctivitis.

Dr. **SNELL** said that he had seen several cases of vulvitis in children occurring in families where in all probability gonorrhœal infection was impossible. The subjects were usually weakly, but the complaint was easily and quickly cured.

Dr. A. **ROUTH** thought that though at present these diplococci were indistinguishable from gonococci, it would be found that they were not really identical. He thought that vaginitis might be caused by infection from the vulva during incautious examinations.

The **PRESIDENT** said that Dr. Robinson's paper was important from the scientific and from the practical medico-legal aspects. He asked whether by culture experiments Dr. Robinson had confirmed the diagnosis. He called attention to a paper published in 1859 by the late Sir W. Wilde on some medico-legal aspects of purulent discharge in children. In Dr. Robinson's cases pain on micturition was recorded as a common symptom. Might not this be due to the inflamed state of the vulva and not to urethritis, which was not an essential feature in acute gonorrhœa in the female? Vaginitis was comparatively rare in the gonorrhœa of the adult.

Dr. **HANDFIELD-JONES** found it difficult to believe that over 70 per cent. of all vulvar discharges in children depended on gonorrhœal infection. The following points seemed to him to render the gonorrhœal theory doubtful: (1) The disease had not spread to neighbouring tissues; (2) it was readily cured; (3) the inguinal glands were rarely enlarged; (4) the disease was common in delicate, rare in robust children; (5) in undoubted infection during rape the disease was much more severe than in ordinary cases of vulvitis.

Dr. **ROBINSON**, in replying, stated that he did not think that the absence of vaginitis in these cases was an argument against their gonorrhœal nature, as vaginitis was rare in gonorrhœa in the adult. He did not agree with Dr. Handfield-Jones that most of these children were sickly; on the contrary, they were generally in excellent health. Absence of enlargement of the inguinal glands, and the ease with which the disease was cured, showed that the disease differed from that in adults. His views were based not on the clinical aspects of the cases, but upon bacteriological investigation.

SPECIMENS.

The following specimens were shown:—**Dr. Lea**: A Uterine Tumour expelled during delivery.—**Dr. Addinsell**: Microscopical Sections of an Ovary and Tube removed for the relief of intermenstrual pain.—**Dr. Amand Routh**: Early Pregnancy in the Uterus of a Bitch.—**Dr. Boxall**: Dermoid Tumours of both Ovaries.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF SURGERY.

R. L. SWAN, P.R.C.S.I., President, in the Chair.

Friday, December 9th, 1898.

COXA VARA.

THE discussion on Sir Thornley Stoker's paper on coxa vara, adjourned from the meeting of November 11th, was resumed by the **President**, who, referring to Sir Thornley Stoker's statement that they might couple these cases of osteomalacia occurring in adults with coxa vara—a disease of childhood and adolescence—said he himself had never seen osteomalacia, because his experience of any deformed condition of the femur had been an accentuation of the natural convexity of the femur from the habit of leaning on the left leg. He did not think that any practical surgeon would mistake morbus coxæ for coxa vara in infants or children, as coxa vara was a symptom of rachitis; and there would be other conditions, he thought, to mark the difference. For instance, in coxa vara there were no night cries; in morbus coxæ rotation invariably elicited great pain, but not in coxa vara. He thought that the pain was rather confined to the head of the bone, and that it depended on epiphysitis of the upper extremity of the femur in coxa vara.

Mr. Lentaigne questioned whether some of the cases of so-called morbus coxæ in early stages, which had been successfully operated on, were not merely cases of coxa vara. He had quite recently seen a case of coxa vara himself, which, he thought, might easily have been mistaken for early hip-joint disease.

Mr. T. Myles did not agree that the condition of coxa vara was easily diagnosed from morbus coxæ, for it must be remembered that until the condition was described the mistake must have occurred a great many times. As yet the condition had not been accurately defined. Apparently it was applied to all cases in which there was a change in the normal angle of the femur. If caused by osteomalacia or rickets he thought that it could not be called a separate disease.

Mr. Croly failed to see why coxa vara could not be diagnosed from morbus coxæ. He had seen many dozens of cases of morbus coxæ treated, and could not say that coxa vara had ever attracted his attention, What proof was there that cases which had been treated as morbus coxæ were really coxa vara? He did not believe that such had happened. He believed that cases which he had treated as morbus coxæ were morbus coxæ.

Sir W. Thomson said that the condition had undoubtedly been overlooked, and was different from morbus coxæ. He did not see why—although he admitted that there were certain cases in which there was plenty of evidence of this general condition—one could claim rickets as a cause when the condition was confined to the neck of the femur, and there was no evidence whatever in the rest of the skeleton of any rachitic condition. But he was satisfied that any condition in the neck of the femur which would lead to softening, whether inflammatory or pretuberculous, was sufficient to allow straightening of the neck or the reduction of the angle.

Sir T. Stoker replied.

THE OPERATIVE TREATMENT OF HERNIA.

Mr. M'Ardle brought forward the subject of the radical cure of hernia, basing his communication on the results in 342 cases. The ages of the patients ranged from 8 months to 85 years. Of this number but 1 died, and that was an instance of umbilical hernia in a man of 65, very stout, and with weak heart and atheromatous arteries. Mr. M'Ardle advocated (1) Free opening up of the inguinal canal, so as to have complete control of the internal ring; (2) interrupted suture of the internal oblique conjoined tendon to Poupart's ligament, leaving the cord in its normal position. The sac might be ligatured, sutured, or drawn through the external oblique after Kocher's method, but the fundus should be removed, as it could serve no useful purpose however placed. It was a grave mistake in Kocher's method to bring the sac down, and cause it to act as a wedge in the anterior part of the inguinal canal, and in all these cases where the sac was puckered, twisted, or invaginated, its retention was a danger, as proved by many instances of necrosis of the sac, delay of healing, and even of death. Mr. M'Ardle's belief was that the method of dealing with the sac was of no moment so long as the dangerous and ineffective methods mentioned was excluded. A Bantock's ligature placed on the neck close to the internal ring brought the peritoneum to its normal condition. Mr. M'Ardle stated his conclusions as follows:—1. Without opening up the inguinal canal no complete operation can be performed. 2. It is a matter of little importance what you do with the hernial sac; it has no bearing on the case; a new sac forms with the greatest readiness if at any point the mid-stratum of the abdominal wall is defective. 3. There is no evidence in favour of opposing the arrangements of Nature by displacing the cord. 4. To properly reconstruct the canal, the internal oblique and conjoined tendon should be brought down to Poupart's ligament, not merely to the edge of the external oblique. 5. The complete overlapping of the pillars of the external ring forms a firm basis of support for the healing of the underlying conjoined tendon.

The paper was discussed by **Mr. Croly**, **Mr. T. Myles**, **Mr. Ball**, **Mr. Tobin**, and **Dr. Knott**; and **Mr. M'Ardle** replied.

LIVERPOOL MEDICAL INSTITUTION.

W. MACFIE CAMPBELL, M.D., President, in the Chair.

Thursday, January 5th, 1899.

PERFORATING ULCER OF THE STOMACH.

Mr. Robert Jones related two cases operated upon for gastric ulcer, one of which recovered, and the other died fourteen days after operation. In the first case, a woman, aged 19, the perforation had existed for three hours, and was situated on the posterior aspect near the pylorus. Some partially-digested milk had exuded. There was no peritonitis. The ulcer was inverted and stitched, and the wound closed without drainage. The patient made an uninterrupted recovery. From the appearance of the ulcer, absence of anæmia, and previous history of tubercle, Mr. Jones suggested the possibility of the tuberculous nature of the ulcer. The second patient, a girl, aged 21, was operated upon fourteen hours after perforation. She was greatly collapsed; a large indurated perforation was found near the cardiac end of the lesser curvature on the anterior aspect. There was exudation of partially-digested food. Adhesions had formed with the liver and the abdominal parietes. There was considerable exudation of lymph, which had to be forcibly scraped. The ulcer was obliterated by a purse-string suture, fortified by Lembert stitches and completed by stitching omentum over the area. She progressed fairly well for fourteen days, when she vomited pus. An incision was made, and a perisplenic abscess containing foul pus was found. She was very collapsed, and died twelve hours later. The *post-mortem* examination showed the perforation to have quite healed. There was no communication between the wound area and the perisplenic and subdiaphragmatic abscess cavities. The diaphragm was burrowed through, and the lung opened into. There was no ulcer on the posterior aspect of the stomach. Mr. Jones agreed with the recent suggestion of Turner that the lesser sac of peritoneum should be irrigated and the posterior aspect of the stomach inspected in nearly all cases.

Mr. Frank T. Paul, while fully agreeing with Mr. Jones as to the value of early operation, thought it was sometimes possible to attain success after a longer delay than twenty-four hours. Stomach fluids in the peritoneal cavity were much less virulent than intestinal matter; the general depression was much less and the inflammatory changes were more plastic. He advised that more pains should be taken in drying out the peritoneal cavity than in flushing it; a complete and thorough flushing was impossible: when the soiling was general a drainage tube should be put in Douglas's pouch through a separate opening. In Mr. Jones's second case, a difficult and severe one, he thought it had been dealt with most ingeniously and it was only an accident that marred its ultimate success.

Myxœdema Treated with Colloid.

Dr. **Buchanan** related a case in a man, aged 54, treated with colloid matter according to Dr. R. Hutchinson's formula. The disappearance of symptoms was shown to be remarkable, and after four months' treatment the restoration to health was complete. The case was illustrated by a series of lantern slides demonstrating in a marked degree the condition of the patient before and while undergoing treatment.

Revolver Wound of Brain.

Dr. **Alexander** showed a calvarium from a man, aged 24, who was brought to the parish infirmary by the police from an hotel in the city. He had been found lying on a bed, semiunconscious and bleeding slightly from one nostril. A revolver was found on the floor with one chamber empty. There was no mark of any injury on his face, nor any discoloration from powder. He remained in a semi-conscious condition, and died the day after admission. *Post mortem* there was found a scarred fracture of the external table of the frontal bone, around which the periosteum was raised. On opening the skull a fracture of the cribriform plate of the ethmoid was found, and a bullet was discovered in the brain substance. Above it impinged on the internal table, and was only visible as a small indentation. The frontal lobes were much damaged.

Uterine Fibroid.

Dr. **Briggs** showed a fibroid weighing 13½ lbs., removed from a single woman aged 33. The operation was performed on November 26th, 1898, through an abdominal incision by hysterectomy, of which enucleation was the first step. The tumour reached low on the cervix, and encroached on the right broad ligament. The right ovary was cystic. As soon as the tumour was released from its capsule the large veins emptied their contents into the general circulation; there was little shock. The capsule and uterus appeared too big and too loose to be left behind with safety. The growth and uterus were originally equal in size to the pregnant uterus at eight months. In smaller growths the capsule and uterus might be left behind with safety, but enucleation alone of large growths has not yet been shown to be equally safe.

The Vaccination Act, 1898.

Dr. N. E. **Roberts** read a paper on the Vaccination Act, 1898, and the Local Government Board Order of October 18th. He deplored the attitude of hostility which large sections of the community had assumed towards vaccination. On the question of compulsion he was of opinion that, living under democratic institutions as they did, they must not be surprised if, now and again, the drawbacks of their methods of government should become manifest as well as its blessings. The duty of the medical profession was clear: it was by every legitimate means to instruct the people on this question. He particularly deplored the fact that large numbers of objectors were animated by something resembling a high enthusiasm, regarding their action as a kind of holy war, and in a neighbouring town thousands crowded for exemption certificates singing "Christians, awake!" and other hymns. It suggested on the humorous side, a town's meeting gathered to denounce the multiplication table as an unholy invention of the devil; but it had its elements of pathos in it—this potential unconscious slaughter of their innocents by loving parents. He explained the provisions of the Act and Order, and appealed for cordial relations between the public vaccinators and the private vaccinators under the somewhat trying circumstances of the public officer having to visit the homes.

The **President** said that probably no more retrograde step had ever been taken by Parliament—a step by which the majority had been handed over, bound hand and foot, to a fanatical minority. Calf lymph, he thought, was responsible for a certain amount of insufficient vaccination. He had used calf lymph exclusively during the last fifteen years, and required to operate a second time in about 15 per cent. This gave rise to dissatisfaction among the friends. What, again, was to be done with cases in which only one or two marks took? He generally recommended revaccination in four or five years. The importance of cleanliness in skin and instruments was now well understood, and everything should be done to remove prejudice against the operation.

Mr. **Rushton Parker** said that in England the public seemed determined to take the risk of small-pox for some of their children. Whether the Government were wise or not in adopting the recent Vaccination Act, it was evident that they were, as individuals, staunch adherents of vaccination, and only adopted this Act as being, in their expectation, more likely in the long run to maintain the practice of vaccination than the order for its compulsion upon a democratic community who largely refused to be coerced in this matter.

Dr. **Hugh R. Jones** called attention to two statements in the report of the Royal Commission: "That vaccination was protective against small-pox"; and "that vaccination could not be replaced at present efficiently by other preventive measures." There was, however, another side. Isolation, notification, disinfection, as subsidiary measures, ought to receive their full credit, and the hope of the future for the extinction of infectious diseases depended chiefly upon efficient sanitary measures.

Dr. **Hope** considered that the present grave condition in respect to vaccination was contributed to by the long period, extending over many years, which the Royal Commission took before publishing their conclusions. During these years the opponents of vaccination were extremely active, and unfortunately very successful. He pointed out that the Bill introduced by Mr. Chaplin differed very widely from the Act as passed—an Act which was in absolute and direct antagonism to the carefully-considered recommendations of the Royal Commission, whose exact words are: "We are of opinion that the State ought to continue to promote the vaccination of the people." And again: "We can see nothing to warrant the conclusion that in this country vaccination might safely be abandoned and replaced by a system of isolation."

Drs. **Smart, Archer, Permewan, Hill,** and **Grünbaum** also spoke.

NORTH OF ENGLAND OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

J. W. Martin, M.D., President, in the Chair.

Friday, December 16th, 1898.

Specimens.

Dr. **Donald** (Manchester) showed a Myoma of the Uterus, about the size of an adult head, removed by abdominal myomectomy. There was considerable difficulty in enucleating the tumour, the capsule measuring half an inch in thickness, and composed of hypertrophied uterine wall. There was very smart hæmorrhage from several vessels in the capsule. Dr. Donald also showed a Uterus removed by vaginal hysterectomy after perforation by sounds. The cervix was being dilated preparatory to curetting; there was no resistance at any part, and the sound passed easily 6 or 7 inches. An examination of the abdomen showed that the point of the instrument was in the abdominal cavity; a No. 12 dilator was introduced with the same result. As it was evident the uterine wall was perforated, and as the contents of the uterus were undoubtedly septic, the anterior vaginal fornix was opened up and the fundus uteri brought into view. Two large apertures which had evidently been made by the dilators were found in the fundus, and the uterine wall was so friable that volsella forceps very easily caused tearing. Vaginal hysterectomy was performed as the safest method of treatment. Probably the degeneration of the uterine wall was due partly to frequent childbearing and partly to septic processes following miscarriage.

Antistreptococcus Serum in Puerperal Septicæmia.

Dr. **Grimsdale** (Liverpool) read notes of a case of puerperal septicæmia treated successfully by injections of anti-streptococcus serum. The woman, aged 35, had an easy labour, followed by a rigor in forty-eight hours. Her medical attendant treated her energetically by washing out the uterus and curetting it, but the symptoms of high temperature, quick pulse, rapid wasting, and general serious illness persisted. On the ninth day of the disease she was admitted into the Royal Infirmary. Streptococci having been found in the blood, serum injections (10 c.cm.) were made into the flanks. After two injections the temperature (104°) and pulse (120) became normal, and the patient appeared convalescent. The injections were stopped. The temperature remained normal for twenty-four hours, and then rose gradually, so that in in three days it was 103°, and the pulse 120. While the temperature was normal streptococci were found in the blood. After recurrence of the fever injections of the serum (10 c.cm.) were given for fifteen days consecutively. The micro-organisms had then disappeared from the blood, and the injections were discontinued. At this time the temperature was raised to 101°, but gradually fell, and the patient was discharged cured. After admission to hospital no treatment was directed to the uterus, and beyond quinine no drug was used. Urticaria and severe pains in the limbs were complained of towards the end of the serum treatment, but this subsided in about a fortnight.

Dr. **NESFIELD** (Manchester) thought that the treatment of puerperal septicæmia by antistreptococcus serum seemed scarcely a natural plan, inasmuch as it was using an alternative solution of the same poison as produced the disease, and that those cases which lasted a long time usually ended in recovery under very varied plans of treatment.

Dr. **ARNOLD LEA** (Manchester) considered that since at one period the streptococci disappeared entirely from the blood, and returned again in a few days, a local source of infection must have been present, and that this was probably in the uterus itself, since there was no evidence of local pelvic trouble. He thought that if in similar cases the serum treatment failed and the patient was losing ground, removal of the uterus through the vagina would be the best treatment.

Dr. **FOTHERGILL** (Manchester), seeing that there was no physical sign or symptoms of any pelvic trouble, and that there was no foul discharge, considered that this might be one of those cases of infection by the bacterium coli commune through the wall of the intestine. Vaginal and uterine douching would be quite unnecessary in such a case, and when the streptococcus had once got into the blood the use of the serum was the proper treatment.

Dr. **GRIMSDALE**, in reply, stated that the streptococci were present in the blood continuously. There was no disappearance and reappearance.

PAPER.

Mr. **BISHOP** (Manchester) read a note on the Vagino-abdominal Incision *versus* Morcellation in some cases of Pelvic Surgery.

ULSTER MEDICAL SOCIETY.

JOSEPH NELSON, M.D., President, in the Chair.

Thursday, January 5th, 1899.

POST-NASAL GROWTHS.

DR. **CECIL SHAW** read a paper on post-nasal growths. The usual age for these growths was from 3 to 12. Boys were said to be rather more frequently affected than girls, but Dr. Shaw found that of 69 cases occurring in his own practice, 31 were boys and 38 girls. The predisposing causes and symptoms of the growths were fully discussed. No treatment was of any avail except removal of the growths. An anæsthetic should be used in all cases under 14 or 15. The best instruments are the short cutting forceps described by Dr. StClair Thomson in the BRITISH MEDICAL JOURNAL for March, 5th 1898, and Gottstein's curette of a small or medium size. It was well to have two curettes, one more curved at the top than the other, so as to reach the vault of the pharynx better. The gag was important. Chloroform was the best anæsthetic. The results of operation were usually most satisfactory, the great majority of cases showing immediate and marked improvement, though education was often necessary to restore nasal respiration. Recurrence seldom took place, except in very young patients.

Dr. **J. WALTON BROWNE** had seen alarming hæmorrhage, which stopped when the gag was removed. He thought the inferior turbinated bones were often at fault, and required touching with the electric cautery.

Professor **SINCLAIR** regarded the operation as serious in very young children owing to shock.

Dr. **MITCHELL** had seen a case of a young lady who had been operated on several years before for ear disease whose pharynx was simply scar tissue.

The discussion was continued by Professor **BYERS**, Dr. **ALLEN**, Dr. **KILLEN**, and the **PRESIDENT**, who said he usually operated without anæsthetic.

OPERATION FOR PERFORATED TYPHOID ULCER.

Dr. **E. COEY BIGGER** and Mr. **ROBERT CAMPBELL** read notes of a case of operation for perforated typhoid ulcer. The patient, a man aged 36, was admitted to the Union Fever Hospital on December 12th, 1898. He had been ill for over a fortnight. On the following day he was attacked with severe abdominal pain, accompanied by great tenderness and muscular rigidity. Laparotomy was performed ten hours and a-half later. At that time the temperature was 101°, pulse 108, and liver dulness had entirely disappeared. When the abdomen was opened gas and a quantity of yellowish fluid escaped. The intestines were intensely injected and covered with large patches of lymph. A perforation about the size of a pea, from which intestinal contents were freely escaping, was found in the ileum about 2 feet from the cæcum and half an inch from the mesenteric attachment. This was closed by two rows of Lembert sutures. Gauze sponges, wrung out of a solution of perchloride of mercury, 1 in 2,000, were employed to cleanse the adjacent coils of the intestine and the pelvis, from 8 to 10 ounces of foul-smelling yellowish fluid being removed from the latter. The lower part of the abdomen was irrigated with boiled water, and a glass drainage tube inserted. After the first twelve hours the patient was fed by the mouth as well as by the rectum. In three days his condition was fairly satisfactory; he took his nourishment well, there was no vomiting, flatus was freely passed, and there was no abdominal distension. Towards the end of the third day after operation his pulse began to fail, and he died on the fourth day. On *post-mortem* examination it was found that the signs of peritonitis had greatly diminished, and the perforation was securely closed, no water escaping when the bowel was distended under considerable pressure. The statistics of the operation were referred to, from which it appeared that there had been four recoveries out of twenty-three operations, and that in all four the patients had been convalescent. As all cases of undoubted perforation terminated fatally, the opinion was expressed that operation should be advised, not only in convalescence, but in the acute stage of the disease, if the condition of the patient previous to perforation were such as to give a reasonable hope of recovery from the fever, and if he were not moribund from peritonitis.

Dr. **MITCHELL** thought that operation from perforation during the acute stage of typhoid was hopeless.

Professor **SINCLAIR** concurred in this view.

Dr. **JOHN CAMPBELL** thought the proper question was, Does the patient's general condition (due to typhoid or other cause) warrant a fair chance of recovery after laparotomy for ruptured intestines? If so, he thought the operation should be performed.

NEPHRORRHAPHY FOR MOVABLE KIDNEY.

Dr. **JOHN CAMPBELL** read notes of a case of nephrorrhaphy for movable kidney. Miss McC., aged 37, was seen on June 25th, 1896, complaining of pain in the left lumbar region. The left kidney was found to be movable. Uterine fibroids and piles were also present. A kidney belt and pad were applied and worn without giving relief. In March, 1898, the patient still complained of pain in the left lumbar region, with frequent micturition and tenderness over the kidney. On June 23rd, 1898, the kidneys were exposed by a horizontal lumbar incision, and sutured to the muscular edges of the wound by fine points of silk. The wound was closed by three points of silkworm gut, and healed by immediate union. The kidney when palpated between two fingers appeared normal. Progress was good until the tenth day, when the temperature ran up, reaching 102° on the twelfth day, after which it rapidly fell to normal. This period of pyrexia corresponded to menstruation. When recently heard of, the patient was feeling well, but still had some pain in the region of the left kidney.

Kraske's Operation for Cancer of Rectum.

Dr. John Campbell also read notes of a case of cancer of the rectum removed by Kraske's operation. Miss B., aged 56, was seen on January 9th, 1896. She complained of symptoms of two years' duration, including bearing-down pain, hæmorrhages from the bowel, constipation, great pain on defæcation, and progressive wasting. The sigmoid flexure was found to be full of fæces. The rectum contained friable masses springing from the back and side walls, especially from the left, extending from the internal sphincter to a point about as high as the forefinger could reach, and forming a stricture through which the finger could just pass, as high as could be felt a sacral gland was detected. Free bleeding followed the examination. On January 21st the coccyx and lower end of the sacrum as high as the fourth foramen were excised, and the rectum laid bare. It was separated on all sides, and the peritoneum of Douglas's pouch carefully peeled off its anterior aspect, so that the peritoneal cavity was but slightly, if at all, opened. When the diseased portion had been freely excised, the gut was brought down and stitched to the anus. The hollow of the sacrum was then explored as high as could be reached, and the fat and glands removed. Silk was used throughout for ligatures and sutures, the skin wound being only partially closed so as to allow the wound to be plugged with iodoform gauze. Recovery was protracted owing to some suppuration about the sutures, but at the end of six weeks the patient's condition became good, and she rapidly gained in flesh and strength. For six months she had no trouble with the bowel, the sphincter acting well. After that, however, prolapse occurred, and she wore a Paul's truss. Her health remained good, and she had no symptoms of recurrence till she died from alcoholism a fortnight ago. Dr. Gray of Newcastle saw her a few days before death, and she then made no complaint regarding the bowel.

Nottingham Medico-Chirurgical Society.—At a meeting on December 21st, 1898, Mr. Price, President, in the chair, a paper was read by Mr. Morley Willis on Acute Infective Inflammation in Bone. The difficulty attending the early diagnosis of this condition was remarked upon, and stress was laid upon tenderness of the bone in the neighbourhood of an epiphysis, taken in conjunction with the other signs of acute disease, as being an important aid in forming an opinion. The pathology was usually an acute infective osteomyelitis occurring near the epiphysial line where pathological changes were prone to occur. The treatment should therefore consist of not merely incising the periosteum, but trephining the shaft of the bone near the epiphysial line, enlarging the opening if necessary and removing all the acutely inflamed medulla, irrigating with some efficient antiseptic, and lightly packing with gauze. A case was related showing the futility of the treatment which stopped short when the periosteum had been incised; the disease spread to the knee-joint, and the leg had subsequently to be amputated. This, it was believed, might have been averted had the bone been trephined in the first place. The paper was discussed by Messrs. Chicken, Mackie, A. R. Anderson, and the President. Mr. Chicken did not share the views expressed as to the pathology of the disease. Mr. Mackie related a case in which suppurative pericarditis followed the necrosis of a long bone; the pericardium was opened and drained, and the patient made a complete recovery. Mr. Willis replied.—Dr. W. B. Ransom showed (1) a patient, and read notes of the case, who had been affected with Paralysis of the whole of the Left Side, including the face, together with the right leg. The symptoms pointed to a thrombosis of the basilar artery, but he had completely recovered under treatment, only a very slight weakness of the left hand remained, and that was diminishing. (2) A Brain showing Sarcoma of the Cortex. The patient had improved for a time on potassium iodide but then became worse. An operation was undertaken but removal of the whole growth was impossible. (3) The Brain of a patient who had suffered from aphasia, which was discovered to be due to thrombosis of the "central" branches of the Sylvian artery.—Mr. A. R. Anderson showed: (1) Patient after Pylorectomy. Duration of the symptoms had been only three months according to the patient's statement. They had consisted of vomiting and pain; no blood had been vomited; there was great dilatation of the stomach at the time of operation. Previous to operation the stomach was washed out. The growth was excised, and union between stomach and duodenum was effected by sutures only. The operation lasted one hour and five minutes. Food was given by the mouth on the third day after operation. The patient left the hospital perfectly well in every respect, and had remained so up to the present time. A section of the growth showed it to be a spheroidal cell carcinoma undergoing colloid change. (2) Osteosarcoma of the Fibula removed by operation. Mr. Anderson also read notes of a case of Transperitoneal Uretolithotomy. This case was one in which the symptoms simulated closely those of appendicitis, of which there had been apparently several attacks. An operation for appendicitis was undertaken in a quiescent interval. The appendix was found to be quite healthy and normal, but on feeling about a stone was discovered lodged in the right ureter at the brim of the pelvis. The original wound was closed and allowed to heal, and when this had occurred another operation was undertaken for the removal of the stone in the ureter. An incision was made in the right linea semilunaris, and the bowels being kept out of the way with sponges, the ureter was incised, and three small stones were removed which formed a chain. The lowest one was of uric acid and the other two of phosphatic nature, soft and crumbling. The ureter was then closed by a continuous suture, and a flap of peritoneum was brought over the wound and sutured in that position; the abdominal wound was then closed. Recovery was uneventful and complete, and the patient remained perfectly well.—Mr. Chicken showed: (1) A case (with photograph) of Congenital Obstruction of the Ethmoidal Infundibula. An incision was made down the centre of the bridge of the nose, and the nasal bones were separated. A communication was then established between the middle meatus of the nose and the ethmoidal cells by drilling. The nasal bones were brought back into place and the wound stitched. Only a faint scar remained and the result had been good, but one side showed some signs of a tendency for the passage to close. (2) Some Abnormal Semilunar Cartilages removed from the knees of different patients; they appeared to be undergoing absorption. In some cases they were nearly loose, and Mr. Chicken thought it probable that this was one source of loose bodies in knee-joints. (3) Skiagraphs of three Ununited Fractures produced by direct violence. They had been wired with a successful result in every case. (4) Two specimens of Necrosed Bone. One was a minute sequestrum found in the centre of the shaft of a tibia in a small abscess cavity, containing at the time of operation only a little caseous material; the other consisted of the entire circumference and a considerable length of the shaft, and had been removed by operation, having been divided into two pieces to facilitate removal.

Laryngological Society of London.—At a meeting on December 2nd, 1898, Dr. F. de Havilland Hall, Vice-President in the chair, Dr. Dundas Grant showed Wall Charts for Teaching Signs of Suppuration in the Nasal Sinuses. Mr. Arthur Cheatle showed a Section of Cyst removed from the Naso-pharynx. Mr. Wyatt Wingrave exhibited (1) Sections of Enlarged Tonsils for inspection by the naked Eye; (2) Sections of Lupus of Larynx; (3) Microscopic Sections of Papilloma of the Larynx; (4) Microscopic Sections of Rhinoscleroma. Mr. Lake showed (1) a Specimen of Pachydermia Laryngis; (2) Tuberculous Larynx from a child aged 6 years; (3) Recurrent Nasal Tumour from female aged 23. Dr. Dundas Grant showed (1) a case of Empyema of Antrum cured by repeated irrigations by means of Lichtwitz's trocar and cannula; (2) a case of Chronic Empyema of the Antrum cured by intranasal treatment (anterior turbinectomy—Krause's trocar). Mr. Low showed X-Ray Photograph of Foreign Body (Silver Tube) in the Antrum of Highmore. Mr. Wyatt Wingrave showed a case of Spreading Ulcer of the Nose. Dr. Herbert Tilley showed a case of Syringomyelia, with Paralysis of the Right Side of the Palate and Pharynx and of the Right Vocal Cord. Mr. Bowlby showed a case of Hyperostosis of Maxillary and other Bones causing Nasal Stenosis. Dr. Willcocks showed a case of Paresis of the Left Side of the Larynx. Mr. Ernest Waggett showed a case of Varix or Nævus of the Posterior Faucial Pillar, etc. Dr. **HECTOR MACKENZIE** showed a case of Functional Hoarseness in a woman aged 37. Mr. **DE SANTI** showed a case of Papilloma of Tonsil. Dr. **BOND** showed (1) a case of Malignant Disease of the Nose in an old man. Radical operation on the nose and two operations for removal of glands had been performed, the patient having twice previously been shown to the Society, and reports made on microscopic sections of tissues removed. In May, 1898, the nose was clear of disease, but there was a large mass of glands in the left side of neck. This was cut down upon and removed with all adherent structures—namely, much of the sterno-mastoid, fasciæ, the internal jugular vein, and the spinal accessory nerve. The patient was now apparently free from malignant disease and in good health. (2) A case of Recurrent Papilloma of Larynx in a girl of 18.

REVIEWS.

AN AMERICAN TEXTBOOK OF GENITO-URINARY DISEASES, SYPHILIS, AND DISEASES OF THE SKIN. Edited by L. BOLTON BANGS, M.D., and W. A. HARDAWAY, A.M., M.D. Two vols. London: The Rebman Publishing Company; Philadelphia: W. B. Saunders. 1898. (Imp. 8vo; 300 engravings, and 20 coloured plates; pp. 1,230. 42s.)

THE first volume of this work contains nine articles. The first, on Urine Analysis, and a Consideration of the Urine in Surgical Diseases of the Urinary Tract, is by Dr. Paul Thorndike. The second, on Diseases of the Penis, is by Dr. B. F. Curtis. The third, by Dr. G. F. Lydston, is a long and elaborate article on Diseases of the Male Urethra, including a detailed account of stricture and its treatment. With regard to the treatment of stricture by divulsion, Dr. Lydston states that though that mode of treatment is not very popular at the present time among the leading surgeons in America, it has many advocates in England and on the Continent, "where," he is good enough to inform us, "urethral surgery is far behind that of this country." It seems a little strange, too, to find the author of this article speaking of "the extreme rarity of urethritis in the female." The next article, on Diseases of the Testicle and its Coverings, the Cord, and the Seminal Vesicle, is by Dr. Eugene Fuller. The inflammations of these organs are grouped together and considered under one heading—a "classification of inflammations in this connection," which Dr. Fuller states "is new and original;" it is also one which we hope will not be extensively followed.

The Diseases of the Prostate are well and fully treated by Dr. J. W. White and Dr. A. C. Wood. Respecting the much-discussed question of the best treatment of prostatic hypertrophy when operative interference is called for, the authors are of opinion that castration has given better average results than any other form of treatment hitherto employed. They also state that in their personal experience they have not observed any permanent mental change after castration. Vasectomy, they think, should be advised in certain cases in which castration is refused, and in those of the milder type, as the best alternative.

Diseases of the Bladder, including Anomalies, Cystitis, Tuberculosis, and Tumours, are ably dealt with by Dr. E. Martin and Dr. A. E. Taylor. In connection with the treatment of tuberculosis, it is laid down that as it is practicably impossible to render the anterior urethra entirely sterile, instruments should not be introduced into the non-infected bladder unless the surgeon is prepared to operate immediately in case the conditions are favourable.

There is a separate article on Vesical Calculus by Dr. F. S. Watson, and the various operations for its removal are well and adequately described.

The article on Diseases of the Ureter is in all respects excellent. It is written by Dr. C. Fenger, with the collaboration of Dr. S. C. Stanton. Signs, symptoms, methods of examination, and treatment, all receive due attention. There is also a copious bibliography appended to this article, which renders it altogether the most complete in the volume.

The concluding chapter, by Dr. P. R. Bolton, contains a useful and by no means too long account of the Surgical Diseases of the Kidney.

As almost always happens when the different chapters of a book are written by different authors, the various subjects are more or less unequally treated. The diseases of the urethra, for example, occupy more than three times the space allotted to those of the testicle, spermatic cord, and seminal vesicle combined.

The second volume of this work deals briefly with certain functional disorders of the male generative organs, of considerable importance in themselves, which, although they should be understood by medical men in practice, are not much amenable to treatment. A hundred and forty-seven pages are devoted to Syphilis, and there are five coloured plates showing the manifestations of syphilis on the skin, and a number of engravings showing various syphilitic conditions and the histology of syphilitic lesions. The syphilitic affections of the eye are illustrated by three coloured plates, in which primary lesions, gumma of the conjunctiva and sclera, ulcerated mucous patches, iritis gummosa, and parenchymatous keratitis are well shown. In one plate the appearances observed in the retina by the ophthalmoscope are illustrated.

The remainder of the volume—some 440 pages—is devoted to the treatment of skin diseases proper. There is the usual introductory chapter on the Anatomy and Physiology of the Skin, which is written by Dr. Bowen, and is well illustrated by engravings. After short notes on the general symptomology, general etiology, general pathology, general diagnosis, and on classification by Dr. Hardaway, the special part is introduced by a paper on Inflammations by Dr. Atkinson, in which the erythemata and erysipelas, pellagra, acrodynia, furuncle, carbuncle, malignant pustule, equina (glanders), pompholyx by Dr. Robinson (with an excellent woodcut), herpes by Dr. Winfield (with a coloured plate), pemphigus (with a coloured plate), and impetigo herpetiformis and dermatitis herpetiformis are discussed.

The section on Eczema is excellently written by Dr. Hardaway in not more than thirty-four pages, in which the varieties and their treatment are well described. Dr. R. W. Taylor writes of Xeroderma Pigmentosum, which is illustrated by two coloured plates. Dr. Winfield's description of Rhinoscleroma is illustrated by an engraving and also by a coloured plate.

Leprosy is described by Dr. I. Dyer, and illustrated by several characteristic engravings of the general appearances of the leper's skin; the histological appearances are reproduced from Leloir. Adenoma sebaceum is described by the same writer and illustrated by a plate. The histology, symptoms, and treatment of Epithelioma are described by Dr. Robinson, who also gives a brief description of Paget's Disease.

Every known skin disease is described, for the most part clearly and precisely, and copiously illustrated. The space alloted to each skin affection is proportionate to its importance, and is never too long, and the text bears evidence that the editors have been judicious in their selection of authors.

The volume claims to be a complete and authoritative exposition of the diseases of the skin, and its execution justifies the claim. In every respect it is brought up to recent date.

MECHANICAL PRACTICE IN DENTISTRY. By W. BOOTH PEARSALL, F.R.C.S.I. London: Ash and Sons. 1898. (Royal 8vo, pp. 414, 168 illustrations. 18s.)

THIS manual, being of a strictly technical character, will only interest dentists, as the field which it covers is one with which the medical practitioner has but little concern. The book is well printed and in general respects nicely got up, but a great deal of space and a good many illustrations have been devoted by the author to plans of his friends' workrooms, to tools in everyday use, and to other matters which, to us at all events, do not appear to be worth illustrating; more especially is this true of the numerous figures of bad examples of artificial teeth which, unhappily, are familiar enough to everyone.

Indeed, a good deal of the book is open to this same criticism; the author too frequently figures and describes difficulties and things to be avoided, and then stops short of giving the means by which they may be avoided. Thus, he gives a well-known portrait of George Washington as a striking example of a face disfigured by badly-devised artificial teeth; but little is to be gleaned as to how to avoid a similar disaster, and that little is scattered about.

With the exception of about twelve pages of formulæ, etc., the whole appendix, amounting to over a hundred pages, is nothing more than excerpts from trade catalogues, and might have been omitted without the smallest loss.

The blunder of calling alum sulphate of potash occurs several times; and amongst omissions we may note that it is strange to find no mention of making special trays for taking models in all but the easiest cases, a thing which has become a matter of everyday practice; while the chapter upon obturators for cases of cleft palate is very inadequate, and contains not even a casual mention of Suerson's obturator, which is of such frequent applicability. The mechanical treatment of fractures of the lower jaw also might well have received more attention, as might also the process of vulcanisation of various sorts of rubber.

Perhaps the most useful chapter is that dealing with bridge work, though it is difficult to see why the large gold plate figured on page 205 should have been called a bridge at all.

Thus, although much will be found in the book that is profitable reading for the dental practitioner, its perusal produces a sense of disappointment, and a feeling that the writer possesses the knowledge and the ability to have written a far more useful book, which could have been conscientiously recommended to a student as his textbook.

It is of course easy to find fault, and we do so largely because we feel that by a more judicious selection of matter the author has it in his power, should the book reach a second edition, to effect immense improvement in the work. As it is, he has produced a book containing a good many "tips" and a great deal of very useful information, but as a systematic treatise upon the subject it can scarcely be regarded as a success.

RECHERCHES CLINIQUES ET THÉRAPEUTIQUES SUR L'EPILEPSIE, L'HYSTÉRIE, ET L'IDIOTIE PENDANT L'ANNÉE 1897 AU BICÊTRE. [Clinical and Therapeutical Researches on Epilepsy, Hysteria, and Idiocy during the Year 1897 at the Bicêtre.] Par BOURNEVILLE, avec la collaboration de MM. DARDEL, JACOMET, METTEBAL, J. NOIR, PHILIPPE, RELLAY, SCHWARTZ, TISSIER, et WUILLAMIER. Vol. xviii. Paris: aux Bureaux du *Progrès Médical*, et Felix Alcan. 1898. (Demy 8vo, pp. 228. 18 woodcuts and 20 plates. Fr. 6.)

THE course of instruction hitherto given has been pursued during the past year, but no new accomplishments have been introduced. On January 1st, 1897, 483 children were under treatment; during the year 73 were discharged, 2 escaped, 24 were transferred to other institutions, and 17 died, and there remained, including the admissions, on December 31st, 1897, 459 inmates. The thymus and thyroid glands have been given to several patients, but no conclusions on the result have at present been formed. At the Fondation Vallée, where the same system of instruction as that pursued at the Bicêtre is given, there were on January 1st, 1897, 162 children; of these, 26 were discharged, 7 were transferred to other institutions, and 19 died, leaving, including the admissions, on December 31st, 1899, 186 who were undergoing treatment.

There are twelve essays by Dr. BOURNEVILLE and his assistants on cases of special interest. One of the most interesting is a contribution to the study of true and false porencephaly. Three cases are related, two of which suffered from the false, and one from the true, form of porencephalus. In all three a microscopical as well as a naked-eye examination was made, and the appearances observed are described. Following this are two papers giving an account of the microscopical appearances in two cases; one of chronic meningo-encephalitis or meningo-encephalitic idiocy, the other of left hemiplegia and consecutive epilepsy with atrophic sclerosis, pachymeningitis, and meningo-encephalitis, in which there was a strong history of intemperance in the parents. The amount of space given to these microscopical appearances is a feature of this volume, and we hope it will be continued in future years, as information on this subject is much wanted. Dr. Bourneville must be congratulated on the excellence of the plates, which illustrate the conditions of the brains found in some of the cases.

NOTES ON BOOKS.

BOOKS ON CHEMISTRY.

Elementary Chemistry, Practical and Theoretical, by T. A. CHEETHAM, F.C.S. (London: Blackie and Son. 1898. Cr. 8vo, pp. 128. 1s. 6d.) is a useful little school book. It is described as a first year's course, and the use of the balance is rightly introduced at a very early stage. The various experiments given lead up to the laws of chemical combination which are enunciated in the last chapter. Chemical symbols and formulæ are not introduced.

The first three chapters of *Physical Chemistry for Beginners*, by Dr. C. M. VAN DEVENTER, translated by R. A. LEHFELDT, D.Sc. (London: Edward Arnold. 1898. Crown 8vo., pp. 146. 2s. 6d.) are devoted to the laws of chemical combination, Avogadro's law, and molecular weights. These subjects would, of course, be discussed in any good textbook of chemistry. The fourth chapter deals with thermochemistry, and this is the special feature of the book. The fifth chapter treats very briefly of osmotic pressure, of electrolysis, and of the determination of molecular weights by observation of freezing and boiling points of solutions. The last two chapters treat very briefly of photography and of the periodic arrangement of elements. It is to be regretted that the authors rashly state (p. 36) that when a molecule of an organic compound contains an asymmetric atom of carbon the compound is optically active. Van't Hoff and Lebel never claimed as much as this, but only the converse, namely, that active organic compounds always contain asymmetric carbon. A statement and its converse are not necessarily both true. The book is especially to be recommended to anyone wishing to make a beginning in the study of the important question of the relation between chemical equilibrium and the heat evolved in chemical reactions. The reader is supposed to possess very little mathematical knowledge.

Dr. JOHN MUTER'S *Short Manual of Analytical Chemistry*, now in its eighth edition (London: Simpkin, Marshall, Hamilton, Kent, and Co., and Baillière, Tindall, and Cox. 1898. Royal 8vo, pp. 244. 6s. 6d.) was originally written for the use of pharmaceutical students preparing for the examinations of the Pharmaceutical Society. This edition has passed far beyond the original limits, and is now a book in which not only the pharmaceutical but also the medical student and analytical chemist will find concise information upon the qualitative and quantitative analysis of salts, of alkaloids, of certain organic bodies used in medicine, and a general sketch of toxicological procedure. In addition to these are given the methods of ultimate organic analysis, and special processes for the analysis of water, air, food, drugs, urine, urinary calculi, and gases. Polarisation and spectrum analysis are also treated. This edition has been made to accord with the *British Pharmacopœia, 1898*, and in all cases where the legal standard of drugs has been fixed these have all been noted.

Dr. W. R. JACK has published under the title *Methods of Staining the Nervous System* a translation of Dr. BERNHARD POLLACK'S work (Glasgow: F. Bauermeister. London: Whittaker and Co. 1898. Demy 8vo, pp. 143. 4s.), to which we have already referred. As has been pointed out, the author in his second edition, from which the translation is made, has increased the value of his book by some omissions and several useful additions, notably a chapter on the retina. In this chapter the histological methods which have been found most useful in dealing with the retina are set forth with admirable clearness, and here, as, indeed, throughout the English edition, the translator has been very happy in his rendering the clearness of the description of methods being carefully reproduced, a matter by no means always easy. To those who are working at the histology of the nervous system some of the newer methods added in this edition (such as von Frey's gold chloride process for the demonstration of medullated nerves and their nerve endings) will probably be of value, and no doubt to English readers the English edition will be a boon. The translator has wisely "departed to some extent from literal exactitude" in the effort to render the sense of the original as faithfully as possible, and he is to be congratulated on the result of his efforts.

A NEW THEORY OF CEREBRAL ACTIVITY AND SLEEP.

Amœboid Movements in Nerve Cells.

Since Wiedersheim's alleged direct observation of amœboid movements in the nerve cells of the superior œsophageal ganglion of leptodora hyalina about eight years ago, the theory of the amœboidism or plasticity of the neurons has been advanced in various forms by many neurologists, chiefly with the object of supplying a physical basis for the different phases of cerebral activity and sleep. Rabl-Rückhard, who was one of the earliest writers upon the subject, supposed that relations are established between nerve cells by means of a reticulum of fibrils connected with the smallest ramifications of the protoplasmic prolongations, and that during functional activity of the brain these prolongations are in a state of amœboid movement, enabling them to break their connections, to push out in new directions, and to establish new temporary connections in correspondence with every change in the association of ideas. This theory seems untenable upon many grounds, one of the chief of which is that it is contrary to the established doctrine of the connection of the neurons by contiguity. The theory of Lépine, who has endeavoured to explain the sensory anæsthesia and motor paralysis in hysteria by a temporary shrinking of the extremities of the neurodendrons, causing interruption of contact and consequent suspension of function, is free from objection. He thinks that sleep may be explained in the same way. Duval has advanced a similar theory, but he does not regard actual contact as an indispensable condition of transmission, but only a certain degree of contiguity, increase and diminution of which respectively facilitates and hinders transmission. Several authorities, among whom Kölliker is specially to be mentioned, have argued that nerve cells are incapable of such amœboid movements. Others have attempted to obtain experimental evidence upon the question. The first to do so was Ramon y Cajal. His results, as well as those of several others who have experimented upon similar lines, have been entirely negative. Demoor, on the other hand, has obtained positive results, finding that the action of chloroform, morphine, chloral, and prolonged electrical stimulation caused loss of the spinous processes or gemmulæ of the dendrons and the formation of moniliform varicosities. This moniliform condition disappeared with a return to normal conditions. Stefanowska has obtained very similar results. Querton concludes from his experiments that physiological excitations cause a contraction of the neurodendrons, which increases in proportion to the intensity and duration of the stimuli, being greatest in fatigue. This retraction results in suppression of the associations, and is the direct cause of sleep.

In the October number of the *Journal of Mental Science* Dr. Ira Van Giessen likens the nerve cell to an octopus. By retraction of its tentacles it is capable of throwing itself out of circuit; by expansion of them again the circuit is restored. He thinks that "this retraction and expansion of the arm of the nerve cell, in groups, systems, and communities of brain cells, drawing it in or out of the circuit of transmission of nervous impulse, is the final unveiling of the secret of a whole host of mental phenomena which hitherto have seemed mysterious to the last degree."

Lugaro's Recent Observations.

Dr. Lugaro of Florence, to whom neurological science already owes so large a debt, in a recent paper[1] gives an account of an experimental investigation which he has made into this subject, and discusses the physiological deductions that may be drawn from the results obtained. He also passes in critical review the various theories previously advanced and the experimental observations that have been made. He maintains that no form of movement comparable to that of amœbæ and leucocytes can possibly occur in nerve cells. He points out that a strongly-retracting process could not easily again find its normal position, so that there would be established varying and accidental relations, which could not but result in psychical disorganisation. He thinks that functional plasticity in nerve cells must be limited to their extreme appendages—that is to say, to the gemmulæ of the protoplasmic processes and the terminal arborisations of the axis-cylinder process. Thus while excluding every amœboid movement in the strict sense, he maintains that there occur in these minute terminal organs slow movements of increase and little movements of propulsion and retraction sufficient to establish and break contact. The positive observations of varicose changes in the protoplasmic processes from the action of such influences as fatigue and hypnotics he thinks are to be attributed in most instances to imperfect fixation of the tissues. That such varicosities can be produced artificially by defects of technique he has himself conclusively demonstrated, as has also Ramon y Cajal.

The Functional Plasticity of the Neurons.

It is to Lugaro that we already owe what is perhaps the most valuable contribution yet made to the question of structural modifications of the cytoplasm of the nerve cell in different functional states. It is to him also that we are now indebted for what is at least a very great advance in our knowledge of this closely-related question of the functional plasticity of the neurons. Recognising how in all previous methods of experimentation it was impossible to be certain that the nerve cells were fixed in any desired physiological state, he has brought to his aid a new and ingenious technique, which would almost appear to represent the limit of possible attainment in the direction aimed at. His method is to inject the carotid artery of the living animal with Cox's solution, the fluid employed in that modification of Golgi's sublimate method which is now so largely used by neurologists. The result to the animal is instantaneous death, and the nerve cells of the brain are, as Lugaro aptly expresses it, surprised in whatever functional state they happen to be. An immediate fixation is obtained, and the sublimate impregnation is afterwards completed by immersion of pieces of the brain in the same fluid for the necessary three or four months. Working with this method, Lugaro has carried out a large number of experiments upon dogs, some of which were normal, others subjected to the action of chloroform, ether, morphine, or chloral. The results that he has obtained are of a very striking character, and the physiological deductions that they have led him to formulate are such as must challenge the attention of neurologists throughout the world. The chief facts observed were as follows: Absence of grave alterations affecting the cell bodies, the protoplasmic trunks and their larger branches in all cases; the occurrence of protoplasmic prolongations devoid of gemmulæ and vari-

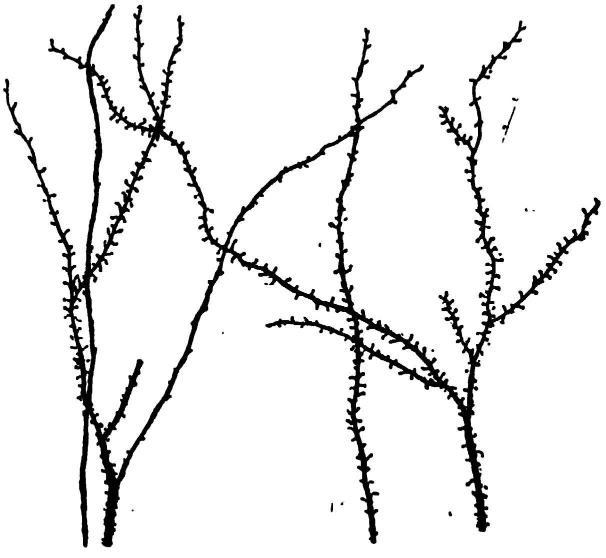

Fig. 1.—Terminal dendritic expansions of the molecular layer of the cortex of a dog killed by the cerebral injection of Cox's fluid (Lugaro).

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[1] E. Lugaro, Sulle Modificazioni Morfologiche Funzionali dei Dendriti delle Cellule Nervose, *Rivista di Patologia Nervosa e Mentale*, August, 1898.

cose, in very small numbers, and with diffuse localisation in normal dogs killed in a state of consciousness, and in dogs under the influence of morphine; paucity, and even complete absence, of gemmulæ in many of the protoplasmic branches in normal animals; the presence of slight varicosities covered with gemmulæ in normal animals, but more especially in those under morphine; copious investment of the protoplasmic processes with gemmulæ and almost complete absence of varicosities in animals profoundly narcotised with chloroform, ether, or chloral. He thinks that retraction of the gemmulæ is clearly related to the physiological action of stimuli. It was found to occur most markedly in animals which were put into a state of psychical excitement before the injection was made into the carotid, and which must also have suffered a momentary direct stimulation of their cortical nerve cells by the injection of Cox's fluid, a stimulation which was evidenced in normal dogs by a sudden brief spasm of the muscles. The fact that this isolated retraction of the gemmulæ presented itself in a diffuse manner in the dogs which received by means of the injection of the Cox's fluid an instantaneous stimulation of the cerebral neurons, induces him to believe that this retraction must normally occur in a relatively very short time, and that probably its duration corresponds to the duration of the stimulus. Retraction of the gemmulæ and the formation of varicosities he regards as two independent processes. Varicosities result not from a rapid reaction to stimuli but from a protracted state of excitement. They are slow and late formations corresponding to a condition of fatigue. They were very abundant in dogs subjected to the action of morphine, a circumstance which is to be explained by the fact that this substance acts upon dogs as a violent stimulant rather than as a narcotic, large doses causing excitement and convulsions. If retraction of the spines is an expression of activity and the presence of varicosities in the fine branches an expression of fatigue, it is natural that both should be absent in profound narcosis obtained without antecedent excessive fatigue.

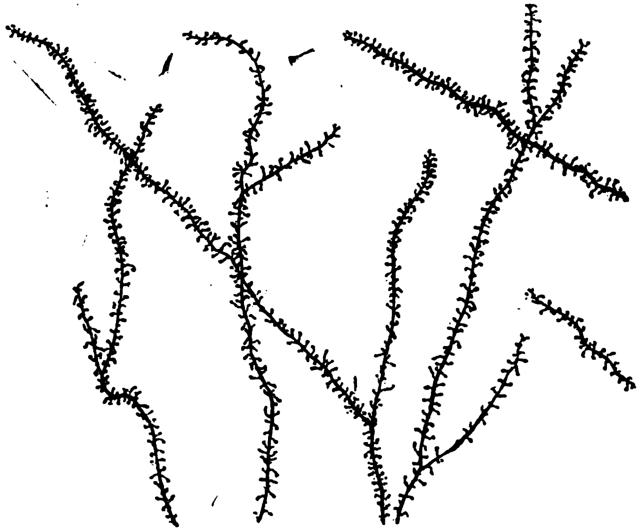

Fig. 2.—Terminal dendritic expansions of the molecular layer of the cortex of a dog under chloroform (Lugaro).

LUGARO'S THEORY OF CEREBRAL ACTIVITY.

Lugaro maintains that when a neuron is in a state of physiological excitement, all its connections do not come into play. If they did so there could not be a logical association, but only a chaotic one, from the "rise in the mind of elementary representations increasingly numerous, and growing with formidable geometrical progression at every transmission from element to element." It is necessary, therefore, that in functional activity the great majority of possible connections should be interrupted in order to impede the access of other stimuli which would be able to deviate or suppress the one that is being elaborated in the cell, and that they should be restored whenever the active state of the single element ceases, in order to render possible the reception of new stimuli from any other province. It is to be understood that the retraction of the spines and the interruptions that follow them are of a relative character, and that the space interposed can still be forded by stronger stimuli, such as require an immediate response in the interests of the organism. Thus are to be explained the occurrence of a logical succession of ideas, the fixing of the attention upon a particular set of ideas, the incapacity of ordinary stimuli to enter into the field of consciousness when the attention is directed to another object, and how stimuli of abnormal intensity are able nevertheless to force a way in, to break the pre-existing current of ideas, and to initiate another current of psychical associations. In normal conditions of psychical activity retractions and expansions of the spinous appendages must occur throughout the brain in almost inconceivable numbers. Every spinous process represents for the nerve cell the ingress of an elementary impression. It is known that every external nervous impression diffuses itself widely in the centres, and implicates a very large number of connections. Consequently every elementary state of consciousness ought to be accompanied by modifications of the spines in a very large number of neurons. On the other hand, these modifications should not last longer than the said fact of consciousness, and the gemmulæ ought to be able with the greatest readiness to resume their state of expansion, prepared to receive new impressions. It is probable, he thinks, that in a state of normal activity the mobility of the neurons is limited to these short and rapid movements of the terminal appendages, and that more ample modifications, such as the formation of varicosities, occur not as an integral element of the anatomico-physiological mechanism upon which the state of consciousness depends, but only as an added element, which has probably a purely disturbing action.

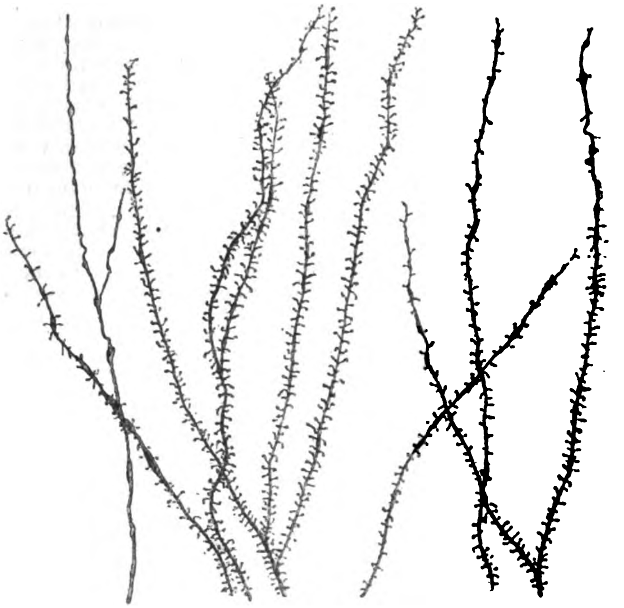

Fig. 3.—Terminal dendritic expansions of the molecular layer of the cortex of a dog under morphine (Lugaro).

LUGARO'S THEORY OF SLEEP.

Lugaro abstains from further discussion of these physiological questions until the completion of other experiments that he is carrying out. He proceeds, however, to consider at some length the light which this new view of the mode of action of the neurons probably throws upon the functions of the centrifugal fibres in sensory nerve trunks—a matter which need not be entered into here. The remaining subject of special interest dealt with by Lugaro is his theory of sleep, with an exposition of which he concludes his paper. He maintains that the results of his experiments prove that the theories of Demoor, Querton, and others, according to which sleep is associated with a retraction of the small protoplasmic prolongations and consequent interruption of contacts, are erroneous. He believes that the inter-neuronic suspension of contact is of quite secondary importance, and that the characteristic condition in natural sleep, as in that induced by chloroform, ether, or chloral, is a general expansion of the gemmulæ, with exhaustion of their contractility at the beginning and renewed capacity to contract at the end of sleep. It is not necessary that the suspension of psychical activity and of functional relations between neuron and neuron should depend exclusively upon the suspension of anatomical connections. It is possible that fatigue and the concomitant auto-intoxication are combined physiologically with a state of greater torpor of those movements that are characteristic of activity. If these premisses are admitted, then it is easy to comprehend the mechanism of sleep in its various phases. If the brain is fatigued, if in it there abound those regressive products which are an obstacle to function, that retraction of gemmulæ which isolates the systems of neurons that are in a state of functional activity and which secures the momentary autonomy of the functional association and of the corresponding psychical process will be carried on in a much more torpid manner and less completely. It follows that the logical association of ideas and the activity of the attention are rendered more difficult. Asssociation will become more and more delayed and incoherent. What is done by the autotoxic action of regressive products can be done also by the inactivity of the neurons through want of stimuli. If the representative psychical activity is weak and there is a scanty inflow of external stimuli, the central elements assume their attitude of repose—that is, of greatest expansion; the contacts are multiplied, the *processi nervosi* become more and more dispersed and incoherent, the associations are enormously diffused, the stimuli subside without provoking reaction, and there results the unconsciousness of sleep.

It is the new conception of cerebral activity as involving a cutting off of the great majority of interneuronic connections and the strengthening of the current traversing the few that are essential for the autonomy of the functional association for which we are chiefly indebted to Lugaro. As we realise something of what such a mechanism implies, the mystery of how the brain works begins at last to be in some degree intelligible.

No doubt many objections might be raised against Lugaro's theory; but, based as it is upon strong experimental evidence, it deserves at least the most careful consideration of all who are interested in such questions. If it is true, it throws a flood of light upon many problems which have hitherto been almost entirely obscure, and most of all perhaps upon some parts of the dark domain of mental disease.

INVESTIGATIONS ON MALARIA IN ITALY.

REPORT BY PROFESSOR CELLI.

THE first annual report was presented by Professor Celli to the Italian Society for the Study of Malaria at its first meeting on December 3rd, 1898. Professor Celli, who occupies the Chair of Hygiene in the University of Rome, stated that the report embodied the results of the investigations on malaria made by members of the Society during the past season of fevers—that is, from the beginning of July, when the Society was formed, till the date of the meeting. It was known that in recent years the life of the parasites of malaria in the blood of man and of animals had been well recognised. Notwithstanding this, two problems of enormous interest for humanity had remained enveloped in darkness—namely, how the malarial germs live in the environment, and how from the environment they return to infect man and the lower animals. When these problems are solved, said Professor Celli, one may hope to find the mode either of killing the maleficent germs where they lodge by means of direct drainage, or of protecting man and the useful animals from them. He proceeded:

But may not this latter scope of preservation, the supreme end of all the studies, also be reached by another way—that is, by means of substances which give artificially that immunity which Nature sometimes concedes both to man and the lower animals? In reference to the first problem it must, above all, be remembered that the Mexican authors Smith and Kilborne have demonstrated, and Koch has confirmed, that certain ticks are undoubtedly the vehicle of bovine malaria.

As to the vehicles of human malaria, in the Institute of Hygiene at Rome the numerous and repeated attempts to reproduce malaria in birds by means of the inoculation both of malarial earths and of cultures of amœbæ which there are found were always fruitless; and water as a vehicle of malaria was also excluded, which has been abundantly confirmed elsewhere. On the other hand, some authors had already thought that mosquitos were in some way connected with the biology of the malarial parasites. Thus, Laveran and Manson had maintained that man is infected by drinking water contaminated by mosquitos, in which, after the puncture and the sucking of malarial blood, the infective parasites are developed as an intermediate host.

Bignami, on the other hand, by the process of exclusion and with indirect proofs, came to the conclusion that malaria bears itself in respect to man as if it were inoculated by mosquitos, and Bignami and Dionisi have also, since 1894, endeavoured directly to prove this; but through want of means they have been unable to continue their researches; and in the past year Dionisi has only been able to initiate some experiments which were favourable to the hypothesis of inoculation.

Meanwhile, under the wise guidance of Manson, Ross of Calcutta succeeded in determining the cycle of life of the malarial parasites of birds in the body of a particular species of mosquitos.

The direct proof of the possibility of transmission of human malaria by these insects was then more than ever urgent; and fortunately it was also possible, thanks to the means that the Society from its initiation had been able to put together.

Our members were able to institute experiments in two ways: that is, to investigate how malarial acted in relation to a certain number of men living in a highly malarious place, and protected in an absolute way from the bites of insects; and to investigate if individuals never subject to malarial fevers, living in a healthy place and bitten by mosquitos captured in malarial places, would catch the fever.

The first mode was attempted by Fermi in the Pontine marshes, but many difficulties were met with in carrying out experiments in a rigorous way. The second was therefore adopted. In a room of the Ospedale di S. Spirito individuals were made to sleep who had resided for some years in the hospital, and who never had had malarial fevers. In this room adult mosquitos brought from malarious places or developed from larvæ collected in the Campagna were set free.

Thus four experiments were made from the end of July onwards. The first on two individuals, with adult mosquitos captured in Porto, was interrupted after a few days for want of sufficient material.

The second, in one man only, with mosquitos developed from a collection of larvæ, was continued from August 8th to the 28th, and was interrupted when the patient had a slight rise of temperature with a sensation of cold and *malaise*, which ceased without further consequences. The third, on a man named Sola, was conducted in the same way from August 24th to September 19th, being interrupted when Sola began to suffer from *malaise* and headache, with a slight rise of temperature. In Sola also all this remained without result. Analogous experiments and with like negative results were made by Fermi at Terracina and by Grassi at Rovellasea. Meanwhile, starting from the consideration that whether the mosquitos truly inoculate the malarial parasites, in the localities where malaria develops there are several species to be found, Grassi undertook a series of comparative researches in the most desolate parts of Italy, during the past æstivo-autumnal malarial season. He came to the conclusion that in the malarious places several species of mosquitos, large and small, exist which do not find the suitable conditions for reproduction in non-malarious places. Taking into consideration the abundance of the above-mentioned species in the season of fevers, Grassi came to the conclusion that these species must be held to be extremely suspicious. They are: the anopheles claviger, the culex penicillaris, and the culex malariæ. To the bites of these three species, captured in Maccarese, the man Sola, in vain bitten by other mosquitos, was subjected by Bignami in association with Grassi.

This experiment lasted from September 28th to October

21st. On November 1st Sola was seized with grave malarial fever, of which he was perfectly cured by means of quinine; in his blood were found parasites of the æstivo-autumnal species. The attendant in the laboratory of comparative anatomy who went to capture the three above-mentioned species of mosquitos, and which he captured as they bit him, was meanwhile also infected with æstivo-autumnal fever.

Grassi has also classified the mosquitos used in the negative inoculation experiments, and he has found the culex pipiens to be the most common of the mosquitos which are diffused even in non-malarious places. He states that the grey mosquito which Ross has proved to be the propagator of the malarial parasites of birds in India is none other than the culex pipiens. Well, Ross himself has seen that the parasites of æstivo-autumnal fevers of man do not develop in the body of this mosquito.

These researches, conducted with all the rigour and with all the precautions possible, give the first experimental proof of the fact that malaria is produced by inoculation; they demonstrate besides that the culex pipiens, the most common mosquito, is innocuous for man, and they indicate how those species which Grassi has found exclusively in malarious places are capable of transporting the infection.

Is malaria contracted solely by inoculation? Is it certain that inoculation is the only means up till now experimentally demonstrated? *A propos* Bignami has made other researches directed to the obtaining of new proofs for or against the theory of inoculation. Thus he has made some experiments which demonstrate that the malaria parasites of the blood do not resist even a brief desiccation; still more he has seen that in the peribronchial glands of individuals coming from highly malarious places no form is found which might be interpreted as of a parasitic nature such as might be presumable if the malaria germs were inhaled like dust.

In his turn Bastianelli has been occupied, together with Bignami, with the morphological study of the parasites of malaria, putting it in relation with the research on the biology of the parasites external to man; directing it, therefore, principally to these parasitic forms which, according to the opinion of many, are destined to ensure in the environment the life of the parasites, that is, the semilunæ of æstivo-autumnal fevers and the flagellate bodies.

Opinions varied in the structure of the semilunæ, and nothing was known of the structure of the flagellate bodies in man.

The results of these beautiful morphological researches may be summarised in a few words:

1. The semilunar bodies constantly contain chromatin, which is found in the central part of the semiluna in a clear space that is the nucleus of the parasite; this result was constantly arrived at with the study of the preparations in which the humidity swelled the nucleus and its chromatin, and Grassi and Feletti have arrived at the same conclusions with other methods.
2. The flagella are constituted principally of a protoplasmic part and of a central part of nuclear substance.
3. The flagella derived from the masses of chromatin of the nucleus of the semilunæ and of the large bodies not divided of tertian, which become swollen, reach the periphery, and lengthen in the form of flagella.
4. Some flagellates exist, where flagellum is constituted exclusively of protoplasm, the central part remaining undivided constituted of the chromatin of the semilunar body.

This observation may be invoked as supporting the doctrine that the flagella have importance in the propagation of the species external to man. Meanwhile it is certain that Bastianelli, Bignami, and Grassi have succeeded in observing the cultivation of the semilunæ of man in the body of the anopheles claviger. Consequently Grassi maintains that this large mosquito with four spots on its wings, already declared by him to be the true index, the true spy of malaria, is the definite host of the malarial parasite of æstivo-autumnal fever, and is, therefore, a terrible enemy of humanity.

(*To be continued.*)

PROFESSOR CHANTEMESSE, of the Pasteur Institute, Paris, has been promoted to the grade of Officer of the Legion of Honour.

LITERARY NOTES.

ACCORDING to the *Publishers' Circular*, the number of new books relating to medicine and surgery published in 1898 was 160, while that of new editions was 36. In 1897 the new books numbered 152, and the new editions 59.

That ancient and most respectable but somewhat dingy periodical, the *Archives Générales de Médecine*, has with the advent of the new year renewed its youth, or, to speak more accurately, has assumed an outward form more worthy of its inward excellence. It now appears as a large and handsome journal, well printed on good paper, while its contents show no falling-off in point of scientific value from the high standard which has been maintained by the *Archives* since the beginning of its career.

Another medical periodical which has, in accordance with the law of journalistic evolution, undergone expansion, is the *Journal of Mental Science*, which clothed in a new cover and with a larger page, presents a greatly improved appearance.

At a meeting of the New York Academy of Medicine on December 15th, 1898, Dr. A. Jacobi announced that a very rare and valuable book had just been presented to the library of the Academy by Dr. Lothar Voss, one of its honorary Fellows. Dr. Voss returned to Germany thirty years ago, being at the time a surgeon of note. He was the second person in New York who practised tracheotomy as a part of the systematic treatment of croup. He has been collecting rare and valuable books all his life, but the one just presented by him to the Academy is considered the best "find" of them all. The book, which deals with the lymph vessels, is by Gaspar Aselli, who discovered these vessels on July 23rd, 1623. He also discovered the valves, and noted that they ran in the opposite direction to those of the veins. Aselli was born in 1581, and died in 1626. The book was printed in 1627, and is said to be the first one containing coloured anatomical plates. It was reprinted twice, the third edition being in 1640, but these two later editions were decidedly inferior to the first. The work had been believed to be almost extinct. There was one copy in the University of Leipzig, and a defective copy in the library of the University of Breslau. The book just given to the Academy is one of the two copies of the first edition now known to be in existence. The Surgeon-General's Library, Washington, D.C., contains a copy of the inferior third edition of 1640.

Mr. Rider Haggard's powerful novel *Dr. Therne*, which was recently reviewed in the BRITISH MEDICAL JOURNAL, has received a mark of approval of a somewhat unusual kind. At a meeting of the Jenner Society held in Gloucester on December 22nd, 1898, Mr. G. E. Lloyd-Baker in the chair, the following resolution was passed unanimously:

> The members of the Executive Committee of the Jenner Society desire to express their appreciation of the recognition of the work of the Society by Mr. Rider Haggard, in the dedication to its members of his powerful story, *Dr. Therne*.
>
> They also desire to assure Mr. Rider Haggard of their warm sympathy with his just and vigorous protest against the dangerous agitation carried on against vaccination, by which many thousands of persons have been misled, and have been induced to deprive their children of the only certain protection against a virulent and fatal disease.
>
> The Committee congratulate Mr. Haggard upon his uncompromising exposure of this evil, and trust his book may have a large circulation, as being calculated to lead a considerable section of the public, who cannot be otherwise interested in the subject, to give serious consideration to a matter of urgent and overwhelming importance, affecting, as it does, the health and lives of multitudes of hapless children who may be exposed to the infection of small-pox without the protection afforded by vaccination.

The *Phonographic Record* for January contains the valedictory address of Sir William Gowers, the retiring President, and the introductory address of Sir William Thomson, the newly-elected President of the Society of Medical Phonographers. Dr. Thomas Eastes records an interesting case of diabetes insipidus which was successfully treated by a six-days' administration of ½-drachm doses of liquid extract of ergot. The same number also contains a symposium by Drs. Atchley, Porritt, Strother, Goyder, Joseph, and Spooner upon the duties of the medical examiner towards the proposer, and an article upon reporters' errors.

THE PREVENTION OF TUBERCULOSIS.

DARLINGTON.

THE Deputy Mayor of Darlington (Dr. Manson) presided on December 23rd, 1898, at a meeting in the Council Chamber, convened in support of the Association for the Prevention of Consumption and other Forms of Tuberculosis. Amongst those present were Dr. Lawrence (medical officer for the borough), Dr. Smale (Honorary Secretary Darlington Medical Society), Dr. Hern, Dr. Martin, Dr. Thompson, and Dr. J. Hartley.

The **CHAIRMAN** said they had read a good deal about sanatoria for the treatment of patients suffering from tuberculosis, and the idea was abroad that the end-all was the erection of such buildings. To begin with sanatoria was, in his opinion, to take hold of the wrong end of the stick. If they were erected—and that could only be done at great expense—they might not be able to fulfil the expectations of the non-medical public. They might cure some people, but perhaps not all that was anticipated. It was to the prevention of the contraction of the disease that their most strenuous efforts should be directed, and he hoped the outcome of that meeting would be a further meeting, with a view of drawing public attention to it.

Dr. **SMALE** explained the objects of the National Association for the Prevention of Tuberculosis and the methods by which it proposed to carry them out.

After Dr. **HERN**, Dr. **JOHN HARTLEY**, and Mr. **GAWAN TAYLOR** had spoken, the **CHAIRMAN** explained that he did not oppose the erection of a sanatorium, but he thought it one of the latest steps.

The **VICAR OF DARLINGTON** (the Rev. F. W. Mortimer) in proposing a resolution:

> That the meeting approves of the efforts of the Association to check the spread of the disease, and to promote the recovery of those suffering from tuberculosis,

thought it the duty of those who had the welfare of the people at heart to forward such projects. The only question in his mind was how far they as a town could afford to erect and maintain a sanatorium. The suggestion thrown out, of joining with other towns might, however, be a feasible one.

Dr. **LAWRENCE**, in seconding the resolution, gave in his adherence to the idea of educating public opinion, and of proceeding more in the direction of prevention than cure. It would be necessary to educate farmers in the question of the supply of pure milk, and he ventured to suggest that if the farmers were able to-day to guarantee milk pure they would get double price for it.

The resolution was carried unanimously.

Mr. C. H. **LEACH** proposed:

> That they determine to form in Darlington a branch of the Association. and that a provisional committee be formed to draw up a constitution and report to a further meeting.

£20,000 would be required to build a sanatorium, and Boards of Guardians and sanitary authorities having powers to send persons to such a place, paying for their maintenance out of the rates, he felt sure many of them would only be too glad to avail themselves of those powers to aid in the recovery of patients.

Mr. **ED. WOOLER** seconded, and suggested that farmers in buying cattle should obtain a guarantee of freedom from disease. The test was applied to animals shipped to America and Canada, and it could easily be applied within this country. His experience was that farmers who did do so before sending cattle to market obtained better prices.

This resolution having also been unanimously adopted, a provisional committee of nine was formed, consisting of Dr. Manson, Dr. Lawrence, Dr. Smale, Rev. F. W. Mortimer, Mr. R. C. Pearce, Mr. Gawan Taylor, Mr. Hill, Mr. C. H. Leech, and Councillor Wooler.

HULL.

At a meeting of the Hull Sanitary Committee on December 23rd, 1898, Alderman **FRASER** in the chair, the medical officer reported that he had issued a circular of precautions against the spread of consumption. It was resolved that the circular be distributed in every house in Hull.

Alderman **SHERBURN** remarked that the mortality through consumption in the town had decreased 2 per cent. during the last three years. He claimed credit to the committee for the decrease.

MANCHESTER.

At the monthly meeting of the Sanitary Committee of the Manchester Corporation held on December 28th, 1898, Mr. Alderman **WALTON SMITH** presiding, a deputation was introduced representing the Manchester and Salford Sanitary Association who urged upon the Committee the desirability of steps being taken to reduce the mortality rising from phthisis and tuberculous disease. The deputation included Dr. Leech, Dr. Dixon Mann, Dr. Sawers Scott, Dr. Williamson, Dr. Wild, Dr. Brown, Dr. Lea, Mr. John Angell, and Mr. T. C. Abbott (Hon. Secretary). There was a full attendance of the committee, and there were also present the Medical Officer of Health (Dr. Niven) and Mr. Rooke, Superintendent of the Sanitary Department of the Corporation.

Dr. **LEECH** said they attended as representing the Manchester and Salford Sanitary Association to ask the Committee to consider the desirability of adopting some further means than those now taken for diminishing the mortality from phthisis and tuberculous disease. Looking at the last report of the medical officer of health, he found that 1,112 people died from consumption in Manchester during the past year, and that about 1,600 died of phthisis and tuberculous disease. When they came to consider what an enormous amount of misery was thus caused, and what an enormous amount of loss of labour was produced by it—how many people were reduced to poverty, and what an immense cost it was at present to the community—he thought there was just reason to ask whether more could not be done than was now done. In England, speaking generally, there was now a feeling that much more was required to be done than had been done in the previous century for the treatment of consumption. It seemed to them, in the first place, that now the cause was known, something more might be done with a view to prevent the spread of the disease. Provision should be made for the segregation of a certain number of cases if possible. They believed much might be accomplished by segregation. The establishment, again, of sanatoria for dealing with phthisis might do much in the way of education, because they might become teaching places, as it were, where people would be taught how to deal with the causes of infection when they returned home. It was most desirable that there should be a process of education, and they believed that by means of sanatoria, by segregation, and also by method of notification, phthisis might be attacked more vigorously than it had been hitherto. It might be said that enormous cost would be entailed, but they should remember the immense cost the disease was to every municipality, and the amount of misery and the loss, direct and indirect, it produced. In view of these facts, he believed that the provision of some means of preventing the disease, even at the expenditure of a considerable amount of money, would be a gain and not a loss to the municipality.

Dr. **DIXON MANN** also spoke.

Mr. **GRIMSHAW**, a member of the Committee, said what was needed was some alteration of the Public Health Act, in order to bring phthisis into the same category as other infectious diseases.

Dr. **NIVEN** pointed out that all that was necessary was that phthisis should be added to the list of infectious diseases. Proposals to that effect had been refused by the Local Government Board, and until sufficient pressure was brought to bear it would not be carried out. No doubt a great public authority such as that of Manchester could exercise a distinct influence in bringing about the possibility of notification.

After some remarks from Dr. **WILLIAMSON** and Dr. **SAWERS SCOTT**,

The **CHAIRMAN** said the subject had been under the consideration of the Committee, but its magnitude was rather appalling. He supposed that no fewer than 3,000 or 4,000 persons suffered from the disease in Manchester; but, notwithstanding, he believed that the attempts that were being made to undermine it were having effect. He did not know what steps the Committee might take, but he could assure the deputation that they would take the views they had laid before them into consideration, under the advice of their medical officer. He was quite sure that publicity was of great importance. They must take the public with them, and therefore they would be glad of the assistance of all those interested, so that there might be a wide public co-operation in the endeavour to deal effectively with this disease.

Dr. **Leech**, in expressing to the Committee the thanks of the deputation, said that they hoped at some future time that a conference might be called to which all those bodies might send representatives in order to discuss the whole question.

DUNDEE.

At a meeting of the Poorhouse Committee of Dundee Parish Council, on December 26th, 1898, Mr. E. **Scrymgeour** moved that a Committee be appointed to consult with Dr. Mackie Whyte, the visiting medical officer of the poorhouse, and obtain from the authorities connected with the recently-formed Association in London on the question of consumption all possible information on the subject, and make any recommendation they thought fit as to dealing with poor persons suffering from the disease.

The motion was adopted, and a Committee consisting of the four conveners, the Chairman (ex-Bailie Macdonald), and Mr. Scrymgeour, was appointed.

LAMBETH.

A report on tuberculosis and its prevention has been presented to the vestry of Lambeth by the medical officer of health for the parish, Dr. Joseph Priestley. After pointing out that tuberculosis in Lambeth causes far more deaths than all the notifiable diseases put together, Dr. Priestley offered the following suggestions:

(1) That a circular letter be sent round to all the medical men in Lambeth, pointing out that the vestry is prepared to disinfect (free of cost) all rooms (and contents) recently occupied by patients suffering from tuberculosis, and which have become unoccupied owing to the deaths or removals of such patients, when requested to do so by the medical men or others in attendance. (2) That a circular letter be sent to the person or persons in charge of public institutions in Lambeth, pointing out the nature of this disease, and the importance of having disinfection carried out, and other means adopted, for the prevention of this disease spreading to others, and offering disinfection (free of cost) by the vestry's officers where it may be necessary. (3) That a circular letter be sent to the occupiers of those houses in which deaths from tuberculous disease are reported week by week to the medical officer by the Registrar-General, offering disinfection (free of cost) by the vestry. (4) The issuing of leaflets (pointing out in simple language the danger of the disease and the ready means at hand for its prevention), to clergymen, district visitors, school teachers, etc., as may be necessary.

Dr. Priestley's report was adopted by the vestry at a recent meeting, and the recommendations above set forth are now being carried out.

SOUTHWARK.

At a meeting of the St. Saviour (Southwark) Board of Guardians on January 5th, Mr. Redman gave notice that at the next meeting he would move the following resolution:

> That having regard to the large number of cases of tuberculous disease which find their way into establishments under the care of the Poor-law guardians, and the danger of infection incurred by non-tuberculous patients, it is desirable that some central institution should be established to which all cases of tuberculous disease should be removed. That with the object of eliciting the views of the various Boards of Guardians upon the subject and of providing for concerted action, a conference be convened by St. Saviour's Board of Guardians, to which each metropolitan board be invited to send delegates.

EDINBURGH.

In Scotland, as is well known, the honour of having taken the lead in establishing a sanatorium for consumptive patients on the open-air system belongs to Edinburgh. The Victoria Hospital for Consumption and Diseases of the Chest at Craigleith has now been in existence for some four years, under the direction of a representative committee, which includes the names of Sir Alexander Christison as President, Sir Thomas Grainger Stewart, Drs. Joseph Bell, Clouston, and Halliday Croom, and with the services of Drs. R. W. Philip and G. L. Gulland as honorary physicians, and of Mr. David Wallace as honorary surgeon. The report for the year 1897-98 states that since autumn, 1894, when the hospital was opened, up to March 31st, 1898, 297 individual cases have been received for indoor treatment. A considerable proportion of these have been restored to health, as evidenced by their being able to resume and continue regular work. Many more have been instructed how to treat themselves, and brought well on the way to recovery. With a number of these the hospital continues in touch, the patients reporting themselves once or twice weekly until the cure is confirmed. The outdoor treatment continues to form a leading feature of the hospital. The experience of another year gives further proof of the fact that the system can be carried out with perfect success in spite of the rigour of the winter and spring months. In the out-patient department, the number of individual cases attended to since the opening of the hospital has been 6,996. The hospital and the out-patient department have done much by practice and by the distribution of printed instructions to spread knowledge regarding the causes and the rational treatment of consumption. The report states that a marked increase in the number of early cases which present themselves at the out-patient department, and a diminution in the frequency of hopeless ones, have already been noted. A large proportion of the more advanced and poorer cases must be treated at their own homes. During the years to which the report refers the number of such attendances was 6,404.

It is clear that the Victoria Hospital is doing excellent work not only in the relief of sufferers from consumption, but in the dissemination of knowledge of the means of limiting the ravages and preventing the spread of the disease.

SOUTH AFRICA.

It has more than once been pointed out in the **British Medical Journal** that consumptive patients are not infrequently sent to South Africa when they are in a stage of the disease in which there is little prospect of their deriving benefit from the climate. At a recent meeting of the Hospital Board, Capetown, Dr. **Anderson**, the house physician, stated that a large number of such patients came to the hospital, and he found it hard to send them away. Not a few of them were penniless when they landed from the steamer. At the hospital, at the time he spoke, there was a little boy dying of phthisis, who had been sent out by his friends with only 10s. in his pocket. Such desperate cases were not, it was believed, sent out by medical men. They were patients who staked all in the hope of a cure. A speaker at the meeting described patients as arriving at the Cape in a friendless, exhausted, and almost lifeless condition. It was hoped the English newspapers would notice the matter in order to check this exodus, from which so little good can result.

THE EXTIRPATION OF BOVINE TUBERCULOSIS.

At the annual meeting of the American Public Health Association Dr. Irving A. Watson, of Concord, N.H., read a paper entitled Some Observations from Practical Experience with Bovine Tuberculosis in New Hampshire. He gave a brief history of the official recognition of bovine tuberculosis in New Hampshire and presented the following deductions: (1) That it is impossible to eradicate bovine tuberculosis, but that it may, without inflicting too great a burden upon the State, be reduced to a degree that will subserve the interests of the stock raisers and likewise protect the public health; (2) that a very small percentage of animals infected with tuberculosis in any way endangered the public health, and that the indiscriminate slaughter of the cattle reacting to the tuberculin is wholly unnecessary, inasmuch as many of them either recover or the disease is permanently arrested; (3) that a proper sanitary condition of stables and stable enclosures would do more towards preventing the spread of bovine tuberculosis than any other measure that could be adopted; (4) that the danger from infection from bovine tuberculosis may be reduced to very small proportions, if not wholly eradicated, by sanitary measures, inspections, and physical examinations by the State, in co-operation with the local authorities; (5) that such inspections once inaugurated could be maintained without an expense that would be burdensome to the State.

Presentation.—Dr. Arthur N. Davis, formerly Medical Superintendent of the Plymouth Borough Asylum, has been presented by the officers and staff of the asylum with an engraved electro-plated soup tureen and entrée dish, as a token of their esteem on the occasion of his appointment as Medical Superintendent of the Devon County Asylum.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1899.

SUBSCRIPTIONS to the Association for 1899 became due on January 1st, 1899. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, JANUARY 14TH, 1899.

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SECONDARY EDUCATION AND THE PRELIMINARY EXAMINATIONS.

II.—THE PROPOSALS OF THE GOVERNMENT.

To define secondary education with accuracy is not only beyond our own powers, but also apparently beyond those of head masters. In a Joint Memorandum drawn up by representatives of the Incorporated Association of Head Masters, and of the Association of Head Masters of Higher Grade Schools and Schools of Science, adopted by both Associations, and issued in a parliamentary return by the Education Department, it is laid down that the differentiation between primary and secondary schools "should not be based upon the subjects taught, but upon the aims of the school as exemplified in the character of the education, and upon economic and school-age conditions." Primary schools are those attended by the children of the industrial classes, either elementary, such as the Board or the National schools, or higher grade, such as those which the School Boards have set up in many towns. Secondary schools are those which train boys who will go on with their schooling till 17 or 18 years of age, and who will eventually "take up higher industrial employment," such as engineering, or will "engage in mercantile, scientific, or professional pursuits." Secondary education, in other words, is the education we give our own children, and the schools they attend, whether they be kindergarten schools or preparatory schools, or grammar schools or public schools, are secondary schools.

There is therefore no question of the importance of secondary education to medical men, both privately as parents and as members of a profession which is recruited from secondary schools.

At the present moment a beneficent Government takes considerable care that the children of the industrial classes shall be thoroughly well taught. Whether voluntarily or compulsorily, large sums of money are drawn from our pockets for the education of other men's offspring, and an army of inspectors is employed to make sure that the money is well spent. But the education of our own class is entirely left to take care of itself. We have no means of knowing whether in any given school either the teaching, or the food, or the sanitary arrangements are adequate, beyond the opinion of private persons who may be well informed or may not.

It cannot be said that the matter is of slight importance, nor that it is very well as it is. Not only to each father and to each profession, but also to the nation at large it is daily becoming plainer that good education is a sheer necessity for survival. And the curious and perhaps unexpected fact is now well known in many other special branches beside our own that to reap the advantage of a technical training it is indispensable to have had a good general, or, to use the parliamentary phrase, a good "secondary," education. So far for its importance. As to its present state, while we are glad to say that in the last fifty years great advance has been made, there is no question that the general result is still highly unsatisfactory.

To take first the question of the subjects taught, the great mass of our schools are still bound hand and foot to classics, which, though excellent in many respects and for many boys, are quite inadequate in some points, and to some natures wholly unsuited. To many boys a classical training means six years of a lounging idleness unadulterated by one trace of interest, uncheered by one ray of success, ending in a state of mind which practically owes all its good qualities not to the teaching received in school, but to the training out of school. The result is often good, but it is absurd that it should not be very much better.

Secondly, while the system of teaching has in many ways improved it leaves still much to be desired. The greatest advance has been made in the preparatory schools. Boys who go to these before entering public schools are often better taught than they ever were or will be at any other period of life. They are indeed in some danger of overteaching and also of overfeeding, for in these schools the boarders are sometimes revictualled six times a day, but on the other hand the arrangements for exercise and the sanitation are of the best. But most of these masters know that when their boys go to a public school they will for the first two years learn practically nothing. They will at the end of that time be reading the same authors and be doing the same sums as when they left the preparatory school. Where the fault lies is difficult to say, but that there is a waste somewhere is plain, and the same thing is equally clear from the phenomenal idleness possible at a public school and from the phenomenal dunces who may issue from it.

It is high time, then, that the question should be taken up, and the State is alone able to do it. By a system of rewards and punishments, it should be possible to work the same improvement in secondary, as has already been brought about in primary, schools. The result would mean far more to us, and we think even more to the country at large than the reform of primary education.

We are glad to say that there are signs that some steps will be taken. Last session the Duke of Devonshire introduced two small Bills into the House of Lords, which he wished to be discussed in the recess, and which he promised to bring in again this year. The proposal of the Government is to establish a Board of Education, which shall deal with the whole of education in England and Wales, and shall replace the Education Department, which takes cognisance of primary education alone. The second is a Bill to establish a Teachers' Registration Council, which is practically modelled on the General Medical Council. It is to consist of eighteen members, six of whom are directly elected by the teaching profession, and six by the Universities, and is to admit teachers to the register on a degree or certificate of general attainments, and another of efficiency in teaching, both granted by some university or other satisfactory body, is not itself to hold examinations, and is to remove from the register for offences.

According to the Duke's scheme, then, those who wish to pursue teaching as a profession will be expected to register. There is no means of preventing unregistered persons from teaching except by pressure exercised through the Board of Education. In the case of endowed schools, or schools under the Charity Commissioners, the power of the Board would entirely depend upon the Charity Commissioners, since they alone deal with the funds of such schools. In the case of private schools, the Board would have no power at all.

Besides these Bills another was brought in by private members in the House of Commons. This Bill was promoted by the Incorporated Association of Head Masters, and adopted by the Head Masters' Conference, the Hebdomadal Council of Oxford and other educational bodies. It provides, first, a Central Board and Advisory Council of forty-five, representing by equal numbers the Crown, the universities, the professions, local education authorities, and the teachers; and secondly local secondary education committees, under the council of the county or county borough. Money may be granted for secondary education both by the central and by the local authority. Secondary schools are to be registered, classified, and inspected. Secondary teachers are to be registered. The Headmasters' Conference recently held at Shrewsbury added to the principles set forth in this Bill, by unanimously adopting a resolution that elementary and secondary education should be regulated by separate departments. "The danger was[1] lest the whole organism of education should be dominated by those trained in the methods and inspired by the ideals which had governed the development of elementary education."

The two chief points in this Bill are the provisions for central and for local control. If it be feared that our schools will become uniform by the employment of too much red tape, it may perhaps be urged that the local influence will in this respect counteract the central. But unless the Board makes minute regulations for study, which is not very likely, it can hardly have much effect in the production of uniformity of type. Compulsory inspection of the education and sanitation of all secondary schools as contemplated by the Bill, and from which only seven great public schools would be exempt, is a more startling procedure. As is usual in all such cases, it would probably press hard on many schools of the less expensive sort. It may be inferred that it would lead to the more frequent employment of graduates as teachers, and to the alteration of a considerable number of old-fashioned buildings. At present in 1,958 boys' schools the percentage of graduated teachers is only 55.9, and a large increase in their numbers implies a large additional outlay. In sanitary matters inspectors from a Central Board are well joined to local representatives, but are often obstructive when in sole authority.

Local control, though it arouses much opposition in certain minds, is a matter of prime necessity. It will not apply, or at any rate, should not apply, to schools conducted for private profit, and which will receive no grant, nor to those public schools which are national and not local in character; but it will be of great value in the case of those which, like the grammar schools, were meant to be, and are, of local use and interest. Many of these have degenerated into second-class boarding schools, and it requires local spirit to set them on their feet again well equipped for their original purpose. The money grants to be made out of funds set aside for this purpose will probably be applied by the local authority in a way more suited to local needs than the Central Board would suggest. And on the advisory council the local authorities would, with the teachers, prove a valuable check upon the bureaucracy of the Board. Local control has long been recommended by Parliamentary Commissions, and it is to be hoped that now that it has been on the one hand urged by the head masters, and on the other approved by the County Councils' Association, the lukewarm feelings of the Government, which the Duke's speech indicated, will be stimulated sufficiently to include it in their Bill. Like every other Government, they are not likely to risk their places for a reform in which the public evince no interest. Give them evidence of public interest and they will be glad enough to do what is wanted. For this it is before all things necessary that we should realise that the better education of our children is a matter which affects us alike as citizens concerned for the future welfare of the country, and as individuals with a natural desire to receive good value for the money we expend.

THE LUNACY LAWS AND BORDERLAND CASES.

The case of Regina *v.* Reichardt, tried at Kingston-on-Thames on January 4th, 5th, and 6th, is one of considerable importance in its bearing on the administration of the lunacy laws in England. The outline of the case—which resulted in a verdict in favour of Dr. Reichardt—is as follows: A single lady, about 30 years of age, went to India on a visit for a considerable time. On her return to England, after a short stay with her friends, she determined to begin training as a nurse probationer. She began her work, but at an early date the matron heard that she had been depressed, and considered her to be unfit to be left alone. She was therefore placed under supervision and then sent to a medical relation. She seemed depressed but not insane at this time; she, however, managed to obtain laudanum and nearly killed herself. She recovered and was seen by Dr. Goodhart, when, she seemed quite reasonable and sorry for what she had done. She was then on his recommendation sent to Dr. Reichardt's, where she was placed under constant supervision, and in rooms in which the windows were stopped and light bars were already placed. Not liking to keep a patient who had already attempted suicide, Dr. Reichardt asked that a specialist might be called in to decide as to the certifiability of the case. Dr. Savage, after an interview with the patient, decided that her condition of mind, though unsound, was not such as would warrant her being certified as insane. On the strength of this Dr. Reichardt kept the lady, who steadily improved, and in fact, was so well as to be allowed to go about the house alone, to join in various social amusements, and to go visiting with Mrs. Reichardt. This improvement was maintained; but still it was recognised that the patient was not stable, and as menstruation was still absent she was treated as requiring supervision. Unfortunately she saw a paper containing news from India of a distressing nature, and from that time she was worse. In the end she managed to escape from a window and drowned herself in the most deliberate manner.

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[1] *Times* Report, December 24th, 1898

This is, we believe, a correct summary of the essential points of the case. The accusation made against Dr. Reichardt at the instance of the Lunacy Commissioners was that he received and detained for profit a person of unsound mind. At the trial the chief point of interest was the interpretation of the term "unsound" mind. Mr. Carson, the counsel for the defence, made it clear that a distinction must be made between unsoundness of mind which is insanity and unsoundness of mind which is not. There can be no doubt that hysterical women are unsound in mind, but it is equally certain that few would like to certify hysterical patients as insane. It was admitted that the patient had been treated kindly and in every way satisfactorily; but the end was suicide, and the counsel for the prosecution pointed out that if she had been certified—and, we presume, also placed in an asylum—her life might have been saved.

There must ever be cases which are on the border line —which, as Mr. Carson said, must be a very broad line. In such there must always be a doubt as to whether the individual is certifiable or not. The general and special physician must decide, and when every care has been taken to decide this it is hardly just to proceed against a medical man who has taken all reasonable and legal means to safeguard himself and the public. Public bodies, such as the Lunacy Commissioners, may no doubt be actuated by two very distinct motives in instituting prosecutions. On the one hand it may be desired to punish offenders, or on the other to warn those who are inclined to offend. Judging from the opening speech of the prosecuting counsel the Commissioners in this case were actuated by the latter motive. This method of proceeding bears very hardly on the individual, but we may congratulate Dr. Reichardt on having been completely vindicated by the verdict of the jury.

The prosecution will undoubtedly arouse fresh interest in the present state of the lunacy law by showing the need of a clearer understanding between law and medicine on some points. It is now nearly a hundred years since the mechanical restraint of the insane was found to be intolerable. In the course of the evolution of English society we seem now to have reached another stage in which certain legal restrictions, which are irksome fetters to good treatment of borderland cases, should be relaxed. The time is at hand when it will have to be recognised that some alternative to certification is required. It will be replied that mere certification inflicts no harm on anyone and does no injury to the patient. This is not always or generally true; in many cases it is the reverse of the truth. If a patient is certified and treated in private or single care the fees are probably double those required for an uncertified patient. Further many persons in business or public employment lose their means of living if certified, and many girls who have ephemeral attacks of hysterical depression or excitement are not only, if certified, doomed to live single and isolated lives, but their sisters, and even their brothers, are placed under a ban.

We trust the time is at hand when some system will be put into force which will render it possible in England, as it is already possible in Scotland, to place patients suffering from temporary or slight mental disorder under care for fixed periods without certification, but with safeguards which will commend themselves to lawyers. The Joint Subcommittee on Incipient Insanity of the British Medical Association and the Medico-Psychological Association has already worked out a plan for doing this, and there can be no doubt that a good system of notification to the Commissioners, as contrasted with certification, would be of great value by rendering it possible to submit cases of incipient or doubtful insanity to suitable treatment in doctors' houses at an early date when the hope of recovery is greatest. The machinery would be of use for dealing temporarily with all cases on the borderland, cases such as that of the unfortunate lady whose death gave rise to the recent prosecution, in whom skilled opinion recognises unsoundness of mind not amounting to insanity.

SAFEGUARDS AGAINST ANTIVACCINATION.

IT is not surprising that alarm is being felt and expressed in many quarters as to the probable effects of the increased neglect of vaccination which seems likely to result from the operation of the vague and lax conscience clause of last year's Vaccination Act. As a result of such alarm, various measures are being proposed or adopted for the purpose of helping to counteract, or to obtain protection from, the evils which will naturally result from last session's parliamentary misdeeds. The Peabody trustees, for example, object to receive as tenants people whose children are not vaccinated, or older persons who have not been revaccinated, and they have given a notice to quit to a tenant who has taken advantage of the conscience clause. Evidently they do not accept the antivaccination view that sanitation can be trusted as a preventive of small-pox, but if antivaccination orators will now pay heed to the experiences of the Peabody dwellings, they may get some useful platform data if only they ignore the trustees' proceedings regarding vaccination.

A correspondent of the *Standard* lately suggested the formation of a Vaccination Guild amongst householders, pledged to employ only "properly protected" domestic servants. This is all right so far as it goes, but it should be understood that, as regards persons of the age of domestic servants, the proper protection must include revaccination, if primary vaccination is not recent. Another correspondent of the same journal suggests a much wider sphere of action for such an association, the pledge being proposed to include refusal to let houses to "conscientious objectors," refusal to employ them, and refusal to do business with them. Refusal to let houses to unvaccinated persons has, as we have seen, been initiated by the Peabody Trust, and as to employment, the requirement of vaccination or revaccination is already in operation as regards school teachers, and the military and naval services.

The regulation as to teachers is a favourite antivaccinationist grievance; but seeing that the Government and Parliament believe that vaccination and revaccination protect against small-pox, and that small-pox breaking out amongst unvaccinated school children, as at Gloucester, spreads with terrible rapidity and deadly effect, it is obviously right and necessary for the Education Department to insist that its employees shall be themselves protected against the disease. Indeed, as in the case of domestic servants, the requirement should include revaccination, for, though pupil teachers primarily vaccinated in infancy are in great measure protected from fatal small-pox, they are by no means secure against attack by the disease, and especially against mild attack, with its consequent danger of non-recognition, and of spread amongst children susceptible through non-vaccination. There is, however, one point which should be made a *sine quâ non* in any such Guild or Association—namely, the vaccination and revaccination of the members themselves. If this were properly attended to, they would not only be showing a good example to their servants, but would be taking the best means to secure themselves against risks due to inadvertence or concealment. Refusal to do business with antivaccinationists ought not, we think, to be included in any such scheme, as is suggested by the *Standard's* correspondents. It would be unnecessary and in some cases and places impracticable, and would savour of boycotting.

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THE NUMBER OF CONSCIENTIOUS OBJECTORS.

THE Local Government Board has, we understand, received returns from vaccination officers, showing the number of certificates of conscientious objections received, but the compilation of the statistics is not yet complete, and some little time must elapse before they are issued officially. The *Pall Mall Gazette*, however, has published in anticipation certain figures from which it would appear that the total number of certificates of conscientious objections to vaccination received up to the end of the year had reference to 275,000 children. It would appear that Oldham holds a bad pre-eminence in this respect, certificates having been granted in relation to over 27,000 children. Keighley is placed next with 15,696; Basford (near Nottingham), Norwich, and Northampton follow with over 11,000; Leicester has over 9,000, Burnley over 8,000, Luton, and Rochdale over 7,000, Ashton-under-Lyne nearly 6,000. In Liverpool, Manchester, and Birmingham the conscientious objector seems to be extremely rare, while in London, though the statistics are far from complete, it would appear that the number is not large. It is stated that in only twenty-one unions have no certificates been received. The fact, if it be a fact, that certificates of conscientious objection have been granted with regard to over a quarter of a million of children during the last four months is undoubtedly alarming; it must, however, be remembered, as some mitigation, that this number cannot be compared directly with the number of births. For the first four months after the passing of the Vaccination Act a certificate of conscientious objection could be made with regard to any child born before the passing of the Act, and some, possibly many, were obtained regarding late arrears of children who were by no means infants, and as to whom it may be assumed that there would have been in any case great difficulty in enforcing vaccination. The position is, however, extremely serious, and the figures are an evidence of the magnitude of the "tremendous experiment" which is being made.

POST-MORTEM EXAMINATIONS.

WE referred a fortnight ago to a charge of perjury brought by Mr. Braxton Hicks, Coroner for the South-Western District of Surrey, against a medical practitioner, and to the extraordinary manner in which Mr. Plowden, the stipendiary magistrate, thought fit to deal with the matter. The charge preferred against Mr. J. J. Mackay, a registered medical practitioner, was that he committed perjury before the coroner by stating on oath that he had made a *post-mortem* examination in accordance with the coroner's order, whereas he had not examined the organs. The charge rested upon the evidence given by Drs. Kempster and McManus, who, acting upon the coroner's instructions, had made a further examination of the body. Dr. Kempster deposed, according to a report in the *South-Western Star*, that there had been no examination of the organs at all, with the exception of a small portion of the brain and a slight view of a small portion of the liver. In reply to the coroner he added that that would not justify anyone in saying that he had made a *post-mortem* examination. Dr. Kempster's evidence was corroborated by Dr. McManus in every detail. The magistrate did not appear to take the trouble to understand the serious nature of the charge, which he treated with almost incredible levity. Apart altogether from the respect which it might have been supposed that the magistrate would have felt for the office of coroner, it is astounding that Mr. Plowden should have allowed himself to believe that medical men would lightly have undertaken the painful duty of showing by their evidence on oath that a member of their profession had conspicuously failed in his duty. The course of conduct which Mr. Plowden thought fit to follow has cast a slur upon the medical profession which cannot be allowed to remain. We understand that the matter has been brought to the notice of the Home Secretary, and we sincerely trust that Sir Matthew White Ridley will appreciate the importance of the reference. As we have already observed, the levity with which the magistrate treated a serious charge was very unbecoming his position, and his action really strikes at the root of the efficiency of coroners' inquiries. A coroner habitually depends with the utmost confidence—and his confidence is, we believe, almost invariably fully justified—upon the statements sworn by medical men directed by him to undertake *post-mortem* examinations. Such examinations are considered to be among the most solemn duties which the profession has to discharge to the public; and to find a charge such as that made by Mr. Braxton Hicks met as it was in this case must be most disquieting not only to the medical profession, but to the public at large.

THE OFFICE OF THE DIRECTOR-GENERAL A.M.S.

HITHERTO the officers of the Royal Army Medical Corps employed in the office of the Director-General of the Army Medical Service have not appeared in the *Army List* with any distinctive appellation indicating the nature of their office. In fact, only the senior officer is mentioned under the very undistinctive title of "Professional Assistant." On the other hand, under the other offices of the Military Department we find deputies, assistants, and deputy-assistants mentioned. In future a similar system will be put in force with regard to the officers employed in the office of the Director-General of the Army Medical Service. Surgeon-General W. Taylor, M.D., C.B., who holds the office of "Professional Assistant" to the Director-General, will be gazetted Deputy Director-General; Lieutenant-Colonel W. L. Gubbins, M.B., R.A.M.C., Assistant Director; and Majors W. G. A. Bedford, M.B., and W. G. Macpherson, M.B., R.A.M.C., Deputy Assistant Directors. Surgeon-

General Taylor sails for India on February 20th to take up the duties of Principal Medical Officer of the British forces in India, and Surgeon-General H. S. Muir is coming home to take up the duties of Deputy Director-General here. The number of surgeon-generals is at present one in excess, and on the retirement of Surgeon-General A. F. Churchill next June, Egypt will again become a colonel's charge. A new badge for the Army Medical Corps has been approved. In the new badge the serpent and rod, the immemorial emblem of the art and practice of medicine, are entwined enclosed in a laurel wreath, surmounted by the Imperial crown, with the motto "In arduis fidelis."

THE REV. MRS. EDDY'S *APOLOGIA*.

SINCE the death of Mr. Harold Frederic, Christian Science has been severely handled in the leading newspapers of the United States. The New York *Times*, of which Mr. Frederic was the London correspondent, has been the most outspoken in its denunciations. In a recent editorial article the following passage occurs:

> Why not enforce the law against these homicidal charlatans who practise their hocus-pocus on patients sick with typhoid fever, heart disease, and consumption? They kill, and, so far, kill unpunished. Not one of them could pass the Regents' examination. It would catch them all, and they would be delivered over to the law if they practised and took fees without a licence. The experience of Massachusetts shows that it may be difficult to draft a statute that will net these pests. Common sense shows that new legislation is not needed. Existing law will protect the ignorant from their deadly impostures if it be enforced.

With the legal aspect of the matter we are not at present concerned. We have referred to the article mainly because it has aroused Mrs. Eddy to reply. The high priestess of Christian Science, who surpasses Miss Marie Corelli in her gift of uttering ineptitudes with an air of inspiration, says loftily that "a person's ignorance of Christian Science is a sufficient reason for his silence on the subject." We cheerfully admit as a general principle that no one should speak of what he does not know, but we take leave to suggest to Mrs. Eddy that she would do well to bear this sound principle in mind when she feels a moving of the spirit to deliver her views on the treatment of disease. When she asks: "What can atone for the vulgar denunciation of what a man knows absolutely nothing about?" we venture to ask in turn, "What more are we expected to know about Christian Science than Mrs. Eddy has set forth in her book?" If the world does not now know all that there is to be known about Christian Science, the fault is Mrs. Eddy's own. She objects to her disciples being described as "pests," but comforts herself and them with the modest reflection that St. Paul and another greater than he were looked upon as pests by "Jewish pagans." She boasts that after her discovery of Christian Science she healed "consumption in its last stages that the M.D.'s by verdict of the stethoscope and the schools declared incurable, the lungs being mostly consumed;" that she has healed "malignant tubercular diphtheria and carious bones that could be dented by the finger, saving them when the surgeon's instruments were lying on the table ready for their amputation," and that she has healed "at one visit a cancer that had so eaten the flesh of the neck as to expose the jugular vein so that it stood out like a cord." We have no doubt that Mrs. Eddy believes herself to have done all these things, but we may be allowed to hint that the statements would be more convincing if she would procure us some better assurance than is here forthcoming. We are all liable to mistakes in diagnosis, and the recognition of such complicated conditions as "malignant tubercular diphtheria," for instance, seems likely to present special difficulties. But after all, the question of diagnosis is of no importance, for if disease be a delusion, it matters nothing what we call it. Mrs. Eddy argues that as homœopathy "is supposed to heal the most violent stages of organic inflammatory disease, to stop decomposition, to remove enteritis, gastritis, gastralgia, hyperæmia, pneumonia, diphtheria, and ossification—the effects of calcareous salts formed by carbonate and sulfate of lime," with highest attenuations which "have not an iota of the drug left in them," Christian Science can do the same things without any medicine at all. She says:

> The difference between metaphysics in homœopathy and metaphysics in Christian Science consists in this forcible fact: The former enlists faith in the pharmacy of the human mind, and the latter couples faith with understanding, and is based on the Divine Mind, knowing that this mind is omnipotent, is infinite, is all. Hence it is the sovereign appeal, and there is nothing therein to attenuate.

That there is nothing in the mind of the Christian Scientist to attenuate we have no difficulty in believing. When Artemus Ward was told that the Red Man was being driven towards the setting sun, he said it was rough on the setting sun. When we see the prophetess of Christian Science seeking a refuge in homœopathy, we cannot help feeling that it is hard on the homœopaths.

THE CENTENARY OF THE RUSSIAN MEDICAL MILITARY ACADEMY.

SUBSEQUENT to the grand ceremony in the Salle de Noblesse, to which we briefly referred last week, various other functions and festivities took place in St. Petersburg. Thus on Saturday, December 31st, 1898, a banquet was given in the Salle Koronof to the members of the Academy and the delegates. About 500 persons, mostly in uniform, sat down. The dinner was excellent in quality and was extremely well served. The Minister of War, General Kouropatkin, was present and made several speeches. On Sunday afternoon some of the delegates were shown round the hospital of the Academy, which seemed to be complete in every detail and far richer in cubic space than most British hospitals. On Tuesday, January 3rd, the delegates were taken round a vast series of buildings upon the Neva in which every kind of material needed by military hospitals in peace as well as in war is prepared. This interesting and instructive visit was followed by a luncheon, at which Dr. Remmert, the head of the establishment, presided. But perhaps the most interesting event of an extremely eventful week took place on Wednesday, January 4th, when the Czar met the delegates in the riding school of one of his palaces. The school is about 200 yards long by about 70 broad; the floor was covered with a firm layer of tan which had recently served in preparing Russian leather; it had, therefore, a delightful and characteristic odour. The ceremony commenced with an impressive and solemn service, at which some high ecclesiastical dignitaries, in the presence of the Czar, consecrated a banner. The musical part of the service was performed by the Imperial choir of men, who sang a considerable amount of concerted music without accompaniment. The singing was rich, pure, and beautiful. Before and after the ceremony a corps of about 500 young officers from the military school were put through evolutions by the Minister of War, whose magnificent voice filled the entire building. During this part of the ceremony the delegates were somewhat scattered amongst the many hundreds of Russian officers of high rank by whom the Czar was surrounded, but on its conclusion they were called to the front and arranged in line. Each delegate was then separately presented by name to the Czar, who shook hands with each in turn, and chatted with him in a friendly and informal way. After this ceremony a luncheon was given by the Minister of War to the delegates. This took place in the Restaurant Cubat. Many speeches were made during the meal. Throughout the entire centenary proceedings the British representatives occupied the third place, as it were. The French were obviously first though their allies made no particular demonstration about them. The French delegates were about five in number, and were headed by Dr. Dujardin-Beaumetz and two other military surgeons in profusely decorated uniforms. Then came a few Germans, with one of the chief of the army medical department at their head, and Professor Bergmann amongst them. After the Germans came the British, with Dr. Fergusson in the green and gold uniform of the old Royal Archers of Scotland, and Professor Ogston in the scarlet uniform of a Deputy-Lieutenant. Then came Mr. Owen and Mr. Cross, from the Royal College of Surgeons, Professor Shipley, from Cambridge, and the Rev. H. S. Cronin, the Dean of Trinity Hall. Further on were a delegate from Sweden and one from Switzerland. The British delegates express themselves as overwhelmed with the warmth and cordiality of the reception which they received from the moment of arriving in St. Petersburg until the time of leaving it. The Russians were evidently much gratified by their presence at the centenary celebration, and they showed their good feeling towards them in an extremely friendly and unmistakeable manner.

FRANCOIS QUESNAY.

M. QUESNAY DE BEAUREPAIRE, whose resignation of the post of President of the Civil Chamber of the Court of Cassation has brought his name so prominently before the world, numbers among his ancestors a member of the medical profession who helped to lay the foundations of economic science. The judge is the great grandson of François Quesnay, who was for thirty years the trusted medical adviser of Louis XV and his Queen. Quesnay was born at Mérey, not far from Paris, in 1694, the year that saw the birth of Voltaire. Though the son of a lawyer, he received no regular education. At 16 he was apprenticed to a surgeon at his native place, but soon left him to study in Paris. After five or six years of hard work he established himself as a surgeon at Mantes, where he soon had many distinguished persons among his patients. Madame de Noailles introduced him to the Queen, by whom he was consulted when she was in the country. He rose steadily in professional repute, and when the famous Académie de Chirurgie was founded in 1730 by La Peyronnie, Quesnay was chosen to be its perpetual secretary. Soon afterwards Quesnay removed to Paris, where by La Peyronnie's influence he was appointed Surgeon to the King. After a time, being disabled by gout for the practice of surgery, he got the degree of M.D. from the University of Pont-à-Mousson, one of the numerous small universities of old France of which the name has almost perished from the memory of man. On the strength of his degree Quesnay bought the reversion of the post of Physician-in-Ordinary to the King, and in due course he became his first Consulting Physician. In this capacity he occupied apartments in the palace of Versailles. Louis XV had a particular regard for Quesnay, whom he called his thinker. Among the marks of royal gratitude which the physician received was a title of nobility with arms designed by the King himself; these were three flowers of pansy ("that's for *thoughts*") with the motto, *Propter excogitationem mentis.* Quesnay made some useful contributions to medical literature. He wrote on bleeding, on gangrene, on suppuration, on continued fevers, on the preservation of life; and he is the author of a valuable review of the progress of surgery in France. But his reputation as a thinker rests on his work in economic science. He was the founder of the school of so-called *Physiocrates,* which included the elder Mirabeau (*l'ami des hommes,* whom readers of Carlyle will remember), Morellet, and others interested in political economy. In Quesnay's room in the palace Diderot, d'Alembert, Helvetius, Buffon, Turgot, and Marmontel used to meet and discuss the financial and political condition of the French nation with a freedom which might not have been altogether pleasing to the royal ear. Madame de Pompadour, whose apartments were near to those of Quesnay, was sometimes present at the debates of the philosophers. Quesnay took no part in court intrigues. He was an upright, straightforward man, possessed with an unselfish zeal for the public good. His chief works in the domain of political economy are the *Tableau Economique,* which Laharpe called the "Koran of the Economists," and at the printing of which Louis XV is said to have worked with his own hands; *Maximes Générales du Gouvernement Economique d'un Royaume Agricole,* a treatise on Natural Right, and several contributions to the *Encyclopédie.* Adam Smith, who made his acquaintance during a visit to France, thought so highly of him that he would have dedicated *The Wealth of Nations* to him had he been alive at the time of its publication. Quesnay died in 1774, one of his last intellectual exercises being an attempt to square the circle. In the memoirs of Madame de Hausset, lady's maid to Madame de Pompadour, an English translation of which was published not long ago, there is a good deal about Quesnay. The following passage shows the esteem in which he was held, besides giving a picture of the man: "I was afterwards told that M. Quesnay was very learned in certain matters relating to finance, and that he was a great *économiste.* But I do not very well know what that means. What I do know for certain is that he was very clever, very gay and witty, and a very able physician." A statue of Quesnay was erected a year or two ago in his native place, and it would be difficult to name any Frenchman in the eighteenth century who better deserved such an honour.

A NURSING STAFF FOR WEST AFRICA.

MR. ELLIS EDWARDS, an old resident on the West Coast of Africa, has, in a letter to the *Manchester Guardian,* drawn attention to the scarcity of nurses in the West Coast colonies. Mr. Edwards suggests the formation of a trained staff of nurses for service in these unhealthy regions. He thinks that, in addition to Europeans, African women might be trained in Britain, and sent out to work under a European sister or matron. Mr. Edwards suggests that a proper home be formed for the nurses; that they should be well paid, and that the Europeans at the end of each year of service should be granted six months' leave on full pay, with free passages provided to and from the colonies. The increasing trade with the West Coast is beginning to interest Liverpool and Manchester merchants seriously in the question, and it is being realised that the great difficulty in connection with the trade is the maintenance of the health of agents and traders. So keenly has this come home to merchants, that they are ready and willing to subscribe liberally towards the maintenance of a trained nursing staff on the Coast, and the formation of an active Committee is alone required to see the scheme set on foot with every guarantee of success. We hope to see this much-needed organisation speedily at work, and we believe that a great part of the money expended would be returned even directly in fees paid by patients.

THE ISLE OF WIGHT DIAMOND JUBILEE MEMORIAL.

HER MAJESTY has graciously consented to open, on February 8th, the Children's Ward, to contain which the new detached wing of the Isle of Wight Infirmary and County Hospital has been erected by the Isle of Wight people to commemorate the Queen's long reign. This event is anticipated with particular interest, as it is said Her Majesty has not performed a ceremony of the kind since the Prince Consort's death. The ward, which is intended to accommodate ten beds, is 45 feet long, 24 feet wide, and 12 feet high, running east and west. On the south side is a verandah extending the whole length of the ward; and at the east end, opening into the ward by glass doors, is a semicircular day or "sun" room, glazed with plate glass; and communicating with the ward, at its north-east corner, is a sanitary tower with the usual offices. Both the ward and day room have teak flooring, and the ward will be heated by a double grated Teale stove placed in its centre. At the west end the ward opens by glass doors into a corridor on the north side of which is the children's bathroom and the ward scullery, and on the south side the ward attendant's room. This corridor joins, at right angles, the entrance corridor, in which are cupboards and lockers, and this leads, by a covered way, to the infirmary building. Over the corridors and the three rooms mentioned is a second floor, containing three nurse's bedrooms, 14 feet by 12 feet by 9 feet 6 inches, bath-room, and offices. The wing is built of Bembridge limestone, an exceedingly durable local stone, with facings of Bath stone. In a recess of the south wall, above a commemorative tablet, is to be placed a bronze bust of the Queen by Mr. Onslow Ford, which will be unveiled before the opening ceremony by H.R.H. Princess Henry of Battenberg, Governor of the Isle of Wight, and President of the Isle of Wight Infirmary and County Hospital. The contract for building the wing was let at £3,300, but it will cost more. Six of the ten cots have been already endowed. The endowment for each cot is £1,000; and it is hoped that donors of the other four cots will come forward in order that the already insufficient income of an important institution may not be embarrassed by the maintenance of any portion of this very valuable addition to its means of usefulness.

SUGAR AS A RATION.

SOME trials were made during last year's German autumn manœuvres regarding the value of sugar as nourishment for troops. In each of the companies directed to carry out the experiments ten men, chosen from amongst the least vigorous, were told off as the subjects for experiment, another ten being also selected who were strictly confined to the service rations. The amount of sugar supplied daily to the men was gradually increased, and their weight increased proportionately more than that of those who were without it, while the men themselves were in better health and more vigorous than they had been before. When on the march a piece of sugar relieved hunger and appeased thirst, while, thanks to it, it was found easier to fight the exhaustion produced by the heat. No objection was made by the men to taking the sugar. The results of the experiments were considered successful, and Dr. Leitenstörfer, under whose superintendence they were carried out, has suggested that sugar should be added to the rations in one of the three following ways: (*a*) As a supplementary allowance, with the view of improving the men's daily ration; (*b*) as an integral part of the men's reserve store of provisions, and of the supplies for fortresses, hospitals, and ships; and (*c*) as a temporary allowance for strengthening the men and renewing their vigour on the march.

DISINFECTION WITH FORMALDEHYDE.

THE growing popularity of formaldehyde as a disinfectant, and the somewhat extravagant claims which have been made for it in certain quarters lends special importance to some investigations made by Schumburg, and reported by him in the *Deutsche medizinische Wochenschrift* (No. 52, 1898). He points out that in an examination of the germicidal properties of a disinfectant it is of paramount importance that the test objects should be freed completely from the disinfectant to which they have been exposed before they are placed in the culture medium. Otherwise, obviously, even a trace of the disinfectant may inhibit the growth of the culture and lead to the erroneous impression that the micro-organisms in question have been killed. In the case of formaldehyde, the common practice is to expose the test object for a short time to the fumes of ammonia, or to place it in a strong solution, in order to convert the formalin into hexa-methylen-tetramin, which is inert. Schumburg's point is that as usually employed this method is useless. Even an exposure of twenty-four hours to the action of ammonia is insufficient to neutralise the formalin which will adhere to a silk thread. The safest plan is to use (as Koch recommended long ago) a fluid nutrient medium in considerable quantity, so as to dilute any adherent formalin to the necessary degree. A thread (covered with staphylococci) to which some formalin still adhered was pressed on the surface of an agar plate. No growth took place. Placed in bouillon a luxuriant crop of staphylococci was obtained.

MUNICIPAL BACTERIOLOGY.

RECENTLY the London County Council circularised the various vestries to ascertain their views upon the foundation of a central bacteriological laboratory for the examination of material from infectious cases occurring in the county of London. This question, however, certain of the vestries appear to be settling offhand for themselves by appointing bacteriologists to fulfil the same function for the area under their jurisdiction. Unless and until a central laboratory such as has been proposed is started, the vestries in so doing are certainly acting for the best both in the interests of the public health and for the ratepayers in their district. According to a statement in the *Daily Telegraph*, 1,200 notifications of diphtheria were received in Camberwell alone in the course of last year; of these, 60 were submitted to bacteriological investigation and 24 proved not to be due to the Klebs-Loeffler bacillus. Arguing from this small number of examinations, 37 per cent. of the cases were not diphtherial. The Camberwell Vestry were, therefore, fully justified in securing the services of Dr. E. C. Bousfield as their bacteriologist. This gentleman, taking a broad view of his appointment, has been imparting instruction to the ratepayers in the district in the form of an illustrated lecture. A large audience assembled in the Camberwell Art Gallery on Tuesday, January 3rd, when an interesting programme was provided by the Public Health Committee of the vestry, which included music, microscopes, Roentgen rays, the electrophone, and Dr. Bousfield's lecture. Dealing generally with the bacteriology of infectious diseases, he made special reference to diphtheria, and the lecture was illustrated by a series of microphotographs of various pathogenic organisms displayed on the screen by limelight. The lecture was closely followed by the audience, who warmly applauded Dr. Bousfield at its close.

DIPHTHERIA AND CHILDBED.

DR. WHITRIDGE WILLIAMS of Baltimore has reported to the *American Journal of Obstetrics* a very grave case in which a physician infected with diphtheria a woman whom he delivered of a healthy child. The result was that the mother suffered from characteristic diphtheria of the vulva followed by diphtherial paralysis of the legs, whilst the child and another, making up the mother's whole family, succumbed to the disease. The doctor admitted that he had several cases of malignant diphtheria under his care at the time when the patient was confined, but as he had disinfected his hands most carefully with bichloride before examining her, he could hardly believe that he had carried infection to his patient. Labour was spontaneous, and all went well till the twelfth day, when the patient began to complain of pain and swelling about the vulva, which gradually increased in severity. The newly-born child a few days later developed all the signs of pharyngeal diphtheria, and died from laryngeal stenosis notwithstanding the use of antitoxin. When it was sinking, the elder child, 18 months old, was taken ill with diphtheria, which proved fatal. The rubber nipple of the bottle used by the elder child was frequently given to the baby to "pacify it." On the fifteenth day after delivery the mother was unable to urinate, and on passing the catheter the physician noticed that the vulva was much swollen and its inner surface covered with a greyish-white exudate. No alarming symptoms were noticed afterwards, though fever and rapid pulse prevailed during the third week. Dr. Whitridge Williams examined the patient on the twenty-third day. She was a poor German, aged 20, of slatternly habits, and lived over a stable. Her only complaint was of burning during micturition and soreness about the genitals when she sat up in bed. The inguinal glands on both sides were enlarged and sensitive. The diphtherial membrane on the inner side of the vulva was very characteristic; it hardly extended up the vagina; the uterus had undergone involution, and the appendages appeared to be normal. The presence of the Klebs-Loeffler bacillus was demonstrated. Dr. Williams prescribed antitoxin, and the genitals were kept clean with a boracic acid solution. This was followed by the rapid disappearance of the membrane, and ten days later all trace of the disease had vanished. At the end of a few weeks paraplegic symptoms made their appearance, but gradually improved under appropriate treatment. Dr. Whitridge Williams observes that this case illustrates very forcibly the dangers to which a practitioner exposes his patients when he is so injudicious as to attend obstetrical and diphtherial cases at the same time, no matter how carefully he may attempt to disinfect his hands.

LEPROSY IN NEW SOUTH WALES.

THE report of Dr. J. Ashburton Thompson, President of the Board of Health, on leprosy in New South Wales during the year 1896, printed and issued in 1898, shows that on January 1st, 1896, 37 patients remained under detention at the Little Bay Lazaret. During the year 9 persons were reported under the Leprosy Act, 1890, as suspected lepers, but after a careful investigation it was found that 3 only were suffering from the disease; all 3 were Chinese males. Five patients died during the year; and 19 Chinese patients were shipped back to China, at a total expense of £1,946. Not only were their passage paid, but they were accompanied by a male attendant, provided with dressings and comforts, including opium, and at the end of the voyage they were supplied with money to the amount of £5 in some cases and £8 in others, to enable them to purchase Chinese clothes, and pay their way to their homes. At Hong Kong they were transferred to a tug, and dismissed at Canton, under the supervision of the Consul there. This treatment reflects the greatest credit on the New South Wales Government. The number of patients remaining in the lazaret on December 31st, 1896, was 16. The total number of lepers admitted since 1883 is 61. Notification of leprosy was first made compulsory, and the detention of lepers provided for by law towards the end of 1890. Two additional cases were reported to the Board in 1887 and 1889 respectively. Of the 5 Europeans 4 were from the British Isles, and 1 was a German. The total number of Chinese is 32, as against 15 natives of New South Wales of European descent. The first lepers admitted were Chinese—namely, five in 1883; it was not till 1888 that a New South Wales native became an inmate. One Chinese patient became insane, and died in an asylum (1886). Appendix C, published separately, contains the notes of the three cases admitted in 1896. Case LIV (Hing Yung) is interesting. He was first admitted to the Sydney Hospital, where the case was diagnosed as beri-beri. Later he came under observation at the coast hospital, but, as the bacillus lepræ could not be found, he was discharged. On readmission soon after, the search was successful, and the case was reported under the Leprosy Act. The radiographs show the changes in the bones of the hands of two other patients, a Fijian of European descent (Case XIII, 58), and a Javanese (Case XVII, 31). The Roman and Arabic numerals correspond to the cases in former reports and in Dr. Ashburton Thompson's *History of Leprosy in Australia* respectively. In conclusion, the report for 1896 is satisfactory, but it is possible that the three cases admitted did not represent all the lepers outside the lazaret at the time.

LEBANON HOSPITAL FOR THE INSANE.

THE first annual report of this hospital, founded by Theophilus Waldmeier, of which Sir R. Tangye is Treasurer, Dr. R. Percy Smith, Chairman of the Committee, and Mr. Francis C. Brading, 35, Queen Victoria Street, E.C., Secretary, has been issued. The asylum is now being built on the cottage system at Asfuriyeh, near Beyrout; and is the first asylum for the insane in Bible lands. It has the warm approval of many eminent physicians in this country, and £3,000 have been subscribed in the British Isles towards the object. In the United States £800, and on the Continent £700, have also been given. The site is healthy and beautiful, six kilometres from Beyrout on the Damascus road, 400 feet above the sea, on a lower slope of the Lebanon range. It comprises about 30 acres, and contains a big building suitable after slight alteration for the central administration, and two farmhouses, orchards of olive, mulberry, and fig trees, and vineyards, from which there will be a regular annual income. The water supply is ample. The cost of the property has been £1,828, and is regarded as economical. Two cottages, one for 20 male and the other for 20 female patients, are to be erected at once, at a cost of about £1,000 each; and a physician and trained European nurses and attendants are beginning to study the Arabic language in Syria, and preparing in other ways for their work in the country. Dr. Maag, a graduate in medicine of the University of Zurich, who has much experience in mental diseases, has offered his services gratuitously to the institution. Further funds are urgently needed, and local committees have been formed in many places in Britain with the object of assisting this beneficent work.

KISSING FROM AN ANTHROPOLOGICAL POINT OF VIEW.

JOHANNES SECUNDUS, in his *Basia*, dealt in a fairly exhaustive manner with kissing from what may be called the physiological point of view; the bacteriologists have had something to say on this form of exercise, or "gesture," as it appears to be called by the learned, in its pathological aspects; now we have M. Paul d'Enjoy (in the *Revue Scientifique*) dealing with the subject from the anthropological standpoint. The yellow races, he tells us, know nothing of the friendly embrace which the Romans called *osculum*, nor of the polite salute termed *basium*. With them the kiss retains its primitive character of an act which is largely an expression of the generative instinct. Hence only married people and lovers kiss. According to M. d'Enjoy, the Mongol kiss is essentially a "gesture of olfaction." An analysis of the "gesture" shows that it is composed of three successive determinate movements, to wit, (1) the application of the nose to the cheek of the beloved one; (2) a prolonged nasal aspiration accompanied by lowering of the eyelids; and (3) a slight smacking of the lips, without application of the mouth to the cheek of the person kissed. M. d'Enjoy sees in these movements the expression of a sexual impulse mingled with the desire for food. The touching of the face is, as it were, the act of seizing the prey; the closing of the eyes denotes the pleasure of possession; the prolonged smelling is at once a sexual stimulant and an instinct inherited from primitive times when man was dependent on his sense of smell in hunting and in selecting his food. As to the smack of the lips which brings the osculatory performance of the yellow peoples to a close, M. d'Enjoy is doubtful whether it is to be interpreted as representing the first movement of mastication or as "the final gesture of sensuality executed at the end of an agreeable repast." To the Chinese and other yellow races the mode of kissing practised by white people appears indecent and disgusting. They seem to have analysed the act for themselves, and have satisfied themselves that it consists in actual suction—not merely "dry cupping"—with the lips arranged *secundum artem* for the purpose. The jealous Annamites, it appears, tried to frighten their womankind from going too near their French conquerors by telling them that "Europeans bleed women when they kiss them." We gather that the women, following in the footsteps of their mother Eve, have made experiments which have satisfied them that the statements made to them on the subject are incorrect, and the supposed depleting effects of the European kiss are now used only to terrify children. M. d'Enjoy admits that in the white man's kiss the nutritional character is very pronounced, consisting as it does, according to his analysis, of biting followed by suction. But he thinks the Chinese philosophers go too far in regarding it as a form of cannibalism, though if they read Swinburne and Rossetti they might find some warrant for their belief. M. d'Enjoy gravely explains the kiss to mean an attempt to express to the subject of the operation that his or her "presence near us makes us feel a pleasure as violent as the immediate possession of a prey eagerly desired." We think that by this interpretation of the mystery of the kiss M. d'Enjoy rather gives away his case; the idea of "prey" implies the devouring of it, and this comes very near the Chinese notion. Altogether we are in some doubt whether there is much to choose—from the anthropological point of view—between a form of kissing which is the expression of an anthropophagous impulse, however etherealised into symbolism, and a "gesture of olfaction" which is held by those who use it to be "an act of perfect adoration," refined and delicate in itself and of imagination all compact.

MEDICAL HISTORY.

PROFESSOR FOSSEL lately delivered an address in the Graz University on the teaching of medical history. The university has instituted a course of lectures on this subject which has received but little attention even in Germany, where most things are treated "mit Gründlithkeit." Göthe's dictum that "the history of a science is the science itself" applies equally well in the case of medicine. The history of medicine cannot be studied apart from the life-history of the people. Isolated facts have no reality to the mind of the student when separated from the thought and feeling of the time. The study of history would tend towards a feeling of tolerance between the individual members of the profession, especially in international relations. Our views of progress, especially with regard to treatment, are often exaggerated owing to our ignorance of the past. A method of treatment in vogue at the present time can often be shown to be merely a repetition of one used formerly. The study of history might aid in counteracting the purely realistic training which the student receives and which at times threatens to destroy his humanity. Above all, it would be making him a man of culture.

THE KING AND THE AIGUILLETTE.

IT will be remembered that some time ago there was a great commotion about an order issued in India forbidding the Viceroy's surgeon to wear the aiguillette, which all the other officers of the Governor-General's staff wore. Had the following anecdote, dating back to the time of George IV, anything to do with it? The anecdote is to be found in a most interesting work, *Collections and Recollections*, by One Who Has Kept a Diary. "The late Lord Charles Russell (1807-1894) when a youth of 18, had just received a commission in the Blues, and was commanded with the rest of his regiment to a full-dress ball at Carlton House, where the King (George IV) then held his court. Unluckily for his peace of mind, the young subaltern dressed at his father's house, and, not being used to the splendid paraphernalia of the Blues' uniform, he omitted to put on his aiguillette. Arrived at Carlton House, the company, before they could enter the ballroom, had to advance in single file along a corridor in which the old King, bewigged and bestarred, was seated on a sofa. When the hapless youth who lacked the aiguillette approached the presence, he heard a very high voice exclaim, 'Who is this d—d fellow?' Retreat was impossible, and there was nothing for it but to shuffle on and try to pass the King without further rebuke. Not a bit of it. As he neared the sofa the King exclaimed, 'Good evening, Sir; I suppose you are the regimental doctor?' And the imperfectly-accoutred youth, covered with confusion as with a cloak, fled blushing into the ballroom and hid himself from further observation." The writer of the book alluded to appropriately adds: "And yet the narrator of this painful story always declared that George IV could be very gracious when the fancy took him; that he was unformly kind to children; and that on public occasions his manner was the perfection of kingly courtesy."

CÆSAREAN SECTION IN THE PHILIPPINES.

DR. LOBTI, of Biarritz, furnishes us with information about obstetrics in the Philippines, even more remarkable than the recent reports as to the strange social and political relations of the inhabitants of those islands. Owing to well-known religious prejudices, craniotomy is doubtless rarely, if ever, practised, but Cæsarean section after the death of the mother is not rarely performed as a religious duty. In 1821, the year when a deadly epidemic of cholera ravaged the Philippines, six *post-mortem* Cæsarean sections were undertaken in Bohol alone. The parish register contains a notification of the baptism of the children, two being reported as strong, and the remaining four likely to live. No serious comment need be made on this alleged saving of all the six infants who survived the algid stage of cholera and the death of the parent. In another village the same operation was undertaken in one case, and the child lived, it is said, seven hours. Even more incredible is the case of a woman in Cabancalan, Isle of Negros, who died pregnant; her abdomen was opened twenty-four hours after death. The child, it is related, showed every sign of life. Six years later, at Mandana, a child is said to have been extracted seven hours after the death of its mother. Not only was it reported as living, but it is said to be yet alive to witness the truth of the report. In the Isle of Negros a living female fœtus was removed from the body of a woman who had been murdered two hours previously. Lastly comes an announcement—as long ago, we must observe, as December 12th, 1854—in the *Official Bulletin* of Manila. Cæsarean section was performed on the body of a woman five months pregnant five hours after her death. The fœtus lived for half an hour. Of the above statements, reproduced in the *Journal d'Hygiène*, it may be confidently asserted that they include two facts mixed up with a mass of what we may gently term inaccuracies: first, that *post-mortem* Cæsarean section is often undertaken in the Philippines, no doubt more frequently than above reported; and secondly, that there is an extreme prejudice in its favour which makes the natives eager and ready to believe that the aim of the proceeding is not missed.

MR. WILLIAM CADGE, F.R.C.S., Consulting Surgeon to the Norfolk and Norwich Hospital, has given £10,000 to the endowment fund of the hospital. Mr. Cadge made a similar donation to the same fund a few years ago.

DR. C. R. MARSHALL has been appointed Professor of Materia Medica at University College, Dundee. Dr. Marshall has for some years held the post of Assistant Downing Professor of Medicine in the University of Cambridge, and is well known for his pharmacological researches.

SANITARY AUTHORITIES AND TUBERCULOSIS.

THE public attention drawn to the prevention of tuberculosis by the action of the National Association, and especially by the recent meeting at Marlborough House, is a sufficient excuse—if excuse, indeed, were needed—for returning again to the subject, and especially for examining into the existing powers of sanitary authorities for preventing the spread of this disease, either by disinfecting premises where a death has occurred, or by providing, or assisting in the provision of, hospitals for the open-air treatment of the sufferers.

DISINFECTION.

Powers under 1875 Act Cover any Infectious Disease.

The Public Health Act, 1875, gives sanitary authorities, outside the metropolis, certain powers in regard to "infectious disease." Section CXX of that Act enables an authority, on the certificate of any registered practitioner "that the cleansing and disinfecting of any house, or part thereof, and of any articles therein likely to retain infection, would tend to prevent or check infectious disease," to give the owner or occupier notice to carry out such cleansing or disinfecting within a specified time. If he fail he may be fined, and the local authority may do the work, charging him with the cost. By another part of the same section, if the owner or occupier is unable, from poverty or otherwise, "effectually to carry out the requirements of this section," the authority may, with his consent, do the work for him free of expense.

Limitation by the Prevention Act to Certain Diseases.

It will be noted that under this section there is no limitation to the ordering of the cleansing and disinfecting of a house or room, or articles in it, even to "dangerous" infectious diseases, a term used in other sections of the Act. The section clearly might be applied to diseases like chicken-pox or scabies, which could only in extreme cases perhaps be regarded as "dangerous." The section, again without any limitation of the wide term "infectious disease," is made to apply by the Act of 1885 to ships. The adoption, however, by a sanitary authority of Section V of the Infectious Disease (Prevention) Act, 1890, repeals Section CXX of the Public Health Act, 1875, for that district, and substitutes other powers. It will be remembered that the several sections of this Prevention Act are severally and separately adoptable by an authority outside the metropolis. By the definition clause (3) of this Act of 1890, however, the term "infectious disease" has a limited meaning given to it, and the provisions of the adoptable sections, therefore, only apply to those infectious diseases named in the Notification Act of 1889, or to other infectious diseases added to the list in the manner prescribed in the last-named Act. The approval of the Local Government Board is necessary to any such extension of the list of infectious diseases.

Purifying Houses under Section 46.

It follows, therefore, failing any such extension to tuberculous disease, that an authority, which by adopting the, in some respects, stronger section of the Prevention Act of 1890, had *ipso facto* repealed its own powers under Section CXX of the Public Health Act, 1875, would have so far sacrificed its right of dealing not only with chicken-pox and scabies by ordering disinfection, but even with phthisis. We say advisedly "so far" for, by what looks at first sight like a redundancy in the 1875 Act, there is in that Act another section—Section XLVI—which enables an authority, on the certificate to a certain effect of the medical officer of health, or two medical practitioners, to order the "whitewashing, cleansing, or purifying" of any house or part of a house. The required medical certificate is to the effect that such house, or part of a house, is "in such a filthy or unwholesome condition that the health of any person is affected or endangered thereby, or that the whitewashing, cleansing, or purifying......would tend to prevent or check infectious disease." Again "infectious disease" is unrestricted, and must be held to include phthisis, even if the "unwholesome condition" of the earlier part of the sentence did not enable cleansing after that disease to be effected. Unfortunately this clause does not give power to remove "articles." The apparent redundancy of the section is due to the circumstance that Section XLVI (the whitewashing and purifying clause) is a survival of Section LX of the Public Health Act of 1848, while Section CXX (the disinfecting clause, applying also to "articles") was Section XXII of the Sanitary Act of 1866. The draughtsmen of the 1875 Act, perhaps wisely, left these two sections practically as they were originally enacted. Owing to their having done so, it seems that an authority desiring it could, by means of Section XLVI, insist upon the purifying of a house in which a phthisical case had occurred, even although they had, by adopting Section V of the Prevention Act, lost the power of disinfecting the house and all articles infected by any infectious disease conferred by Section CXX of the 1875 Act.

Limitation of the Term "Infectious Disease" in London.

London is practically in the position of those provincial districts which have adopted the Prevention Act. "Infectious disease" in the 1891 (London) Act is a term limited to certain specified disorders. In provincial districts which have adopted Section V of the Prevention Act, the term "infectious disease" applies only to diseases named in the Notification Act, and such other diseases as the authority may have been allowed to add to their list for the purposes of the former Act, presumably for use as to all the clauses adopted from that Act. In London, while the initial restriction on the meaning of the term is the same, the extension of the term to other infectious diseases may be for the purpose apparently of the disinfection clause, or other single provision of Sections LIX to LXXIV only, if such be deemed advisable. The sanction of the Local Government Board is necessary to such extension of the definition whether determined on by a vestry for its own district, or by the London County Council for the whole metropolis.

Power to Order Articles to be Destroyed.

But the powers conferred by Sections CXX and XLVI are not the only ones by which an authority outside London can deal with articles infected by tubercle bacilli. Section CXXI of the Public Health Act, 1875, allows an authority to "direct the destruction of any bedding, clothing, or other articles which have been exposed to infection from any dangerous infectious disorder," and allows them to grant compensation. The next section, which allows them to provide a disinfecting station and to disinfect any articles brought to them free of charge, could be made to cover the voluntary disinfection of articles from a tuberculous patient. The authority which had repealed Section CXX and not added phthisis to its infectious list could, perhaps, not legally fetch infected articles to its stations, but would probably be willing to do so and risk the criticism of the auditors rather than destroy useful property.

COMPULSORY ISOLATION.

Section CXXIV, which provides for the compulsory removal to hospital of a patient suffering from a "dangerous infectious disorder," need not be very lengthily considered. The conditions of such enforced removal are that (1) the patient is without proper lodging or accommodation, or (2) is lodged in a room occupied by more than one family, or (3) is on board ship, and (4) that there is a conveniently-situated hospital, (5) whose managers are willing to receive such patient. When the patient is in a common lodging-house and the hospital authorities are willing, the process is even more summary. This introduces the question of the provision of hospitals.

OTHER SANITARY POWERS AGAINST INFECTION.

It may be mentioned, however, in passing, that Section CXXVI of the Act of 1875, applicable to the English provinces, makes it penal to give, lend, sell, transmit, or expose—without previous disinfection—any article exposed to infection from "any dangerous infectious disorder." In the corresponding section applying to London the term "infectious disorder" is limited in the manner already indicated.

The penalty under Section CXXVIII for letting, without disinfection, a house or room occupied by a patient, would apparently, under the 1875 Public Health Act, in the same way apply to any "dangerous infectious disorder," including phthisis, but the usual limitation applies in London.

Provision of Hospitals.

The provision of hospitals by sanitary authorities is apparently a less difficult question. The compulsory removal section (Section cxxiv of the Public Health Act, 1875), already referred to, merely stipulates that the hospital must be one "for the reception of the sick," and it is left to the managers to say whether they will receive the particular case. It is common enough, as everyone knows, to send cases of enteric fever to general hospitals. The hospital need not belong to the local authority, or to any sanitary authority, and need not be within the district of the authority sending in the patient.

Correspondingly broad is the power given to sanitary authorities themselves to provide hospitals. Such hospitals, as they "may provide for the use of the inhabitants of their district," are to be "for the reception of the sick." There is no qualification of the word "sick." Nothing is said in Section cxxxi (Public Health Act, 1875) about infectious disorders, dangerous or otherwise. Clearly, therefore, any sanitary authority may either themselves erect, contract for the use of, or combine with other authorities in providing "hospitals, or temporary places, for the reception of the sick." There is nothing to prevent any sanitary authority from building or contracting with anyone for the use of wards for tuberculous patients. The cost of maintenance of any such patient, not being a pauper, would by Section cxxxii, "be deemed to be a debt due from such patient to the local authority," recoverable if applied for within six months of his discharge.

It is true that in regard to most acute infectious disorders it has been the habit of many authorities to ignore the existence of such debt on the principle that the protection to the public obtained by treating infectious cases within the walls of the isolation hospital is worth the expenditure. This practice avoids the irritation resulting from the action on the part of an authority in first carrying off an infected member of a family and then charging for his maintenance.

Acute v. Chronic Infectious Disease.

The increasing demand made upon the space at the disposal of an authority for the isolation of ordinary infectious cases, and the corresponding increase in outlay, make it not improbable that there would be considerable hesitation about extending the benefits of hospital treatment to all cases of tuberculosis entirely free of charge. There is, of course, an obvious distinction between treating a case of scarlet fever for six weeks, and thus saving the young members of a family not only from risk of the infection, but also from the necessity during the whole of that period of absenting themselves from school—there is an obvious distinction between this and the treatment, perhaps for several years, of a phthisical patient whose disease is less patently infective. The element of the pecuniary saving to the public by checking the disease early, instead of allowing such person to become a hopeless invalid, and eventually chargeable to the rates, is one in which the guardians of the poor are morally, if not legally, as much concerned as the sanitary authority. So far, in fact, as the patient is not immediately dangerous to any large number of the inhabitants, the sanitary authority might hesitate to interfere.

It would seem that, in the first instance, a combination between the sanitary and Poor-law authorities and those voluntary helpers, who in this country are never far to seek, might best meet the immediate requirements for the isolation and treatment of tuberculous patients. A voluntary sanatorium or hospital, subsidised from the rates, seems the likeliest direction in which to look. A small charge for every case, paid by the individual when able, by the guardians or sanitary authority where such was not the case, should cover to a large extent the cost; and the Wernhers and Beits are not the only wealthy persons who would desire to assist—perhaps even to start—institutions for the open-air treatment of consumption.

Charitable Midwifery in Paris.—It is stated that of the fifty to fifty-five thousand women confined every year in Paris more than 30 per cent. are attended at the expense of the Assistance Publique. Of these women, 14,066 are delivered in the maternity hospitals, 5,876 by midwives attached to the hospitals, and 12,015 by the midwives of the Bureaux de Bienfaisance.

REPORT OF THE MEDICAL OFFICER OF THE LOCAL GOVERNMENT BOARD (ENGLAND) FOR 1897-98.

I.

We have already, in the British Medical Journal of December 17th, 1898, commented on some of the matters of which Sir Richard Thorne treats in his annual report, namely, the Bacteriology of Infantile Diarrhœa and Cholera Nostras, and Unvaccinated Children. The words of Sir Richard Thorne concerning the latter subject have been quoted again and again in the short period that has elapsed since the report was issued, and are pregnant with dark forebodings of what may happen if the new legislation as to vaccination continue to be so administered that a large part of the population escapes from acquiring the protection which vaccination and revaccination alone can afford.

Administrative Business.

Sir Richard Thorne, by the aid of a few graphic paragraphs, lifts the curtain that usually veils the internal doings of a Government department, and shows how much goes on of a quiet and informal character that tends to smooth the working of officialdom in the matter of local applications of health bodies which have to do with such subjects as hospital provision for the isolation of infectious diseases, local by-laws, the raising of loans, and the carrying out of the duties of medical officers of health. We cannot wonder that local authorities have availed themselves of these means of discussing important points, nor that results have been thus obtained that could hardly have been achieved by formal correspondence. The same seems to have been true of the visits of the medical inspectors to localities where health matters needed attending to; and Appendix A, No. 5, gives a useful abstract of the more important reports made by the staff relative to the incidence of disease in particular places, and to questions concerning local sanitary administration. The proposals of one kind and another touching on public health that have been investigated were numerous and diversified.

Enteric Fever at Maidstone.

It is clear from the report that Dr. Theodore Thomson had made much progress in an independent investigation of the Maidstone epidemic of enteric fever of 1897 before he became associated in the "public" inquiry which was locally requested, and which resulted in the issue of a joint report by himself and other two inspectors of the Local Government Board, which report, we are told, "did not form part of the proceedings of the Medical Department."

Cholera and Plague.

A few words by Sir Richard Thorne on the action of the Medical Department in regard to the arrival of two vessels at Plymouth and Southampton respectively, the one infected by cholera and the other by plague, incidentally afford evidence of the efficiency of our port administration in respect of the local action needed when these exotic diseases are in question and to the tact displayed by the Central Department in dealing with local and other interests in these matters. As regards cholera prevalences in and out of Europe, Dr. Bruce Low gives a detailed statistical report, which proceeds much on the lines of those which came from the pen of the late Dr. Barry, as to the appearances of the disease both in 1894 and 1895. Dr. Low seems to have a distinct facility for correlating data of the sort, and his report is well deserving of preservation.

Oysters and Enteric Fever.

The very valuable contribution to the literature directly connecting the ingestion of oysters with diseases in the human subject, made by Dr. Buchanan, is reproduced in an appendix, and fully commented upon by Sir Richard Thorne, whose analyses of this and of the other reports in the volumes are masterly summaries of the facts detailed. As a result of complete and exhaustive inquiry into 26 cases of enteric fever in several sanitary districts, it would seem impossible to avoid the conclusion that certain oysters did, as a matter of fact, convey the disease to consumers; and with great exactness Dr. Buchanan indicates whence these oysters came and the means whereby he believes they derived their infective quality.

ENTERIC FEVER AT KING'S LYNN.

The lesson to be derived from the reinvasion of King's Lynn by enteric fever in 1897, as chronicled in a report by Dr. Mivart, included in the volume—following as it did upon a like epidemic in 1891-92—is that it is, to say the least, false economy to be content with a water service of a doubtful character. Notwithstanding the history of the earlier epidemic, the inhabitants resisted all attempts to substitute a wholesome water service for the sewage-polluted fluid of the river Gaywood; and only by the issue of a provisional order by the Local Government Board has a satisfactory supply at last been secured.

BURY WATER SERVICE.

Dr. Bruce Low's account of his visits to the six gathering grounds of the Bury Corporation Waterworks is full of important statements concerning the conditions under which these works procure and distribute the water drainings from grounds whereon human beings are housed and at work, and whereon manure, slop water, privy contents, etc., are placed; "upon some of them at least there exist conditions which must foul the water," and which would favour the spread of disease, should the specific poison "be introduced upon them from without." We are glad to learn that steps have been taken and are in progress for ridding the gathering areas from pollution.

COUNTY COUNCIL REPRESENTATION.

Included in the volume is a report by Dr. Thomson on the general sanitary circumstances of the borough of Bewdley, made in consequence of a representation by the Worcestershire County Council that the local authority had made default in not enforcing their powers under the Public Health Act, especially as regards water supply, housing of the working classes, and sewerage. We need say nothing more on this matter than that the report demonstrates that the "county council are evidently justified" in the course they took. We could not expect less with Dr. Fosbroke as their adviser in such matters.

THE TRAFFIC IN ABORTIFACIENTS.

THE pestilent traffic in so-called abortifacients has received, we may hope, a heavy blow from the publicity given to its methods and consequences in the recent blackmailing case tried at the Old Bailey before Mr. Justice Hawkins.

In passing, we may note the interesting fact that this was Sir Henry Hawkins's last appearance as a judge at the Old Bailey, and that, in the opinion of those who were present, he has never presided with more ability and impartiality at any of the great trials with which his name has been associated during the twenty-two years in which he has been a veritable pillar of the law.

The facts of the case are remarkable. Three brothers rejoicing in the sinister name of Chrimes had been for some two and a half years carrying on a trade in the sale of "female remedies," described by them in the usual terms as "miraculous," "irresistible," etc. But the brothers contemplated something more ambitious than the establishment of a business in the sale of drugs. Between them they concocted a most nefarious plot. The names and addresses of the women who applied for these "miraculous remedies" were all noted, and in a little over two years the industrious brothers had thus got more or less in their power some 12,000 credulous women! The net was now full, and they proceeded to haul it in. Early in October, 1898, they issued to between 8,000 and 10,000 women a letter stating that the writer—"a public official"—was in possession of evidence that the recipient had committed the awful crime of preventing the birth of a child; that legal proceedings had commenced; and that she would be arrested in a few days unless the sum of two guineas—in postal orders, not cheques—was sent at once to the "public official" to cover his "costs." It requires but little imagination to realise the terrors which must have seized many recipients of such a letter, whether innocent or guilty of the charge alleged.

Copies of the letters were placed in the hands of the police, who acted on the information with promptitude and energy. The three brothers were arrested, and in due time tried, convicted, and sentenced to penal servitude for terms of twelve, twelve, and seven years respectively. Meantime the letters sent to them by their victims were intercepted by the police. Postal orders to the amount of over £800 poured in in a few days, accompanied by protestations of innocence and appeals for forgiveness. The judge, in passing sentence, read two, taken from a large bundle which he held in his hand, for the purpose of illustrating the effect the blackmailing letter would have even on an innocent woman.

The case is important chiefly because it has attracted public attention to, and compelled the authorities to take note of the mischief done by these advertisements of "female remedies for obstructions."

When the case was before Mr. Alderman Newton at the Mansion House he described the publication of advertisements of this class as "an ugly blot on the deservedly high character of our press in general." Mr. Justice Hawkins spoke equally strongly on the subject; and finally, as a rider to their verdict, the jury declared "that such a vile plot, even with all the ingenuity displayed in it, could only have been possible by the acceptance of such immoral advertisements by a section of the press, religious and secular, well knowing their nature." The jury further expressed their conviction that means should be found to suppress such advertisements and the institutions from which they emanate, as they considered them direct incentives to ignorant and evil-minded women to commit crime. Mr. Justice Hawkins received the rider with evident satisfaction, saying, "That is one of the matters, if you will permit me, that I will send to the Home Secretary." We may therefore hope that the police will be instructed to exercise more vigilance than they have done hitherto in suppressing such thinly-veiled incitements to criminal abortion.

The enormous demand for such remedies was brought to light by the trial. This was evidenced not only by the multitude of these costly advertisements, but was proved directly by the startling announcement made by counsel for the prosecution that some 12,000 women in the course of two years walked into the net spread by the Chrimes brothers.

The stuff sent out to their victims by these men was stated to be harmless, in fact a good blood tonic, incapable of producing the effect claimed for it. Mr. Justice Hawkins seemed to regard this as an aggravation of the prisoners' offence because it was getting money under false pretences. But is it not time for medical witnesses to recognise and make known that there are no drugs which have any appreciable ecbolic effect? Women think that there are. Independently of the advertised nostrums there is probably nothing commoner than the sale over the counters of prescribing chemists of pills for the purpose of bringing on a delayed menstruation. The pills generally given for the purpose are those containing iron or aloes, or both; and it is probable that in a few cases the irritation of the lower bowel so produced may bring about the expulsion of an early ovum. In a good many more no effect upon the uterus is produced. In some cases the expected menstruation has not appeared from causes other than pregnancy: from anxiety, from change of residence, anæmia, or some other slight cause; and the drug given may do good by allaying fear, or by improving health. The futility of drugs for bringing on abortion will be illustrated by the following question: There are cases in which medical men for good reasons, and after consultation, think it necessary to induce abortion; but whoever heard of their trusting to drugs to do it?

It is often difficult, in many cases impossible, to make women see any moral difference between early getting rid of the product of conception and using measures to prevent pregnancy altogether. The latter practice is unfortunately far too common, especially among married women. Unmarried lovers, when the hour of temptation arrives, do not stop to think of so-called Malthusian precautions, and it is not wonderful if the one on whom fall the consequences of a moment's folly tries, by what seem to her harmless means, to ward off those consequences, terrible as they are to her.

We have already commented on the state of the law as to constructive murder, and in the lay press there is a general consensus of opinion as to the injustice of treating the induction of abortion, if it happens to be fatal, as murder. There is this to be said for the abortionist: that he at least carries out his share of the bargain, and relieves the patient from the consequences of her fault. But the rascals who advertise remedies which will cure all female irregularities simply take advantage of their victims' fears to defraud them. In our opinion a conviction for obtaining money under false pretences would never be better deserved than in such cases.

We do not wish to minimise the offence of medical men who prostitute their medical knowledge by using it to relieve—for excessive fees—foolish girls from the consequences of folly. But we think the main cause of illicit intercourse is the desire of young people for a life of luxury and display which is incompatible with early marriage, and that the purity of family life in England is to be maintained by training children in clean, plain, and healthy ways, and by giving them such opportunities of forming desirable acquaintances among the opposite sex as shall make them early wishful to enter into the honourable estate of matrimony. Family training on such lines will do more to repress abortion-procuring than heavy sentences on the few abortionists who have the misfortune to be found out.

THE REPORT OF THE MEDICAL OFFICER OF HEALTH OF LONDON FOR 1897.

I.

VITAL STATISTICS.

MR. SHIRLEY MURPHY's annual report is always an interesting document, dealing as it does with the vital returns and administrative details of a huge population of 4,484,717 housed upon an area of 75,462 acres, and, although an enormous amount of information is given in a little over a hundred pages, it may be said to be at once a model of lucidity as well as of conciseness in dealing with subjects which do not readily lend themselves to such treatment.

The first part of the report deals with statistics alone. In common with the country as a whole, the County of London in 1897 presented the somewhat discomforting statistical feature of an increasing marriage-rate along with a diminishing birth-rate—the marriage-rate of 18.5 per 1,000 being the highest since 1878, whereas the birth-rate of 30.0 per 1,000 is the lowest recorded. The enormous differences in the social status and age and sex distribution of the different sanitary areas comprised within the county are reflected in the fact that the highest birth-rate (that of St. Luke) was as high as 45.2, whereas the lowest was only 13.3 (that of St. Martin-in-the-Fields). It is mainly due to the same causes that, although the death-rate of the whole county stood at the respectable figure of 17.7 per 1,000 living, there were certain areas with death-rates far in excess of this, and others—such as those of Lewisham, Hampstead, and Plumstead—which were only between 13 and 14. When allowance is made for differences in age and sex distribution the corrected death-rate of St. Luke (27.8) is the heaviest of all the other forty-two sanitary areas in the county, and there are six others with rates above 25—namely, Holborn, Limehouse, St. George-in-the-East, St. George Southwark, St. Saviour, and the Strand. In most of these a high birth-rate in a poor-class community doubtless plays a prominent part in determining the high death-rate, because of the exceptionally high rate of infantile mortality which obtains in such communities. The rate of infantile mortality for the whole county was 158 per 1,000 births—or, in other words, 26.7 per cent. of all the children born died before they had completed one year of life. This is an excessive mortality, and a very large amount of it is preventable, seeing that it is due to parental ignorance and neglect; but, if we take the parish of St. George-in-the-East, we find that the rate of infantile mortality was 197, and that 31.6 per cent. of the children born failed to complete one year of life.

Mr. Shirley Murphy next compares the mean deaths occurring at each age-period in 1891-7 with the deaths which would have occurred at similar age-periods if the death-rates of 1881-90 had still been maintained; the difference between the two sets of figures represents the number of lives gained or lost at each age-period by fluctuations of mortality, and by applying to these differences the figures representing the mean future lifetime, as calculated from the London Life Tables, 1881-90, the actual gain or loss is expressed in terms of "life capital."

A table is given showing that, calculated in this way, there has been a mean annual saving of 3,587 lives, and this represents a mean annual saving of 142,460 years of "life capital." A further table shows that the death-rate at "all ages" for each sex has progressively declined, but that when the figures for separate age-groups are considered, the extent of the decline varies considerably in different age-periods, and that in some periods there has actually been an increase in the death-rate.

Having regard to the special importance of the subject and to the universally recognised necessity for adopting in the immediate future some measures which are calculated to reduce the preventable mortality from tuberculosis, the following facts collected in the report will be of interest. It should be pointed out, however, that these death-rates are uncorrected for differences in the age and sex constitution of the populations—a circumstance which largely detracts from their value as a means of comparing the true incidence of the disease on different London sanitary areas.

Death-rates per 100,000 Living in each Sanitary Area.

Sanitary Area.	Tabes Mesenterica.	Tuberculous Meningitis.	Phthisis.	Other Tuberculous Diseases.	Respiratory Diseases.	Other Diseases.
Paddington	14	19	115	12	240	947
Kensington	10	22	148	27	263	993
Hammersmith	2	29	137	25	295	1,059
Fulham	22	24	154	11	309	1,088
Chelsea	7	27	176	20	314	1,128
St. George Hanover Square	10	21	118	14	213	847
Westminster	25	25	273	19	324	1,169
St. James	13	40	226	22	292	1,055
Marylebone	15	26	175	21	332	1,125
Hampstead	8	28	76	10	175	785
Pancras	18	27	202	25	339	1,172
Islington	26	24	145	19	282	983
Stoke Newington	6	23	117	12	193	976
Hackney	21	24	143	20	270	1,086
St. Giles	26	21	307	18	304	1,076
St. Martin-in-the-Fields ...	—	8	260	8	244	1,007
Strand	13	34	323	30	361	1,265
Holborn	10	26	272	33	515	1,354
Clerkenwell	23	35	233	30	429	1,400
St. Luke	19	46	310	29	555	1,488
London, City of	3	40	185	23	364	1,384
Shoreditch	29	30	206	21	400	1,382
Bethnal Green	42	31	200	15	445	1,334
Whitechapel	29	40	255	15	460	1,168
St. George-in-the-East ...	46	27	278	35	566	1,615
Limehouse	26	26	253	27	436	1,643
Mile End Old Town... ...	21	29	139	24	308	1,275
Poplar	38	27	192	20	351	1,260
St. Saviour Southwark ...	52	60	325	24	450	1,429
St. George Southwark ...	41	31	291	18	517	1,403
Newington	31	36	222	26	370	1,342
St. Olave	9	26	270	35	418	1,263
Bermondsey	37	35	204	20	425	1,393
Rotherhithe	12	25	162	27	376	1,215
Lambeth	15	30	165	18	283	1,146
Battersea	16	27	150	24	242	1,092
Wandsworth	12	22	113	12	190	899
Camberwell	17	23	150	18	303	1,056
Greenwich	26	16	146	17	253	1,156
Lewisham	16	18	97	14	161	860
Woolwich	29	17	193	22	285	1,156
Lee	23	23	112	18	163	887
Plumstead	21	15	161	16	197	901
London	21	26	172	20	309	1,130

The zymotic death-rate for London in 1897 was 2.56, the lowest rate since 1891, and a lower rate than any of twelve next largest English towns, except Bristol and Bradford. The Eastern groups of sanitary districts had the highest mortality from the principal zymotic diseases—namely, 3.3 per 1,000 living, and the Western group the lowest (2.1).

In dealing separately with the diseases which are included in the zymotic rate small-pox receives consideration at some length. There were 104 cases notified and 16 deaths from small-pox in 1897 in London. Extracts from the reports of medical officers of health are given which furnish information in detail with reference to the cases notified, and the difficulty attending the diagnosis of the disease is exemplified in the fact that about 25 per cent. of the cases were wrongly notified, the majority proving to be chicken-pox.

The following table, in which the number of deaths at each age-period is expressed as a percentage of the total deaths from small-pox at "all ages," very clearly indicates the relative age incidence of the disease and the value of infantile vaccination.

Age-period.	All Ages.	0–1	1–5	5–20	20–40	40–60	60–80	80 and upwards.
Vaccinated... ...	100	1.7	2.6	17.9	57.0	17.6	3.0	0.2
Unvaccinated ...	100	16.6	23.9	33.0	20.4	5.2	0.9	0.0
No statement ...	100	12.8	11.9	23.8	34.9	13.1	3.3	0.2

The London vaccination returns show a record of an increasing proportion of children born in London who are not vaccinated, and in 1895 the number had reached the alarming proportion of nearly 25 per cent. of the total births. Mr. Shirley Murphy points out that the number has especially increased since the appointment of the Royal Commission on Vaccination, and that the figures foretell numerous deaths from small-pox in the future.

THE ROENTGEN RAYS IN MILITARY SURGERY.

At a meeting of the Roentgen Society on Tuesday, January 10th, Major J. C. Battersby, R.A.M.C., read a paper illustrated by lantern slides on The Present Position of the Roentgen Rays in Military Surgery. Major Battersby was in charge of the Roentgen Apparatus with the Nile Expeditionary Force in the Soudan.

The Equipment of Military Hospitals.

He said that he was in a position to state that most of our large military hospitals at home and abroad were now provided with a most efficient *x* ray outfit, and that every inducement and encouragement was offered to officers by the Director-General of the Army Medical Service to acquire a thorough practical knowledge of this most important adjunct to professional methods. Much doubt formerly existed as to whether the process was applicable to the arduous and ofttimes difficult requirements of field service. Surgeon-Major Beevor, however, had demonstrated that successful results could be obtained in the cold and mountainous regions of Northern India, and only those who had a knowledge of that country could thoroughly appreciate the difficulties encountered and the manner in which they were overcome.

Climatic Difficulties.

The Principal Medical Officer of the Egyptian army, in answer to inquiries by Major Battersby, had written: "Beevor worked chiefly in cold regions; your efforts will be carried out in intense heat, where the temperature in tents is frequently over 120° F." Major Battersby expressed his acknowledgements for the great care and attention bestowed upon the construction of the coils before they left London, and also the ready and able assistance he had received from the warrant officer of his own corps who was selected to help him. Before leaving Cairo, Major Battersby took the additional precaution of having very thick felt covers made to surround the outer boxes containing the coils and storage batteries. By keeping these constantly wet the internal temperature was considerably reduced, as evaporation in the Soudan was very rapid. Between Wady Halfa and Abadieh all the apparatus had to travel for two days and a night in an open truck, exposed during the daytime to the fierce heat of a blazing sun, and by keeping the felt wet every two hours the journey's end was reached without mishap. Thermometric observations later on proved that when the felt coverings were kept damp the temperature in the centre of Mr. Dean's coil did not exceed 90° F.

The Value of the Roentgen Rays.

After considering the types of cases in which the Roentgen rays were best calculated to render service to the military surgeon, and giving a classification of surgical cases of various kinds founded upon one drawn up by Dr. W. S. Haughton, Demonstrator of Anatomy, Trinity College, Dublin, he proceeded to say that the Roentgen rays had proved of great value in military surgery, as lead was very opaque to the rays. The erratic course often taken by bullets after entering the body rendered their discovery by ordinary means exceedingly difficult, if not in some cases quite impossible. After the battle at Omdurman 121 British wounded were conveyed to the surgical hospital at Abadieh. Of this number there were 21 cases in which the bullet could not be found, nor its absence proved by ordinary methods. In 20 out of these 21 cases an accurate diagnosis was arrived at with the help of the rays. The odd case—a severe bullet wound of the lung, was too ill at the time to be examined. To confirm the beneficial results obtained by means of the Roentgen rays on field service, he quoted with satisfaction the opinion of the senior medical officer in charge of the hospital, who stated:

> The Roentgen rays proved of invaluable assistance in localising the exact position of bullets, and in many cases rendering probing of wounds unnecessary. In many cases the *x* rays prevented much suffering to the patient which would have been caused by probing, the use of the finger, or enlarging the wound in the ordinary search for the bullets, as the skiagraph at once indicated the exact position of the bullet.
>
> In other more complicated cases the Mackenzie Davidson method localised the exact potition of the bullet, so that the surgeon was at once able to come to the conclusion if operative interference was judicious or otherwise. If considered advisable, the removal of the bullet was much facilitated by the diagram previously indicating exactly where the projectile was to be found.

Dr. Haughton, in his address to the University of Dublin Biological Association, had well said:

> The *x* rays have furnished the army surgeon with a probe which is painless, which is exact, and, most important of all, which is aseptic—qualities not possessed by the older though ingenious instrument bearing Nélaton's name.

Screen or Plate.

Major Battersby said that his own experience had shown that a short exposure might in some cases give better results than a long one. His first experience of this was in a case in which a bullet was supposed to have lodged about the orbital region. He gave a fifteen minutes' exposure with a 10-inch Dean's coil. Not being satisfied with the result, he repeated his observation, when, after seven and a half minutes, the patient's head began to shake, and the coil was immediately stopped. To his satisfaction he obtained an excellent plate.

In the Soudan some sixty observations were made by means of the screen and photographic plates, resulting in this conclusion, that each case had to be studied as a special problem with regard to the intelligent adaptation of detail and method.

The accurate localisation for practical surgical purposes, he continued, of foreign bodies in the tissues is, I think, the consummation of skiagraphic art. A bullet, for instance, in a loaf of bread can be localised, with the fluorescent screen, by means of acupuncture needles, but such a procedure is scarcely applicable to patients suffering more or less from shock and in a depressed and nervous condition. With a bullet situated in the upper or lower extremity it is difficult, from a single skiagraphic observation, to say whether the projectile lay in front or back of the bone. A cross skiagraph at right angles to the first at once solved the problem, and by this method most of the cases were localised in the Soudan. For deeper structures the best results were obtained by the aid of a modification of Mr. Mackenzie Davidson's localising apparatus.

The Roentgen Rays on Field Service.

Major Battersby then turned to the consideration of the application of the process to the requirements of field service. For this purpose it was essential that the outfit should be made as light as possible in order to be portable and suitable for mule, camel, or human transport, as often narrow defiles and mountainous passes had to be traversed. Another important point was, that the constituent parts of the apparatus should be small enough to fit in panniers, to hook on either side of a pack saddle on a mule's back. The most serious difficulty at present was the best method of generating the primary electrical current for charging the storage batteries or working the coil direct. Primary batteries for many reasons were unsuitable, and not to be recommended. In the Soudan a small dynamo driven by means of a tandem bicycle answered admirably, and was readily transported by rail and river to

Abadieh, but as at present constructed it was unsuited for mule, camel, or human transport.

An ideal apparatus would consist in a statical or friction machine—some modification, for instance, of Mr. Wimshurst's, by which the focus tube could be excited direct. In such a design many physical difficulties arose, but they were not insurmountable, and when surmounted the achievement would render it possible to reduce the present apparatus very considerably, by dispensing with primary and storage batteries, dynamos, bicycles, and the induction coils.

THE OUTFIT IN THE SOUDAN CAMPAIGN.

The Roentgen ray outfit which was sent out to the Soudan consisted of a 10-inch coil made by Mr. Dean, of Hatton Garden. This coil was specially insulated, and with the condenser, commutator, interruptor, ammeter, voltmeter, small electric lamp, fluorescent screen, and two focus tubes, was enclosed in a strong oak box. It was most complete and satisfactory, but for the requirements of field service, too heavy for canal or mule transport. Consequently a special arrangement of ropes was made, by which means and by the aid of a long pole it could be carried on the shoulders of four men like an Indian dhoolie.

Another 10-inch coil taken was designed by Mr. Apps. At Major Battersby's suggestion it was made in two separate parts, the coil proper being enclosed in a teak case, and the condenser, commutator, contact breaker, etc., in another. By this method the weight was evenly divided, and the two boxes could be readily carried on either side of a mule or camel, or by coolies over very mountainous districts. This coil gave entire satisfaction. In addition, a small 6-inch Dean's coil was taken on to Omdurman from Abadieh, the headquarters of the apparatus and base surgical hospital. The thick felt covers procured at Cairo, by which the internal temperature of the coils was much reduced by the process of evaporation, were constantly kept damp, and no doubt helped to preserve the insulating material of the coils.

The storage battery consisted of eight separate E. P. S. cells, which proved more useful than if they had been permanently fixed in a wooden case, as the voltage could be regulated, increased, or diminished as the case required, and also if a cell become injured or a plate buckled, it could be taken out of the circuit at once, and a spare one substituted. These cells, when put in series, answered admirably, but owing to the excessive heat the water evaporated rapidly from the acid solution, and an apparent tendency for the cells to discharge in some unaccountable manner was observed. A general lowering of the specific gravity of the electrolyte was noticed, presumably owing to the unusually high temperature at which the cells had to be worked. In no case when the cells were fully charged did the hydrometer register a specific gravity of 1.22. Major Battersby laid stress on this observation, as in the absence of a voltmeter, the exact condition of the cells when in use could only be judged by a hydrometer, the discharge being stopped when a specific gravity of 1.15 was recorded at 60° F. A table of revised specific gravities for each increase of temperature above 60° F., for reference in warm climates, was urgently required.

Four 10-inch ordinary bianodic focus tubes were taken. They were obtained from Mr. Dean, and personally tested by Major Battersby before leaving. The platinum wire terminals fused through the glass ends of the tube were protected by a ferrule of thick indiarubber, and each tube wrapped in cotton wool and carefully packed in a small wooden box, which was kept under personal supervision. Two of these tubes did most excellent and extensive work, one being better for screen work, while the other gave more satisfactory photographic results.

The fluorescent screen was most useful at night, but unsatisfactory to work during the day owing to the intense sunlight, which, in spite of all efforts, penetrated the hood, no dark room being available. The surface of the screen was protected by a layer of celluloid, which in a warm and dusty climate was a matter of no mean importance. The great advantage of screen work in military surgery depended upon the fact that, under suitable conditions, any part of the body could be explored without delay. The perfecting therefore of the screen apparatus for daily work was of some importance.

With regard to photographic materials and developers a good deal had to be learnt. Glass plates alone gave satisfactory results. A variety of different sizes were taken—Wratten and Wainwrights, Pagets, Lumière, and a small supply of Cadett lightning. Those with the thinnest film appeared most suitable for the intense heat, but thick or thin plates could not have been saved without the aid of an alum bath, as the water for developing was comparatively hot, no ice being procurable, consequently the more delicate shades of development had to be sacrificed. Of developers rodinal, hydroquinone, metol, and pyrogallol were used. There was a marked tendency for development to proceed at a very rapid pace, often making the picture flash up at once, when the greatest precautions were necessary to preserve the result. As a rule the developing work was performed at 3 A.M. and even then (the coolest time) the temperature in the mud-brick dark room varied from over 90° to 110° F. An atmosphere laden with dust and constant dust storms was most trying. Eleven plates were destroyed one night by a fierce storm which blew off the improvised mud roof. "Tylar's dark bags" were most useful, as the wooden plate holders were apt to shrink and consequently light to gain admission.

It was discovered, fortunately before leaving Cairo for the front, that the July heat, about 95° in the shade, was affecting the gutta percha insulated wire brought out from England. The insulating material had commenced to crack in different places.

Through the kind assistance of M. Maroni, electrical engineer of Cairo, and some Italian-made insulated wire of different grades, similar to that used throughout Cairo, was obtained from the telephone company. It answered admirably, and withstood the heat splendidly.

Major Battersby's headquarters were at Abadieh, a small village on the Nile, about 1,250 miles from Cairo, and 9 miles north of Berber. Here the Egyptian troops had constructed a number of large, well-ventilated, mud-bricked buildings, which admirably suited all the requirements of a large surgical hospital in the field.

THE BICYCLE AS A GENERATOR OF ELECTRICITY.

The method by which electricity was generated for charging the storage batteries which worked the induction coils and illuminated the lonely desert for the first time with electric light, and also the red developing lamp, after the "specially prepared candles" had been resolved by the excessive heat into their oily constituents, was as follows: The pulley of a small dynamo was connected by means of a leather strap, with the back wheel of a specially-constructed tandem bicycle. The required velocity for the dynamo was thus obtained. Having carefully adjusted the circuit with the storage battery, and also with the voltmeter and ammeter, the warrant officer took his position on the seat of the bicycle and commenced pedalling. When 15 volts and 4 ampères were registered, the switch close to the handle of the bicycle was opened and the charging of the battery commenced. As the resistance became greater a sensation of riding up hill was experienced, and the services of an additional orderly requisitioned for the front seat. This bicycle practice was generally carried out in a shade temperature of 110° F., so that everyone was glad when, the switch having been turned off before pedalling ceased in order to avoid any discharge from the battery, the machine was brought to a standstill.

The cells used were the ordinary E.P.S. cells, 40 ampères per hour type, with a voltage of 2 volts per cell, and a discharge of 4.5 to 6 ampères. The cells while being charged required the dynamo to give a current of 15 volts and 6 ampères. This multiplied together gave an electro-motive force of 90 Watts, and, as 760 Watts = 1 electric horse power, ⅛ horse power was necessary to drive the dynamo for charging. It was also necessary to have an extra ⅛ horse-power to overcome the resistance of the working parts and the opposing force contained in the full batteries, hence the necessity of tandem seat for an extra man.

LOCALISING APPARATUS.

Major Battersby then showed a photograph of a modification of Mr. Mackenzie Davidson's localising apparatus by means of which he was enabled with mathematical accuracy to localise two bullets which had entered through the shoulde and lodged in each case near the shoulder-blade. Another bullet was localised with similar precision in the pelvic cavity.

CASE I.—The patient, a private in the Seaforth Highlanders, while standing half-right firing at Omdurman, was hit about 1 inch behind and 1 inch below the anterior superior spine of his left ilium. When examined at night with the screen, the lateral view distinctly showed the bullet, which next day was localised. The vertical depth from the surface to the centre of the tip of the bullet was 1¾ inch, the centre of base of bullet 2 inches, so that the depth, direction, and exact position of the bullet were told to the operating surgeon.

After the battle at Omdurman 121 British officers, non-commissioned officers, and men were brought back wounded to Abadieh. Of this number there were 21 cases that could not be diagnosed accurately by ordinary surgical means. By the help of the Roentgen rays, which were used about 60 times, we found the bullet or proved its absence in 20 out of these 21 cases. In the odd case the patient was so ill with a severe bullet wound of the lung that it was not considered justifiable to examine him at the time.

Invaluable aid was afforded by the Roentgen rays in a class of bullet wound of frequent occurrence. Fortunately the powder manufactured at Omdurman and amongst the Chitral Hills was not good, and consequently the initial velocity of projectiles was not great. The result was that a number of wounds were produced by spent bullets. In former days, as there was no wound of exit, much doubt existed as to whether the bullet had lodged in the limb or not, and consequently a good deal of probing had to be resorted to. Now all this was changed.

In conclusion Major Battersly showed a number of skiagraphs taken in the Soudan illustrating among others the following cases:

CASE II.—Private W., Lancashire Fusiliers, bullet wound back of left hand. Skiagraph showed that the metacarpal bone of the middle finger was injured but no bullet present.

CASE III.—Private W., of the Cameron Highlanders, had a bullet wound of his right forearm. The skiagraph gave a negative result and as in Case II the injury was evidently produced by a spent bullet. In neither of these cases had probing to be resorted to, and each healed in a few days with simple antiseptic dressing.

CASE IV.—Private H., 2nd Rifle Brigade, bullet wounds through outer and inner side of left arm and a third wound near inferior angle of left scapula. Three pieces of bullet were found at outer side of humerus. No bullet was seen in the chest and consequently there was no necessity to probe for it.

CASE V.—Private J. B., Royal Warwicks, received a bullet wound near the tip of the right shoulder behind the acromial end of the clavicle. The skiagraph taken through the chest without removing the dressings and bandages was faint, but the front view revealed the bullet at right angles to the axillary border of the scapula about 2 inches below the glenoid cavity. The outer tip of bullet just touched axillary edge; it was probably in the subscapular space. This case was localised by Mr. Mackenzie Davidson's method with the following result: The depth from the skin of the back to the centre of the tip of bullet was 2 inches and the centre of the base of bullet 1¼ inch from the surface. The bullet was easily extracted in the presence of the Principal Medical Officer, who stated that the result was "highly satisfactory." In order to avoid unnecessary pain and disturbance to the patient suffering a good deal from shock, the skiagraphs were invariably taken without interfering with any of the dressings. Consequently such substances as iodoform and perchloride of mercury preparations interfered materially with the skiagraphic effects, but not with practical diagnosis and surgical results.

CASE VI.—Sergeant S., Lincolnshire Regiment, received a bullet wound at the inner part of the left supraorbital ridge. The projectile was supposed to be lodged at the back of the orbit, as the eye was protruding and the sight destroyed. When studied closely the skiagraph showed outlines of the bones of the upper part of the face, including the orbital cavity, as well as the fleshy parts of the forehead and nose, but no trace of a bullet. The eyeball was enucleated a few days afterwards, but no foreign body was found. The injury had evidently been produced by a spent bullet, which drove a splinter of bone into the eye.

CASE VII.—Private L., Lincolnshire Regiment, bullet wound of left thigh. The front view showed a bullet projecting from the outer side of the femur about the middle of the shaft. The side view revealed the projectile lying parallel with the shaft on the upper side. The bullet was thus localised by these two photographs, and easily removed.

CASE VIII.—Private of the Cameron Highlanders; bullet wound of the left leg. The skiagraph was taken some time after the injury, and showed clearly the fracture of both bones, the tibia especially being very severely damaged and suffering from necrosis. Several splashes of lead were also seen in the wound.

CASE IX.—Private L., Seaforth Highlanders, bullet wound of left ankle. The front view showed a bullet with its broad end towards the inner side. In the side view the bullet was seen in the joint between the astragalus and scaphoid. An incision over the place indicated revealed the bullet, which was readily extracted.

CASE X.—Private H., Seaforth Highlanders. Bullet wound on the inner side of right knee, over inner condyle of femur, about 2 inches from inner border of patella; knee-joint much swollen and inflamed. The front view revealed the bullet in the inner condyle of the femur, the long axis parallel to the leg. The lower end reached to the articular surface of the condyle; the upper end was about two-thirds up the condyle. The bullet was about a quarter of an inch from inner margin of condyle. The side view showed the bullet about midway between the anterior and posterior borders of the internal condyle of the femur, the lower end touching the articular surface, and the long axis nearly parallel to the limb. The patella was widely separated from the front of the femur, and the front of part of the condyle appeared to be much comminuted. Operation revealed the bullet embedded in the inner condyle. It was easily extracted.

CASE XI.—In this case the skiagraph was taken with a small 6-inch coil at Omdurman while the action was going on. Owing to the intense sunlight it was not possible to detect the bullet by means of the screen, as light penetrated through the hood. The plate was much injured during the process of development by the intense heat and want of ice, but it showed the bullet flattened out like a shilling at the lower end of the right leg.

CASE XII.—Private T., 1st Northumberland Fusiliers, was brought to hospital, having received a blow on the back of his left hand. There was considerable pain, but no definite diagnosis could be made. His hand was examined in the dark room with the screen, but owing to the constant flicker nothing wrong could be detected. A skiagraph was immediately taken and developed, which at once demonstrated a very fine oblique fracture of the metacarpal bone of the ring finger.

THE MIDWIVES BILL.

OMISSIONS FROM THE NEW BILL.

WE printed last week, in connection with the new Bill promoted by the Midwives Bill Committee, the reports of the Special Committee of the General Medical Council. It will have been noticed that the new Bill meets most of the points raised by the General Medical Council. The most important omission appears to occur with regard to the definition of the term "midwife," which the General Medical Council desired should be "a woman who undertakes for gain to attend cases of natural labour, and who is not registered under the Medical Acts." The rights of persons registered under the Medical Acts are referred to in Clause 15 of the new Bill, although its wording would be materially improved if they were referred to as persons registered under the Medical Acts in place of the phrase "duly qualified medical practitioners." The other omissions from the definition involves a principle of great importance. The General Medical Council has advised the Lord President of the Privy Council "That the regulations under which licensed midwives are required to practise should include provisions securing that the midwife shall immediately seek qualified medical assistance in every case which presents symptoms of difficulty, abnormality, danger, or disease on the part of the mother or of the newborn infant." The only paragraph in the new Bill which can be held to have any bearing upon this point is Clause 5 (3) (*d*), which directs that one of the duties of the Central Midwives Board shall be to frame rules for approval by the General Medical Council "regulating, supervising, and restricting within due limits the practice of midwives." The promoters of the Bill, therefore, appear to contemplate leaving this matter, which the General Medical Council considered sufficiently important to introduce into the definition of the term midwife, to be determined by the proposed Central Midwives Board, with the approval of the General Medical Council. In a matter of so much importance, however, it would have been more satisfactory had the point that a midwife licensed under the Bill would be entitled to attend cases of natural labour only been distinctly laid down in the Bill itself, although, as was recognised in the *Memorandum* appended to the Midwifery Nurses Bill of the British Medical Association, it would be necessary to leave it to the Board to define the circumstances which would render it obligatory on a midwife to demand medical assistance.

When the new Bill is further compared with the Midwifery Nurses Bill of the British Medical Association, it will be seen to differ in little, the full title of the Association Bill being "A Bill for the Protection of Pregnant and Lying-in Women and Newly-born Children, by Promoting the Better Training of Women as Midwifery Nurses, and their Compulsory Registration as such." The principle embodied, first, we believe, in this Bill—that the provisions of the Bill should apply to all persons (not being registered medical practitioners) who habitually and for gain attend or undertake to attend lying-in women—is accepted in the new Bill, but the other principle—that a midwife should attend only cases of natural labour—is, as has been said, omitted.

Another provision which has not been embodied in the new Bill is that which would have enacted that no midwife should be entitled to recover any fee or charge for attendance as such, unless she has either personally or by a substitute, who must be a person licensed under the Act, performed the duties of a midwife as laid down by the Board.

The new Bill makes no reference to the control of lying-in homes, which was dealt with in Clause 17 of the Midwifery Nurses Bill, and as to which, under Clause 6 (4) (*f*), the Board would be directed to frame regulations both for their conduct and inspection.

These would appear to be the most important differences, but many other points remain unnoticed. Many, however, are sequential to the failure to adopt the principles to which we have referred.

AN ALTERNATIVE SCHEME.

Births, Midwives, and Doctors.

The criticisms of former Midwives Bills have been directed mainly to details of the proposed measure, but it has been clear that the objection on the part of many has been not merely to the details, but to the principle of affording any legal recognition to midwives. This has not always been distinctly stated; perhaps it has not always been realised by the critics themselves. Others, again, who have not concealed their dislike to the principle of recognising midwives have not proposed any alternative.

Dr. Thomas M. Watt, judging from a pamphlet[1] which he published some little time ago, is to be numbered among those who are opposed to a Bill in any shape, but he is ready with an alternative scheme. He sees very clearly the direction in which his arguments lead, and states his conclusions with candour; it has, therefore, seemed to be desirable to give the outlines of his scheme rather fully.

The earlier part of his pamphlet, which is directed to a criticism of the Midwives Registration Bill of 1898, is, in fact, now out of date. With regard, however, to the estimates of the number of women now practising as midwives in England and Wales, which have varied from 10,000 or 15,000 to 4,500, he points out that in the census of 1881—the only recent occasion in which they have been enumerated separately—they were returned at 2,648, but concludes that no reliable estimate can be made. He then takes the number of medical men registered in 1896 (which was 21,565) and the number of births in that year (which was 915,309), and calculates that this gave "an average of 43 births to each qualified practitioner. Consultant physicians and surgeons," he continues, "do not practise obstetrics; but, if we allow only 1 confinement a week to each obstetric practitioner, the work would have engaged only 17,565, or 4,000 fewer than the number registered.

"Moreover," he adds, "the rate of increase in the profession is three times that of the population, so that year by year the average of births to practitioners is becoming less. In 1887 it was 57; in 1896, 43. Surely these authentic facts and figures may be taken as demolishing this pretended deficiency of qualified attendants and the consequent necessity of midwives."

In concluding this part of his argument he writes: "To sum all up, there exists among us, by universal acknowledgment, a crying social evil—a torturing and murderous trade affecting women and infants, mostly of the poor. What is required by way of reform is a measure that shall be honest, sane, radical, thorough, and truly humane." He contends that the State recognition of midwives is unstatesmanlike:

> First as failing to take the best and safest guarantees for the safety of the nation's mothers in their time of need, when contributing, with the fruit of their bodies, to the nation's continuance and growth; and, secondly, as being retrograde in its proposal to level down the standard of medical service for needy citizens beneath what is provided now even under the Poor Law—for the Local Government Board has absolutely refused to sanction every endeavour of Poor-law guardians to substitute certificated midwives for medical officers at confinements. The life and well-being of all citizens—be they of high or low degree, rich or poor—are alike the care of the State, while the claims of humanity and generosity are not diminished, but increased and intensified, by poverty. Yet the Bill would penalise poverty with avoidable risks to health and life, by foisting on the poor (and *only because they are poor*), under State sanction and guarantee, a set of women to whom it is not intended or pretended that a thorough knowledge of their calling shall be imparted, but whose only recommendation is their cheapness, based on their incompetency.

He argues that the whole matter turns

> on the one point of the pretended impossibility of securing, in any conceivably practical manner, the same quality of aid in the perils of childbed as rich lawmakers are careful to engage for their own women. If, on the contrary, such an aim can be shown to be attainable, and without the creation of any new agencies, then I contend with all earnestness that any scheme falling short of this is no better than trifling with the mischief, and savours greatly of a meanly ungenerous proffer, from our property-owning legislators, of a cheap and nasty article that they would disdain to use among themselves.

Medical Relief under the Poor Law.

Dr. Watt next proceeds to the constructive part of his essay. He states that under the Poor Law

> every woman unable to pay a doctor has the right, before or at the time of her confinement, to claim—from the relieving officer or, in his absence, from the local overseer—an order for the services of the district medical officer (commonly known as the parish doctor), or for admission to the union infirmary. The issue of such orders is by no means restricted to the destitute. In the vast agricultural districts, where a labourer's weekly earnings run from 10s. to 12s. (when he can find work), it falls to the general body of ratepayers to supplement his less than subsistence wage by paying the whole cost of medical attendance for him (if he be not in a sick club) and his family. In those parts application for those orders, when a confinement impends, is practically universal among that portion of the community.
>
> But orders, he continues, need not be limited in their application to the union medical officers only. Guardians *may*, and some of the more enlightened Boards actually do, arrange that such orders shall be available for other resident practitioners. Thus (as Dr. Rentoul, of Liverpool, informs us in a pamphlet, to which I am indebted for many of my facts on this part of the subject) at Saddleworth, in Yorkshire, any doctor in the union who so desires may be appointed Poor-law district medical officer, and the patient presents the order to the doctor of his or her choice upon the official list. Payment is not made by salary, but at a fixed rate per case, be it one of tooth extraction or pneumonia. For confinements, however, the fee comes under a specific Article of the Poor-law Commissioners affecting the whole country, the minimum being 10s. On somewhat similar lines, the Whitechapel Board intimated in 1895 to all resident doctors their willingness to pay any of them according to a certain scale of fees for a visit and medicine to the destitute person in urgent need of relief when the Board medical officer was not available. Finally, guardians are empowered by statute to pay any medical assistance rendered to any poor person *without any order*, by reason of accident, bodily casualty, or sudden illness.

Dr. Watt argues that the pride which would reject State medical aid is false and unfounded, and that it is no more disgraceful for poor persons "to avail themselves of free *curative* medicine, paid for from the common purse for the common good, than for their 'betters' to accept 'gratuitous' *preventive* medical aid, paid for in exactly the same way, out of the common fund, to which the poorest householder contributes." For persons, he continues, of the wage-earning class who are temporarily embarrassed by being thrown out of work by sickness, and "who are too self-respecting and too honest to remain indebted to their fellow citizens for public medical assistance supplied in that emergency, it is already provided that they can arrange with the guardians to have it *upon loan*, to be refunded as improvement in their circumstances may permit."

Medical Recusants to Pay for Exemption.

Dr. Watt proposes that under the plan he sketches:—

> every registered medical person could claim to act under the local Board of Guardians at the tariff of charges to be fixed by the Local Government Board as representing the State, and in each instance the official order (or, in emergencies, the call from the patient) to attend would be taken to the doctor selected by the patient. Every such doctor would make a return to every meeting of the Board of Guardians, as is done now by the parish doctor, and in every case the patient's right to such free attendance would be determined, as now, by the Board and its officers. Moreover, as the medical profession is a monopoly like the licensed victuallers, created by the State in the interests indeed of the public, but still, like all monopolies, bringing distinct advantages to those enjoying it, there could be, to my thinking, no just ground of grievance if all members of the profession should be required, as a condition of admission to its benefits and privileges, to engage to honour and act upon these calls of the State, accepting the fees fixed by State regulations, or to pay handsomely to the State year by year for exemption.

Medical Relief by Voluntary Agencies.

The voluntary agencies, charitable or self-supporting, which provide all or part of the cost of medical attendance at confinements are then passed in review: 1. The Friendly Societies, it is stated, have not done much. The Hearts of Oak and Royal Standard pay from £1 10s. to £2 to a member when his wife is confined, and the Manchester Unity of Oddfellows contemplate the establishment of a "maternity benefit." 2. By paying from 3d. to 6d. a week during pregnancy to a provident dispensary a woman can secure the attendance of the doctor she prefers. 3. Charitable dispensaries pay their medical officers from subscriptions, and supply

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[1] Registration of Midwives; an Appeal to its Supporters. The Bill of 1898; its Futility Exposed and a Practicable and Efficient Alternative Suggested. By Thomas M. Watt, M.A., M.R.C.S.Eng., L.R.C.P.I., L.M. Revised and reprinted from the *Ethical World*. London: Watts and Co., 17, Johnson's Court, Fleet Street. Price 1d.

"attendance and medicine gratis to those who, too proud to claim their statutory rights, are yet not above accepting doles." 4. The maternity club he regards as the organisation most generally applicable. It supplements "members' payments by subscriptions or subsidy from the well-to-do, as in the clothing, blanket, and coal clubs common especially in country villages." "From twenty-five years' experience," he adds, "I can testify personally to the advantages of such a club in a village. It was managed and supported by the good lady at the Hall. Every working man's wife on the estate was only too glad to pay in to it, and would have looked askance at any midwife." 5. Maternity hospitals, he urges, should under the scheme sketched cease to be charitable institutions, as the needs of all unable to contribute to the expense of medical attendance would be met by the State, though—

> they might be used by the State (on condition of its being a contributory) in order to supplement any deficiency in the local State provision for operative cases among its clients, or for those of them requiring removal from their abode to more sanitary surroundings. Except for State cases and any of sudden emergency, admission to the hospitals should be made conditional on prepayment from the patient, as with the club. Indeed, every such hospital should be the centre of a maternity club, organising on self-help lines the actually existing extern department for attendance at patients' homes, so far as its service extends to patients above the financial level warranting State aid. Outside practitioners desiring it should be affiliated to the hospital as some are now at Newcastle and Oxford. Whether in the hospital or at her home every patient would thus have at her call her own doctor. The whole medical staff should be paid, as is the nursing staff. If doctor or nurse inclined to lend the charity their support it would be open to them as to the rest of the community to subscribe to the funds.

Provision of Nurses.

Since nurses are necessary as well as doctors, it is suggested that these must be supplied by guardians to those patients who resort to the State for medical aid, and that for lying-in members of clubs and dispensaries they might be supplied by the system known as the Holt-Ockley, which is managed by "The Benefit Association for Providing Nurses for the Sick in Country Parishes" (12, Buckingham Palace Road, London).

Supervision by Local Government Board.

As to the organisation of the system, Dr. Watt has the following observation:

> Let the Local Government Board (until a separate department of Public Health shall have been created with a Cabinet Minister at its head) examine these various methods, select and, if need be, improve the most adaptable, and finally, through our local councils, systematise and extend them everywhere, giving them legal status, organising and correlating them into a national service. The task would be comparatively simple. Let us suppose the Local Government Board decided on the Maternity Hospital and Club and the Nursing Association as the forms most generally feasible. It would order the district councils, town councils, and vestries to see that every parish or ward, or convenient group of these, should be provided with these institutions. The Central Board would fix the rate of contributions, the fees or salaries, and the maximum income-limit of beneficiaries. As with our elementary schools, it might be open to voluntary effort to maintain those already in the field, and to form new ones; but if any were not adequately supported and conducted by spontaneous philanthropy, State aid from rates or taxes would be called for, with concurrent popular control. In most cases it would, no doubt, fall to the parish and district councils to institute and administer them subject to the Central Board. When a member's contribution to the fee was paid up, the clerk to the council or secretary of the committee would give her an order. This in due time she would send to a doctor, who would subsequently present it as voucher for his fee.

In conclusion he says:

> I think it will be evident that, by the methods suggested, skilled medical attendance could be provided for every child-bearing woman, however poor. In that case to propose anything less would be heartlessly wicked. With such attendance secured the midwife becomes a superfluous nuisance, and in the interests of the common weal it should be made a criminal offence for anyone not legally qualified to undertake attendance at a confinement except until such time as a medical practitioner—to be sent for on the instant—shall arrive to become directly responsible for the case. Let no confinement fee be payable to the latter unless he or she shall have been personally in charge at the birth to earn it. In the other event, let account be taken only of the visits.

THE PLAGUE.

THE SPECIAL COMMISSION.

SURGEON-GENERAL HARVEY, Director-General and Sanitary Commissioner, in his evidence before the Plague Commission in Calcutta on January 3rd, stated that the plague germ had sprung from a pre-existing germ, and that it would not flourish except in an environment of dirt and poverty. The question of sanitation in India was a most serious financial question, and that, were sanitation in India to be placed on the same basis as in England, a sum of £53,000,000 would be required to be spent annually. As the revenue of India is some £36,000,000 all told, it is evident that any such undertaking is impossible. Evolution Surgeon-General Harvey holds to be theoretically excellent, but it is impossible in large towns. Some Indian sects, such as the Jains, objected to inoculation because mutton was used in the preparation of the fluid. He advised that Haffkine's fluid should be standardised. A system of death certificates would be a great gain to Indian sanitation.

Colonel Fullerton, Agency Surgeon in Baluchistan, described the measures adopted to prevent the spread of plague in Baluchistan, Persia, and Afghanistan. Ships and railways were watched, and when necessary segregation camps were formed and passengers were detained for ten days. There were no endemic cases of plague in Baluchistan, although three imported cases occurred amongst railway passengers.

Dr. Ferras, who has been in practice in Calcutta since 1853, expressed the opinion that the cases of so-called plague in Calcutta were merely cases of malignant fever; and he remembered seeing similar cases when a student in Calcutta.

Captain Bingley, who had been employed in plague duty in Bombay, recommended municipal camps as a remedy for overcrowding. They had been started too late in Bombay to be of any value, but he had found them very successful elsewhere, and that natives willingly paid 2 rupees a month, quite enough to cover expenses and pay interest on the buildings, etc. He held the grain granaries to be the foci of plague, and that from them the rats carried the infection throughout the town.

Mr. Griesbach, Director of the Geographical Survey of India, gave evidence as to the formation of the soil in the infected areas, which pointed to the trap and crystalline areas being specially adapted to the spread of the disease. Bombay was situated near the centre of the Deccan trap formation. There was abundant evidence that the tenacity with which epidemics clung to localities was influenced by the geological formation.

> Quarantine on the Zanzibar coast, an incident which has caused considerable feeling among commercial circles on the East Coast of Africa, is likely to assume still wider interest. It appears that a British ship left Karachi for Uganda with 1,000 coolies on board on December 15th. The coolies were carefully inspected before they left, and they were enlisted in districts where plague was unknown. During the voyage seven deaths occurred from plague, and on arrival on the coast near Mombassa the British authorities there forbade communication with the shore. The ship then went to Zanzibar to obtain fresh water, but again were forbidden to communicate with the shore, and peremptory orders were issued to return to Karachi. The Foreign Office in London upheld the action of the Uganda and Zanzibar authorities, so there is no help for it but for the ship to return to India.

It is contended that by

> this decision Britain has been the first to break the term of the Venice Convention. In the Convention, Chap. 2, Section VIII, it is laid down that the sick from a ship shall be landed and detained in hospital, and that other persons shall be landed and detained under observation for 10 days, that the ship shall be disinfected, etc. These rules seem to have been set aside, even although no case of plague has occurred on board the coolie ship for eight days.

COURT APPOINTMENTS.

THE *London Gazette* of January 6th announces that the Queen has been pleased to make the following appointments:

Sir Richard Douglas Powell, Bart., M.D., F.R.C.P., Physician Extraordinary, to be one of Her Majesty's Physicians in Ordinary, in the room of the late Sir William Jenner. He is the second and only surviving son of the late Captain Scott Powell, Royal Welsh Fusiliers. Educated at University College, London, he graduated M.B. in 1865 and M.D. in 1866 (with honours) at the University of London. Having been admitted a Member of the Royal College of Physicians in 1867, he was elected a Fellow of that body in 1873. He is Physician to the Middlesex Hospital, and Consulting Physician to the Brompton and Ventnor Hospitals for Consumption. He is author of a work on diseases of the lungs, and gave the Lumleian Lectures at the Royal Colleges of Physicians in 1898 on Diseases and Disorders of the Heart, besides contributing articles to Reynolds's *System of Medicine*, Quain's *Dictionary*, and Clifford Allbutt's *System*, and many papers to the medical societies and to the meetings of the British Medical Association.

James Edward Pollock, M.D., F.R.C.P., to be one of Her Majesty's Physicians Extraordinary, in the room of the late Sir Richard Quain. Although not a member of the well-known legal family, which has given also some distinguished members to our own profession, Dr. Pollock comes of a stock with a strong bent to the law, for his grandfather was a judge of county courts in Ireland, his father was a barrister, and one of his brothers county court judge in Liverpool, the other being Archdeacon of Chester. Dr Pollock, who entered the profession in 1840, graduated M.D. at King's College, Aberdeen, in 1850. He was elected a Fellow of the Royal College of Physicians in 1864, and Pro-President and Senior Censor in 1893. He is Consulting Physician to Brompton Hospital for Consumption, and the author of *Elements of Prognosis in Consumption* (1865); and a *Medical Handbook of Life Assurance.*

Thomas Barlow, M.D., F.R.C.P., Physician in Ordinary to Her Majesty's Household, appointed Physician Extraordinary in the place of Sir R. Douglas Powell. Dr. Barlow was educated at University College, London. He is a distinguished graduate of the London University (M.D. 1874, M.B. (honours) and B.S. (honours) 1873, B.Sc. 1867.) He is a Professor of Clinical Medicine and Physician to University College Hospital; Physician to the Hospital for Sick Children, Great Ormond Street; and is well known for his many valuable contributions to medical literature, especially on subjects connected with diseases of children.

THE SALE OF POISONS.

AT a special meeting of the Pharmaceutical Society of Great Britain on January 11th it was formally resolved that the Society should adopt regulations for the keeping, selling, and dispensing of poisons in accordance with the provisions of Section 1 of the Pharmacy Act, 1868. Draft regulations were then brought up and were adopted after some discussion by 111 votes to 5. The following is the text of the regulations as adopted:

1. That in the keeping of poisons, each bottle, vessel, box, or package containing a poison be labelled with the name of the article, and also with some distinctive mark indicating that it contains poison.
2. Also that in the keeping of poisons each poison be kept on one or other of the following systems—namely:
    - (*a*) In a bottle or vessel tied over, capped, locked, or otherwise secured in a manner different from that in which bottles or vessels containing ordinary articles are secured in the same warehouse, shop, or dispensary; or
    - (*b*) In a bottle or vessel rendered distinguishable by touch from the bottles or vessels in which ordinary articles are kept in the same warehouse, shop, or dispensary; or
    - (*c*) In a bottle, vessel, box, or package kept in a room or cupboard set apart for dangerous articles.
3. That in the dispensing and selling of poisons, all liniments, embrocations, and lotions containing poison be sent out in bottles rendered distinguishable by touch from ordinary medicine bottles, and that there also be affixed to each such bottle (in addition to the name of the article and to any particular instructions for its use) a label giving notice that the contents of the bottle are not to be taken internally.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday the 18th day of January next, at 2 o'clock in the afternoon.

The following Committees will also meet: *Tuesday, January 17th, 1899.*—2.0 P.M., Subcommittee of Parliamentary Bills Committee on Medical Acts Amendment. —2.0 P.M., Subcommittee of Parliamentary Bills Committee on Vaccination.—3.0 P.M., Premises and Library Committee. —4.0 P.M., Subcommittee of Journal and Finance Committee on Election of Assistant Secretary.—4.0 P.M., Subcommittee of Parliamentary Bills Committee on Tuberculosis.—4.30 P.M., Committee on Fees to Poor-law Medical Officers.—5.0 P.M., Parliamentary Bills Committee. *Wednesday, January 18th, 1899.*—10 A.M., Journal and Finance Committee.

FRANCIS FOWKE, *General Secretary.*

January, 1899

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

DUBLIN BRANCH.—The annual meeting of the Dublin Branch will be held in the Royal College of Physicians, Kildare Street, on Monday, February 6th, at 5 P.M. The officers and Council for the ensuing year will be elected by ballot, and any other necessary business transacted. Mr. F. T. Heuston, F.R.C.S., President-elect, will deliver an address on The Position of Poor-law Medical Officers in Ireland. The annual dinner will take place on the same evening in the College Hall at 7.30 P.M.—JAMES CRAIG, M.D., Honorary Secretary, 35, York Street, Dublin.

BORDER COUNTIES BRANCH.—The next meeting will be held in Penrith about the end of January. Members desiring to read papers, etc., will kindly communicate as soon as possible with the Honorary Secretary, W. F. FARQUHARSON, Garlands, Carlisle.

SPECIAL CORRESPONDENCE.

BERLIN.

Death of Professor Gurlt.—Lung Sanatoria in Germany.—A New Medical Journal.—General News.

PROFESSOR ERNST GURLT, the distinguished surgeon, died in Berlin on January 8th, of influenza and inflammation of the lungs. Though already in his 74th year, his intellectual faculties were undimmed by age, and his power of work seemed to be inexhaustible. Up to his last illness—that is, until the Christmas holidays—he lectured, both at the University and at the "Kaiser-Wilhelm-Akademie," and did a great deal of literary and editorial work besides. Gurlt was a Berliner by birth. He accompanied the Prussian troops in all their campaigns from 1848 to 1871, and it is as a military surgeon that his name will go down to posterity. His writings on ambulances and on various branches of military surgery are standard works; he was one of the most active organisers of the German Red Cross societies, and editor of their central organ up to the last. One of the founders of the German Surgical Society, he was its permanent secretary, edited its reports, and supervised and arranged its celebrated inquiry on narcosis. But Gurlt's greatest literary work is *The History of Surgery from the Most Ancient Times to the Renascence*, a life-long labour, which happily he was able to bring to completion just about a year ago.

The third annual meeting of the German Central Committee for the erection of lung sanatoria was held on January 9th, at the house of the Imperial Chancellor, Prince Hohenlohe, the German Empress being present as Lady Patroness. Professors v. Leyden, Gerhardt, B. Fraenkel, General-Surgeon Dr. v. Coler, and other medical notabilities were present, with Prince Hohenlohe, the Cultus Minister (Dr. Bosse), the Duke of Ratibor, the Secretary of State (Count Posadowsky), the Saxon Minister of State (von Metsch), the President of the Imperial Board of Insurance (Gaebel), the Director of the Imperial Board of Health (Koehler), and many other representative men. Prince Hohenlohe opened the proceedings, as Honorary President of the Central Committee, and then resigned the chair to Count Posadowsky. From the report, which was read by the Secretary, Dr. Pannwitz, it appears that thirty-three German societies are at present engaged in the work of establishing lung sanatoria, and that three more will join in it before long. Twenty sanatoria are already in active existence, and others are in course of erection. Unfortunately the number of beds for women is far below that for men, so that new wards for women only are much needed. Special donations for free beds have been received, but more are urgently needed to help those invalids who are either unable to pay even the small fees of the sanatoria or have no assistance from insurance societies or from State insurance. The report states further that a great part of the success already achieved is due to the Imperial Board of Insurance, which has three sanatoria of its own already in activity, and three more in course of erection. Many of the large industrial and trade establishments of Germany have also taken part in the work, parishes and townships are beginning to join it, and assistance has been given, too, by the war ministries and agricultural ministries of the German States. Turning to another branch of the Central Committee's efforts, namely, the care for the families of the sanatoria patients, the report states that this had been the special work of a Ladies' Committee, presided over by the Princess Hohenlohe. This Committee has also taken over a department instituted for the purpose of assisting dismissed patients to find work. In the sanatoria themselves, employment is given to the patients, wherever this is considered advisable. The Central Committee numbers at present 466 members. At the close of 1898 the balance in hand amounted to 250,000 marks (£12,500), 224,500 marks (£11,225) having already been spent in contributions to the erection of sanatoria. After the reading of the report delegates from various German States and Prussian provinces gave accounts of the progress of the cause in these parts. The Duke of Ratibor introduced the subject of the forthcoming International Congress on Tuberculosis, over which he is to preside. Professor von Leyden then spoke more fully of the objects of the Congress and the subjects which are to be discussed. Director Koehler (Imperial Board of Health) and Geheimrath Krieger of Strasburg are to introduce the discussion on the spread of tuberculosis; Professor Robert Koch and Professor L. Fraenkel one on its causes; Professor Gerhardt and General-Army-Surgeon Schjerning one on prophylaxis; Professor v. Ziemssen (München) and Professor Schrötter (Vienna) one on therapeutical questions; and President Gaebel and Geheimrath Dettweiler one on lung sanatoria. The Oberbürgermeister of Munich, Herr von Borscht, spoke on the position of townships and parishes in this sanatoria question, and strongly urged the duty of taking part in this great fight against the national scourge—tuberculosis. At the close of the meeting, the Empress, the Presidents of the Committee, and several of the more distinguished members, remained to lunch with Prince Hohenlohe and his daughter.

Of medical journals there is surely no want in Germany. But Professor Klemperer's new monthly, *The Therapeutics of the Present Day*, starts with such an array of first-rate contributors that it forces attention. Virchow has a brilliant article on General Therapeutics in the first number, v. Leyden on Food in Fevers, Senator on Diseases of the Kidneys, v. Schrötter on Arteriosclerosis, Eulenburg on Occupation-cures for Nervous Diseases, A. Fraenkel on Treatment of Pneumonia, and Binz on the Effects of Alcohol.

The Berlin magistrates have decided to erect a pavilion with a hundred beds in connection with their casual ward, for the accommodation of slight cases of illness amongst the occupants.

At the annual meeting of the Berlin Medical Society, Professor Virchow reported that the Committee, taking its stand on the Society's statutes, which rule that no one is to be received a member who is not a Doctor promotus, have decided not to admit female medical members. The financial report shows a balance of 130,500 marks (£6,525); the number of members has reached 1,130. Virchow was again elected President for the present year; v. Bergmann, Senator, and Abraham Vice-Presidents.

PARIS.

Sanitation in the French Colonies.—Necropsy of the "Shepherd Killer."—Gratuitous Medical Aid in the Sarthe Department.

DR. PICHEVIN expresses the belief that in the French colonies everything does not go on in a thoroughly satisfactory manner. He suggests that the French nation would do well to compare the state of their colonies with those of Great Britain. In order to facilitate this comparative study of colonisation, he recommends the student who undertakes the task to visit Guadaloupe, Martinique, and Trinidad. The latter is an English colony. In all three islands the climate is the same; the manners and customs are also similar. Dr. Pichevin mentions the commercial activity coexistent with electric tramways, electric lighting, and telephonic communication of Trinidad, which in these respects stands in strong contrast with the other islands. He then turns his attention to the Poor-law budgets of these colonies. At the Port of Spain, the principal town in Trinidad, there is a splendid hospital with a series of isolated pavilions for lying-in women, and for patients suffering from diphtheria, diarrhœa, and dysentery. All the members of the medical staff have good salaries. Dr. Pichevin says he hardly dares describe the state of the Public Assistance in the Martinique island; it is simply deplorable. The future has in it a promise of better things. Owing to Dr. Bouvier's liberality and the administrative ability of the mayor, a new hospital is being built. It will be provided with all the latest improvements in sanitary science. The existing hospital at the town of Saint Pierre is admitted by the bishop to be a disgrace to Martinique. The patients are placed promiscuously in the wards, which are horribly dirty. The sanitary arrangements are indescribable.

At the necropsy of Vacher, the "shepherd killer," who was executed recently, the cerebral convolutions did not present any abnormal conditions. It was concluded that the moral responsibility of the murderer was of the normal degree. Several casts of the brain have been sent to anthropological schools, and a photograph to Professor Lombroso.

Dr. Salomon, practising at Saigne l'Evéque, in the Sarthe department, has published an interesting little book entitled *La Loi sur l'Assistance Médicale Gratuite*. In the Sarthe department there are no rich people. Previous to the enactment of the new medical law the salary for treating the poor was £4, with the title of "Médecin Cantonal." Medical men, says Dr. Salomon, are not angels, and at last are irritated by being frequently called for trivial ailments. The indigent patients believe the medical officer is well paid for attending them, and are therefore exacting as well as rude. Thus there springs up a condition of warfare between the patients and the doctor. The ideal system of gratuitous medical help Dr. Salomon considers would be that the patient should choose his own doctor and pay him by means of tickets (*bons*), the fee being regulated by the minimum of the tariff accepted in the district. The law of 1893 decrees that 6½d. per pauper shall be paid to the medical officer of the gratuitous medical service. Dr. Salomon asserts that in the Sarthe department as well as in many others gratis medical help exists only in theory: and he urges that the law should be repealed or enforced.

ROME.

The Treatment of Phrenasthenic Children in Italy.—Foreign Medical Practitioners in Italy.—The Italian Society "Pro Infantia."—The Italian Society of the Medical Press.—The Italian Society for the Study of Malaria.

IN an interesting article on the Treatment of Phrenasthenic Children in Italy, Dr. Garofalo of Rome refers to a work *On the First Institution for Phrenasthenics founded in Italy in 1889*, by Professor A. Gonnelli-Cioni. According to the census of 1881 (the last taken in Italy, owing to financial reasons), the number of idiots and cretins was 19,671, a figure which exceeds that of the census of ten years before by 2,358. In other nations, such as Switzerland for example, idiocy is diminishing with the increase in education. It is well known that the idiots and cretins are very differently distributed in the various regions of Italy, and the places where cretinism is most endemic are the Alpine chains of Piedmont and of Lombardy. The following are, according to G. Gazzaniga, the proportionate figures of the phrenasthenics for 10,000 inhabitants in the different regions of Italy: Piedmont 15.3, Lombardy 14.7, Liguria 14.3, Marchi 9.9, Venice 9.7, Tuscany 9.3, Emilia 8.8, Umbria 8.0, Naples 7.2, Rome 6.4. In this respect Italy has a lower percentage of idiots than all other countries, excepting the United States, Switzerland, and Belgium. Garofalo then gives a brief account of the institutions existing in England and in France. Italy up to ten years ago shared with Spain, Greece, and Turkey the sad privilege of not having a single special institution for the treatment of idiocy. To Gonnelli-Cioni is due the first experiment of this kind in Italy. He, formerly a teacher in the public schools and in special schools for the deaf and dumb, began in 1887 to study the mode of educating a few idiots admitted by mistake among his pupils, totally ignorant of what had been done and written before him on the subject. In 1889, with a capital of 50 francs and a single pupil, he founded at Chiavari the first Italian Institution for Phrenasthenics. He was considered a visionary, but his faith conquered, and a short time after he was able to transfer his institution to Vercurago, in Bergamasco, near Lake Lecco, in a most charming situation; and in a few years he was able to show a philanthropic and educational work of the greatest interest. The number of his pupils is not large, but the experiment of Vercurago eloquently demonstrates what good might be done by several of these institutions scattered through Italy, and destined to receive the greater part of the 20,000 phrenasthenics that it contains. The results of the treatment are admirable. Gonnelli-Cioni certainly does not make a man of genius of an idiot or of an imbecile, but he makes him an individual who knows the more necessary affairs of life, the most common moral ideas, who knows how to avoid bad or injurious actions to himself and others, who no longer will be a burden on his family or a danger to society. The method is essentially practical. It is divided into three parts: (1) Physical education. (2) Intellectual and moral education. (3) Technical education. The physical education, directed by a patient and experienced master, is applied in different ways to the individual pupils, and it is intended to correct impulsive and incoordinated movements, to stimulate torpor of the movements, to inculcate the ideas of order and cleanliness; this obtained, it is directed to improve the senses, exercising the hearing with various sounds, the sight with manifold objects, the taste with foods, the touch with heat, cold, etc. The intellectual and moral education has religious teaching as its basis. The technical education, after a sufficient physical development, tends to direct the idiots towards an occupation adapted to their natural dispositions, then to awaken in them the love of work, and, finally, to teach them a trade according to their aptitudes and their social position.

Dr. Santini, the champion in the Italian Chamber of Deputies of the crusade against foreign practitioners in Italy, has again brought up the question in the Chamber. He appealed to the Government to introduce a Bill to prevent illegal practice by foreign medical men in Italy, of whom he still maintains there are 1,500. General Pelloux, the Minister of the Interior, in reply, said that the law permits foreign doctors to practise their profession among foreigners in Italy when they are provided with proper diplomas, and that the existing law gives the Government the means of preventing illegal practice. Statistics showed that only 108 foreign practitioners practised in Italy. Now, for such a small number the Minister did not think such a change useful or opportune, especially when they remembered that the majority of the very large number of foreigners who come to Italy prefer to be treated by their fellow-countrymen. At most the Government would interest itself in a diplomatic way to obtain reciprocity in favour of the Italian medical men who practise their profession in other countries.

The Roman Committee of the National Society *Pro Infantia*, encouraged by the success of the six lectures on Infant Hygiene, held on its initiative in Rome in April, May, and June, 1898, and specially directed to instruct female teachers, has arranged for a new series of twelve lectures with the same scope. The lectures will be held at the Institute of Hygiene during the first six months of 1899. The following are the subjects of the lectures: (1) Introductory Remarks, by Professor Celli; The Factors of Physical Development, by Dr. Pagliani. (2) Nutrition, by Professor Concetti. (3) Dress, by Professor Marzoni. (4) Muscular exercise, by Professor T. Gualdi and Dr. Villa. (5) Gymnastics, Games, by Dr. Ballerini. (6) Manual Labour, by Dr. Baldini. (7) Hygiene of the Voice, by Professor Geronzi. (8) Water, by Dr. Prochet. (9) Summer Colonies, by Dr. Mariotti. (10) Educators and Inquirers, by Dr. Minossi. (11) Hygiene of the Nervous System in Infants, by Dr. Moglie. (12) Perfectibility of Infancy, by Dr. A. Gonfalo.

A Committee has been formed for the purpose of founding a Society of the Italian Medical Press, under the presidency of Dr. Vincenti, the editor of the *Corriere Sanitario* of Milan. The promoting Committee includes some of the most distinguished editors in Italy, but, on the other hand, many of the latter are conspicuous by their absence—for example, Baccelli and Durante of Rome, Bizzozero and Lombroso of Turin, De Renzi and Rummo of Naples, etc.

The Italian Society for the Study of Malaria held its first general meeting at the Institute of Hygiene, Rome, on December 3rd, 1898. Signor Fortunato, the President of the Society, having read the financial statement, proposed that three classes of members should be constituted: Founders, who pay 500 francs; ordinary members, who pay 3 francs per month; contributors, 6 francs a year. Professor Celli then read a report, which showed what excellent work had already been done by the medical members of the Society. Dr. Blessich, representing the Mediterranean Society, proposed the formation of provincial committees for the purpose of assisting the central Society. Professor Grassi next proposed, and the meeting accepted, that a conference should be held for the purpose of popularising the results up to those obtained by the scientific members of the Society.

MELBOURNE.

The Prevalence and Nature of "Tick Fever."—Feeble-minded Children.—Malignant Growths in the Lower Animals.—The Consumption of Tea and Coffee.

TICK fever is still agitating the minds of the agricultural classes of the whole of Australia. The matter is of such vital importance to pastoralists and herd owners that both the veterinary and the medical professions are earnestly implored to assist in devising some means towards neutralising the effects of the pest or doing something towards stamping it out. A quarantine line has been defined in Queensland beyond which cattle from the northern plains, to which the tick is at present confined, are not permitted to pass. About three years ago the tick pest was first discovered in Queensland in the neighbourhood of Rockhampton. Although at that time it was believed that it could not live in subtropical climates, it began to spread southward, and the Government adopted at once certain lines or zones from north of which no exportation of cattle was permitted. As the disease spread this line had to be removed southward, and now it has reached as far south as the Brisbane coast. Over 6,000,000 head of cattle are now quarantined in Queensland, and the mortality is very great. Other pests, like locusts and grasshoppers, have frequently enough after remaining quiescent perhaps even for years suddenly been seized with the migratory impulse; and have then traversed the whole continent of Australia. The inoculation of healthy beasts with the blood derived from animals recovered of the tick fever has certainly proved successful in warding off severe attacks of the fever in bullocks that have eventually contracted the disease through having crossed into infected tracts. But there is another factor to be considered, and that is, Does inoculation do harm? It would seem from recent experiments that it does harm to bullocks susceptible to the disease. The hæmocytometer reveals that anæmia in many cases is produced, and this anæmia does not tend readily to recovery. The hæmoglobin is diminished. The microparasites, pyrosoma bigeminum, may live for years in the blood of recovered cattle. The capillaries of the organs are rich in germs, but they are very scanty in the blood of the general circulation. Since the microparasites persist for long periods in the blood of the capillaries of the principal organs, it is obvious enough that in some cases a chronic anæmia may result from their presence. They invade the red blood cells, and bring about their destruction. They multiply in the blood, producing crescent-shaped bodies stuffed with spores. The capsule containing the spores burst, liberating the contents, and eventually the spores develop into adult form. The tick is the intermediary host for the development of this parasite, and in some way or another the parasite gets out of the body of the tick into the blood of the cattle when infected with the ixodes.

Dr. J. W. Y. Fishbourne, who some years ago was officially connected with our lunatic asylums, delivered a public lecture on the Education of Feebleminded Children. In the course of his remarks he stated that in proportion to its population Victoria had the largest number of lunatics in the civilised world. The number of lunatics confined on December 31st, 1897, was 4,346, or one for every 271 of the population. He thought that far more may be done towards the development of the faculties of the mentally weak in youth than was once thought to be possible. He thought that 15 per cent. only needed permanent protection, and were unfit to be taught. Special provision was needed for the education in a systematic manner of the rest. From the economic point of view it was shown that weak-minded children under the present general system of education became a burden to the taxpayer. Our education department was unable to account for some 14,500 children, to whom the compulsory provisions of the Act are not being applied. Some of the details of our system, he thought, were unfortunate, as it appears as if part of the teacher's salary depended upon the results of his tuition. The Education Department seems like other Departments of the State, to exist principally for the benefit of the Civil servant. The child is a secondary individual altogether. The teachers, the inspectors, etc., are the department. It was the same with the lunacy department. It existed for the sake of the attendants. Official visitors were appointed by the Government, not to look after the welfare of patients, but to look after the welfare of the attendants.

There has been much discussion of late as to whether malignant growths exist in the lower animals. Quite recently cases of sarcoma, mostly of the melanotic type, have been discovered in horses, sheep, and dogs. Epithelioma has been found in both dogs and cattle. Rodent ulcer is frequently observed in birds, and of the non-malignant forms lymphadenoma is occasionally encountered and fibromata commonly.

Australians still partake heavily of tea and coffee. During 1897 the colonies imported 35,149,205 lbs. weight of tea valued at £1,067,291. The coffee import was for the same period 2,573,935 lbs. of the raw product, and 228,789 lbs. of ground coffee valued at £107,125 and £12 050 respectively. The net amount of tea imported and consumed was about 30,000,000 lbs. Our average is about 7 lbs. a head. West Australia averages 9½ lbs. a head, Victoria about 8¾ lbs., South Australia 8 lbs., New South Wales 7½ lbs., Queensland 6¾ lbs., New Zealand 6½ lbs., and Tasmania 6 lbs. As coffee drinkers we stand on a lower scale, about ½ lb. a head being the average.

LIVERPOOL.

A Sanatorium for Consumption near Liverpool.

THE movement in favour of providing sanatoria for the open air treatment of tuberculosis in the vicinity of Liverpool, a movement which has been actively promoted by the Medical Institution, has already enlisted the sympathies of the supporters of the medical charities, the members of the medical profession, and the guardians of the poor. The Committee of the Hospital for Consumption and Diseases of the Chest some time ago acquired a piece of land at West Kirby with a view to erecting a hospital there, and now they have been offered a sum of money sufficient to erect a sanatorium with thirty-six beds on this site. The donors are Lady Willox and Mr. W. P. Hartley, who each give £7,500, in addition to sums they have already promised to the building fund of the hospital. They recommend that the advice of Sir William Broadbent and Sir Douglas Galton should be taken on the proposed plan, and that the medical profession of Liverpool through their leaders should be invited to consult with these gentlemen, and to co-operate actively in making the whole institution efficient and useful. They also point out that it will be necessary to reconstruct the hospital in Mount Pleasant on a moderate scale.

There can be no doubt that the generous offer of Lady Willox and Mr. Hartley has in a great measure solved the most difficult part of the problem with which the advocates of the open-air treatment have to deal. The very poor will doubtless be amply provided for in sanatoria erected by the Poor-law guardians, and the well-to-do are able to take care of themselves. There must always, however, be a proportion of sufferers, though probably they will not be numerous, who are quite unable to afford the cost of a prolonged sojourn in a health resort, and are yet far removed from the class who receive help at the Poor-law or indeed any other hospitals. For these the sanatorium to be erected at West Kirby will be an incalculable boon. It is earnestly to be hoped that the Committee will arrange their institution in such a way that no consumptive cases will receive prolonged treatment in their institution in Mount Pleasant. It will of course be necessary to retain an out-patient department in the city, and a few beds may be desirable for the temporary accommodation of cases which are the subject of some intercurrent acute affection such as hæmoptysis or pneumonia, and are therefore unfit for immediate removal to the country. If, however, the Committee desire to do the best which can be done for consumptive patients who are amenable to curative measures, they will lay out their available funds so as to provide as many beds as possible in the country hospital, and will keep their town establishment within the smallest possible limits.

CORRESPONDENCE.

REVERSION.

SIR,—I had the pleasure last July of showing some of the members of the British Medical Association several instances of reversion. One of the most striking exhibits seen at Penycuik was a litter of young rabbits. Of the three rabbits one is now the image of the mother (a smooth-coated rabbit, white, with the exception of the muzzle, ears, legs, and tail, which are of a light grey colour); one resembles the grandmother, a white angora; while the third is a himalaya with a black muzzle, black ears, and dark legs and tail like the great grandmother. The sire of all three is smooth coated and as white as snow. I have already heard of similar instances of reversion in the human family and I am now in search of instances of reversion to comparatively remote ancestors.

It is supposed that the inhabitants of the British Islands have mainly descended from (1) a small, dark, long-headed (dolichocephalic) race with high cheek bones; (2) a tall round-headed (brachycephalic) race with red hair and long arms; and (3) a tall, long-headed race with fair hair and blue eyes (dolichocephalic blondes). I know of a family which includes two of the three types, but there are doubtless families in which all the three original races are more or less faithfully reproduced. If any of your readers are able to give me instances of two, or of all three, of the above types occurring in one family I shall be greatly obliged. If a few words are added as to the colour of the hair, the height, and the shape of the head of the parents and the other members of the family, the value of the information will be considerably increased.—I am, etc.,

The University, Edinburgh, Jan. 10th. **J. C. EWART.**

THE NEW MIDWIVES BILL.

SIR,—There is great improvement in the Bill of 1899 when compared with its predecessors, and if there is to be a Bill at all the promoters are at length proceeding in the right direction. For this the rank and file of the profession have to thank themselves, as I do not hesitate to affirm that the General Medical Council would never have adopted its present attitude towards midwife legislation but for outside persistent and determined pressure. The moral is obvious. Our moral should be that of Goethe: "Use well the moment, and with seeing eyes, peruse the thing that's next thee and be wise." Our gratitude is due to our direct representatives, and especially so to Messrs. Horsley and Brown, whose dulcet tones have enticed Dr. Glover after them.

But having said this, I cannot endorse Dr. Garrett Anderson's almost unqualified approval of the new Bill. The text of the Bill gives no guarantee of a strict personal supervision over the licensed midwives. It is only to be a "general" supervision by the medical officer of health or "some other medical practitioner or practitioners." How easy it would be for the midwife to control her favourite doctor, who might prefer to fulfil the double duty of confidant and consultant to the neglect of his quasi-legal functions under Clause 9. This method of supervision will never do. There must be a local supervising committee of lay and medical men and women who will guarantee the payment of medical fees, and, above all, see that the Act is worked without fear or favour, and without prejudice to any doctor resident in the district. This done, I agree with Mrs. Garrett Anderson, to whom I have already done some little service in her able opposition to the Bill of 1898. It would be invidious and, indeed, intolerable to put on the shoulders of one medical man the supervising duties enumerated in the Bill of last year and this.

Again, as the Bill is to cover the practice of both midwives by "examination" and by "experience" only, the Gamp with a "character" would be as uncontrolled as she is at present, and I see nothing in the Bill to prevent these women from medically attending both the mothers and children during the lying-in period, and, if necessary, signing "death certificates." Clause 3, Subsection 4 is no prohibitive, not more than the Medical Acts prohibit quacks and other non-registered persons from granting certificates of death, which the registrar may use or not at his discretion. "Supervision and control" are the very essence of any Midwives Bill, and both of these were secured by my own and Sir Blundell Maple's Bill of 1898. No "rules"—no matter how stringent on paper—can control the midwife in the lying-in room unless they secure the presence of a registered practitioner either at or immediately after a confinement.—I am, etc.,

East Sheen, Jan. 8th. ALEX. MCCOOK WEIR.

SIR,—It is more than probable that the great majority of practitioners will concur with Dr. E. Garrett Anderson in the opinion that the Bill of this year is a very different measure to that of last year, but the objection to the latter, I take it, was more than a mere dislike to "a scheme which threatened to create a class of very inferior practitioners who would have been in effect quite independent in their work" for while, if carried, it would have done so, it left the old evils untouched except in name. The practice of midwifery would have been just as open to any woman who imagined herself qualified to undertake the work as it has been in the past; in other words, midwifery would under its empty pretentiousness have been practised by three classes—the medical practitioner, the would-be created new practitioner, and the unregistered practising midwife or common howdie, the first class under the control of the General Medical Council, the second under some control of a Midwives Board, and the third under the control of nobody. Last year's measure was distinctly retrogressive, and naturally the profession strongly resented the idea of a new-fangled order being wedged in between them and the old-fashioned class which it made no attempt to abolish.

To have every practising midwife, as provided for in this year's measure, properly under control and enrolled is a conservating principle which no doubt the profession will ardently support, and so help to free one of the branches of professional work from the exploitations of unpenalised quackery.—I am, etc.,

Leeds, Jan 9th. J. H. WIGHAM.

THE INTERPRETATION OF THE MEDICAL ACTS.

SIR,—Dr. Holman's suggestion seems to me an excellent one, and I hope when the Parliamentary Bills Committee meets that he and Mr. Victor Horsley will be able to agree on one (or may I suggest two?) Q.C.'s to whom this important question of the interpretation of the Medical Acts may be referred for their opinion and advice.

In corroboration of the first sentence of Dr. Holman's letter, I may mention that some twenty years ago I was associated with the late Mr. R. H. S. Carpenter, whom the senior members of our Association will remember as taking an active part at that time in the attempted suppression of quacks, and I had then many opportunities of discussing this question with him, as also with Dr. Lush, M.P., who introduced a Medical Act Amendment Bill in the House of Commons, and also with Mr. W. H. Michael, Q.C., who had been in medical practice before he became a barrister; and these three gentlemen, with the best desire possible to find power given in the Act of 1858 to suppress illegal practice, failed to do so, and Dr. Lush even went so far as to say that not only was there no such power given by the Act of 1858, but that the House of Commons would never consent to give such power, because it contained so many members who themselves consulted bonesetters and quacks. Now I am very far from saying that we may not all have been mistaken, or that the Act of 1886 may not have altered matters; but I do say that Mr. Victor Horsley's speeches and letters do not seem at all convincing, and least of all his latest contribution, in which the question whether the Medical Acts are efficient or not is nearly lost sight of in the ardour of his attack on you and your contributor.

What we all want is an authoritative opinion on a stated case, in which both views of the law should be laid before counsel, and this I hope the Parliamentary Bills Committee will obtain for us.—I am, etc.,

Dulwich, Jan. 9th. H. NELSON HARDY.

SIR,—Although I agree with Mr. Horsley's interpretation of the Medical Acts, yet I think it would be a great pity to defer the question of an amending Bill until, as Dr. Holman suggests, the High Courts have given an authoritative decision. The profession want it made perfectly plain that to practise medicine, surgery, or midwifery for gain is illegal. Moreover, it is most desirable that penalties for second or third offences should be much heavier than they are for the first offence. On this important issue let us be united, and there will be little chance of our failing to convince the Government of the real necessity of an amendment of the existing law.—I am, etc.,

Cardiff, Jan. 9th. T. GARRETT HORDER.

SYPHILIS IN THE ARMY.

SIR,—In the BRITISH MEDICAL JOURNAL of December 31st, 1898, "Inquirer" specially addresses me on two interrogative sentences of my letter (December 3rd, 1898) importing a belief in the attenuating power of the Contagious Diseases Act on venereal disease, which I infer he receives in a spirit of criticism verging on scepticism. To his three queries I reply, as briefly as possible, as follows:

1. The malignant character of the venereal diseases at home which the first Contagious Diseases Act (1864 and its extension in 1866) demonstrated and eliminated. The prevalence and virulence of these in certain seaports, etc., and their ravages in the army and navy initiated this sanitary measure. The character of the demonstrated disease is referred to in Parkes's *Hygiene*, 6th ed., p. 493, and details are to be found in this JOURNAL, especially in 1867-68. The report of the 1870 Commission is very clear on the point of elimination, and corroboration is to be found in that of 1882. The reflex of this amelioration upon the army is officially recorded in 1869: "The protection afforded is demonstrated in respect to those forms of disease which infect the constitution;" and the reduction in the secondary disease is in the 1882 Committee report placed at 29 per cent.

2. Further reports substantiating attenuation of the syphilitic virus. In respect to the women, I would refer to the paper on the Lock Hospital by Mr. Lane,[1] in which the average stay in hospital for all forms of disease among the ordinary and Government protected patients in marked favour of the latter, with corresponding mildness of type in both primary and secondary disease, is brought forward; and also to his important letter in the BRITISH MEDICAL JOURNAL of December 12th, 1874, in respect to the marked modification in syphilis in both stages in quantity and quality. The repeated conclusions of the BRITISH MEDICAL JOURNAL to the same effect is especially noteworthy, particularly that of November 7th, 1868, to the effect "that both as regards the women and men, not only the quantity of disease has been diminished, but its quality has been modified for the better in the most marked manner." And in respect to the army, premising that as criteria of virulence I include not merely "the average stay in hospital of the cases," but the prevalence of both forms and the ratios of deaths and invaliding, I would refer "Inquirer" beyond the report of 1866 and Dr. Balfour's reply in Committee, which he admits have no bearing on "virulence," to those from 1870 to 1884, for example, dealing with a lengthened experience of the Act. There, in respect to the protected and unprotected stations, it is apparent that, taking 14 stations under the Act, and a similar number not under, and commencing with the years preceding legislation with a ratio from syphilis of 130 per 1,000 of

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[1] BRITISH MEDICAL JOURNAL, February 15th, 1868.

strength for the first and 116 for the last, 16 years of the Act reduced the former to a ratio of 50, while the unprotected stations stood at 118; while, following the suppression of the Act, these hitherto improved stations reverted in two years to slightly beyond the original intensity—138 ratio. And the influence on the secondary disease is shown in the period from 1870-80 as an example by an annual average ratio of 22.5 admissions per 1,000 in the protected as compared with 36 in the unprotected. If to these figures we append the statement of Dr. Aitken[2] on the greater severity of the disease in the unprotected, and "the very mild forms" of it in the protected stations, and his further statement of the reduction of the annual death-rate from syphilis in the civil population of the latter, I venture to assert that we have conclusive evidence of what this special sanitation wrought in attenuating the virus in our home community despite the defects of administration and shortcomings of the measure. Nor do I think it would be difficult to obtain corroborative data from the foreign segment. Suffice it to mention now the details furnished to the Viceregal Council by the Commander-in-Chief in India, showing an advance of 137 per cent. in the primary disease and 188 in the secondary, an increased stay in hospital from 26 to 31½ days, and an invaliding augmented fourfold; and to contrast the figures from this country in 1880 and 1895—in the first, from secondary disease, 25.0 admissions, 0.06 deaths, and 1.62 invalids per 1,000 of strength, in the latter 97.7, 23, and 6.36 respectively. The Memorandum of the Army Sanitary Committee of March 9th, 1897, acknowledges the effects of the Act in India in "checking not only its increase, but the severity of the disease itself."

3. I am further asked as "to what factors I attribute the remarkable decrease in venereal diseases in the home army since 1886 in the absence of all sanitary control." Now, without acknowledging this statement as an accurate version of the army facts, and limiting the question to syphilis, the statistics do suggest an apparent decrease in the primary form commencing that year, which coincides with a change of nomenclature. No official explanation is forthcoming, and hence any opinion must be based on conjecture, and, besides, my personal view is unimportant; but what is important to the present topic is this: That, whether the primary infecting sore rests in statistics elsewhere than it previously did or was not treated in hospital, the fact of its existence is shown in the secondary ratios, which, since the suppression of the Acts in 1883, have risen with fluctuations from 28.3 admissions, no deaths, 63 invalids per 1,000 of strength to 32.3, 0.05, and 1.30 respectively in 1896—an average advance of 25 per cent. of admissions during the period with a maximum of 50 per cent. in 1887. These figures support the inference that the civil source of the army disease at home, as in most foreign stations, has been intensified since the sanitary and therapeutical environment which held it in check has been removed.

That variations in the virulence of syphilis do follow the presence or absence of personal and communal hygiene, the resisting power of the human soil at the period of implantation of virus, and the therapeutics adopted are, I conceive, recognised; but those referred to by "Inquirer"—"like other zymotic diseases"—seem to require demonstration, and will he detail "the many causes that are at work in producing them"?—I am, etc.,

Lee, S.E., Jan. 5th.
FRANCIS H. WELCH, F.R.C.S.,
Surgeon-Colonel (Retired) M.S.

SIR,—It is satisfactory to note that the subject of mercurial inunctions and intramuscular injections is coming so much to the front. I think it is becoming more and more apparent that when symptoms of any importance are present the internal administration of mercury is an inefficient method of treatment.

We must face the fact that frequently patients are either unwilling or unable from force of circumstances to carry out the principles of a lengthened course of treatment. And so it comes about that to a great extent whether we believe in the theory or not we are forced to adopt the practice of the "symptomatic treatment" of the disease. That is, we often have the opportunity of treating the case only when the patient presents symptoms more or less marked.

Under such circumstances, to make the best of the short time that the patient may be willing or able to place himself in our hands, it is essential to adopt an energetic course of treatment, either mercurial inunctions or intramuscular injections of the insoluble salts of mercury. The technique of the former is of course established.

With regard to the intramuscular injections, I can testify to the very successful results obtained in Finger's clinic with the salicylate of mercury. His formula is:

℞ Hydrarg. salicylat. ... 5.0
Paraffin. liq. 50.0
Sig. One Pravaz syringeful in the week.

I am heterodox enough to believe that a patient thus vigorously treated, even though only for a short period and only when symptoms arise, is in as good a position against the disease as one treated for a lengthened period by the internal method.—I am, etc.,

Perth, Jan. 9th. J. MACLAGAN REID, M.D.Edin.

THE CONSCIENCE CLAUSE.

SIR,—Whilst agreeing *in toto* with your timely and forcible leader as regards the moral it indicates, yet do I take exception to certain statements therein contained. I object to the statement that it is petty sessional doings which have made Section II of the Act—the conscience clause—a laughing-stock in so many parts of the country. The reason why it is not a laughing-stock in every part of the country is either because of the good sense or correct views of the inhabitants or because the antivaccinationists have neglected to disseminate their pernicious literature and to enforce their dangerous propaganda amongst these fortunate sections. The magistrates can only administer the law as it is, be the same good or bad, and always act under the very best legal advice obtainable. The views of individual magistrates do not influence the decisions, and cannot influence them in such a case as this.

The law has provided that a parent who has a conscientious objection to vaccination has a legal right to a certificate of exemption, and the magistrates have no power whatever to refuse it, nor even to postpone it. The memorial presented by certain Branches of the Association to certain sessions, urging the justices to postpone the granting of certificates of exemption for six months shows ignorance of magisterial procedure and powers.

We cannot by our whim or caprice, or as a matter of individual opinion, set ourselves above the law and postpone the granting of its relief to those who legally and properly apply for the same. If we attempted to do so, a writ of mandamus would soon bring us to our senses. It is mean, petty, and unjust to attempt to put on the magistrates the terrible consequences of feeble reactionary legislation.—I am, etc.,

Bispham and Blackpool, Jan. 7th. WM. HARDMAN, M.B., J.P.

CONSULTANTS FOR MEDICAL AID ASSOCIATIONS.

SIR,—The letter of Dr. Leslie Phillips under the above heading in the BRITISH MEDICAL JOURNAL of the 24th ult. is a very important one as affecting the position, not only of the consultant, but also of the general practitioner. Dr. Leslie Phillips states that as far as the Birmingham scheme is concerned it is an attempt destined to failure, and that no respectable practitioner will be found to accept service. This may or may not be a correct forecast; at the same time, however, I should be glad if you would allow me space for a few details as to the medical department of an Association in an important centre in the North of England, and which is already well established. The social position of the members of the Association in question can be gleaned from the following facts. A number are in receipt of incomes of £1,000 a year and upwards. Some, I am told, live in houses rented at £75 to £100 per annum, whilst others reside in neighbouring counties. A little time ago it was suggested that no one who paid income-tax should be eligible for the medical benefits of the Association. The idea, however, was scouted by the directors of the Association, as it would have struck at the very root of the medical department, which is the most important one; in fact, without it the Association would probably have a very feeble existence. At present its reserve fund is over £30,000, and of course it is managed entirely by laymen. It has secured the services of a large number of consultants. The fee for consultation was recently 5s., now I believe it is 10s. The surgeons-in-ordinary to the Association are paid at the rate of 4s. a member per annum; and, lastly, canvassers are employed, who are paid partly by commission.

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[2] *Principles and Practice of Medicine*, 7th edition, vol. i, p. 946.

It has always appeared to me most unjust and illogical that a body of men, associated with a medical aid society, should be allowed to reap the benefits of advertising and canvassing, whilst the same abuse practised by a private individual would be condemned as unprofessional. Further, I would here call attention to the fact that those consultants who place their services at the disposal of the Association are giving recognition to a system of canvassing and advertising which is very unfair not only to their brother consultants, but also to the general practitioner.

I trust that the resolution, quoted by Dr. Leslie Phillips as having been passed by the Ethical Section of the British Medical Association, may be realised ere long. It would, indeed, cause a revolution in all ranks of the profession if enforced at the present time. For when you have Fellows of the Royal College of Physicians and their colleagues acting in direct antagonism to the spirit of that resolution, by holding such invidious positions, is it any wonder that men, less well off and striving hard to make a living, should accept similar or even meaner appointments?

The outlook, however, is more hopeful. Already medical men are showing a greater confidence in the future, and with it a stronger spirit of independence, and it is to be hoped that they will soon assert themselves, and no longer stoop to a system of prostituting their own services or conniving at the exploitation of others.—I am, etc.,

Levenshulme, Jan. 9th. A. W. Senior.

SECONDARY EDUCATION AND THE PRELIMINARY EXAMINATIONS.

Sir,—Will you allow me to call your attention to a serious error in a leading article in the British Medical Journal of January 7th, page 33? It is there stated that "of 29 candidates in the Army, Navy, or Indian Medical Services whose mode of entrance could be traced, and of whose general education complaint was made, no fewer than 14 had passed at the College of Preceptors, the others being distributed over nine different recognised examinations."

The absolute inaccuracy of this statement (the number should have been 2 instead of 14), which is quoted from the first section of the Report of the Education Committee of the General Medical Council (November, 1898), has been pointed out in a letter of mine which was published in the Journal of December 17th, 1898, and has been admitted by the Registrar of the General Medical Council in a letter which appeared in the Journal of December 24th, 1898. In another letter of mine which appeared in the Journal of December 31st, 1898, it was clearly shown that the further statistics given by the Registrar were also inaccurate, and that the percentage of complaints against candidates for *all* medical examinations, who had entered through the College of Preceptors' examination, was not above the average of the whole. To this second letter I have seen no answer, nor have I seen—what I think a delicate sense of the ethics of controversy might have prompted—any expression of regret for having been inadvertently betrayed, by the use of incorrect statistics, into misstatements and fallacious arguments injurious to others.

May I take this opportunity of saying that there appear to me to be other questionable statements and arguments both in the report and in the speech by which it was introduced? These will no doubt be considered by the Council of the College at an early date. It is to be regretted that the attention of the General Medical Council was diverted from the object which both they and the College of Preceptors consider of paramount importance—the raising of the standard of preliminary medical education—by an attempt to discriminate between examinations which ought to have stood or fallen together, as all three are distinctly intended for lads under 16, and practically present no difference of standard. Nor does it seem less unfortunate that the burden of drafting the report fell upon Dr. MacAlister, a member of the syndicate for the Cambridge Local Examinations, who was thus placed, as far as part of his work was concerned, in the difficult position of combining the functions of an advocate and a judge.—I am, etc.,

H. W. Eve,
Dean of the College of Preceptors.
College of Preceptors, Bloomsbury Square, W.C.,
Jan. 10th.

TEMPERATURE ON THE RIVIERA.

Sir,—I should like to call attention to one item with regard to the suitability of the Riviera as a winter residence for patients requiring a warm and fairly equable temperature.

I find that the thermometer in my waiting-room, which faces south, has only on one occasion this winter fallen, night or day, as low as 56° F. No fire has been lighted in the room, and there is no neighbouring source of heat. Several south-facing hotel rooms have even a better record.

I don't know whether anything comparable to this is possible anywhere in England, where the house walls are always much thinner, and sun to warm them less intense and frequent.

As patients are always indoors at night, a low temperature outside, which sometimes occurs, does not affect them, since they are shielded from it by thick sun-warmed stone walls.

Though the average daily temperatures at Penzance and Mentone do not differ, till the late winter, by many degrees, I believe the temperature of a south room, left unheated at any English health resort, would, on several nights this winter, have fallen far below the minimum of 56° F. I have recorded here.

I may say, in addition, that English visitors this winter are better off in France than heretofore, as our political attitude has made us more respected.—I am, etc.,

Mentone, Jan. 10th. D. W. Samways.

A CENTRAL FUND FOR THE SUPERANNUATION OF POOR-LAW MEDICAL OFFICERS.

Sir,—As in your article in the British Medical Journal of December 24th, 1898, on the payment of superannuation of Poor-law medical officers, you invite Poor-law medical officers to express their opinions on the subject, will you allow me as one of long standing to state that I heartily concur in the views you take, and think the present state of affairs is most unsatisfactory, and that the establishment of a central fund is urgently required.—I am, etc.,

F. W. Fowke,
Byfield, R.S.O., Jan. 6th. Medical Officer, Daventry Union.

THE ROYAL ARMY MEDICAL CORPS.

Sir,—With reference to the proposal put forward in Surgeon-General Hamilton's letter, which appeared in the British Medical Journal of November 26th, 1898, p. 1655, that the age at entrance for the R.A.M.C. should be altered from "21 to 28" to "22 to 25," I should like to make a few remarks. The effect of such a change in the regulations would be to entirely exclude from the competition candidates who hold a degree in Arts or Science, and to almost entirely exclude those who had held resident appointments as house-surgeons or physicians after qualifying. As regards the first class mentioned, they can hardly qualify before reaching the age of 25. I do not presume Surgeon-General Hamilton approves of schoolboys of 15 or 16 entering on university studies. If a student begins his medical education at 18, which the leaders of the profession think soon enough, he cannot now qualify till he is 23 or 24, and if he is successful in obtaining a resident appointment immediately after qualifying, he will be 24 or 25 before he can turn his attention to the examination for the services.

Perhaps such candidates are not considered desirable ones for the R.A.M.C., though seeing that medical officers have to move among men of good education, I should think the possession of an Arts degree an advantage rather than otherwise.

To have held a resident hospital appointment is considered by Mr. Edmund Owen and others as a most important qualification in would-be candidates; certainly such men will find their experience invaluable, and their patients will have reason to be thankful for it. I believe that candidates for the medical service of the United States army must produce evidence that, after qualifying, they have held a resident hospital appointment for one year, or acted as assistant to a medical man for that time.

Surgeon-General Hamilton's proposal, if carried out, would lead to the service being recruited with men fresh from the crammer, with practical knowledge much inferior to that of the average man entering civil practice, for the latter nowadays recognises the necessity of holding hospital appointments or of acting as assistant to a good man if he is to hope for success in practice and do his duty to his patients.—I am, etc.,

December 22nd, 1898. M.B.

AXIS TRACTION WITH ORDINARY FORCEPS.

SIR,—In the BRITISH MEDICAL JOURNAL of December 24th, 1898, Dr. Le Page criticises, somewhat unkindly, a paper of mine on the above subject. I hasten to assure him that I recommend the use of only just so much power as will advance the head; of course this amount may be considerable, and I suppose Dr. Le Page will admit that it is sometimes more than he is able to exert with his mechanical tractor. Yet he says "all difficulty disappears."

Dr. Le Page does not deny that the result of my method is to give axis traction, but he appears to object to the principle it involves, while he advocates his claw-tractor. But the action of this instrument on the forceps is similar to that which I recommend him to perform with his hands. When traction is made from the handle of his tractor it pulls on the lock of the forceps with its claw, while it presses on their handles with its thumb; like as I advise him to pull with the left hand while pressing with the right.

The principle being the same, it is better to transmit these forces to the forceps by the hands instead of by a tractor; of course assuming that the hands of the operator are capable of more tactile sensibility than an iron tractor, and of greater manipulative nicety than a loose claw which allows the lock "considerable play." His own hand is much easier to apply than an artificial claw; and when he has found out the full use of his arms he will be glad to relegate his various tractors to a museum of antiquities.

There are many such mechanical devices, but each of them only allows traction in one straight line in relation to the forceps. With Tarnier's instrument this line passes from the centre of the resistance to the child's head to the pivot where the tractors join the blades; in Dr. Le Page's it passes from the child's head to the handle of the tractor. This line may or may not be the line in which the head must advance; but it is generally better than pulling straight at the ordinary forceps, and so is an advantage to those who do not know how to use their arms properly. But by using one's arms as adaptable tractors the line of least resistance can be felt, and the line of traction be adjusted to the needs of the particular case.

If in his next high operation Dr. Le Page will examine the forceps in their "natural" position he will find that they are close to the pubes, because the perineum presses them there; and if he tries my method he can easily satisfy himself that no compression need be used.—I am, etc.,

Croydon, Dec. 27th, 1898. T. ARCHIBALD DUKES.

THE PREVENTION OF TUBERCULOSIS.

SIR,—In the campaign now being carried on against tuberculosis, there seem to me to be two measures of the first importance upon which sufficient stress has not been laid:

First, the disinfection of the houses in which one or more cases of phthisis have occurred. In such houses one member after another of a family inheriting the same predisposition is exposed to tuberculous infection, and easily falls a victim. I have seen the floors taken up in such a house, with low irregular rooms and no ventilation; loads of foul and mouldy *débris*, amongst which was a coin of last century, were removed. We of the medical profession can recommend families with such a history not only to live in the open air, but also to disinfect the houses thoroughly; and we can awaken the laity to the danger of occupying such houses without taking means to secure their own safety from infection.

Secondly—and this is perhaps more important—the disinfection of lodgings. In Bournemouth, Ventnor, and other resorts, lodgings are occupied for months together by patients exhibiting all stages of phthisis. A patient goes to one of these places, one of feeble lung constitution, or a convalescent from some pulmonary disease; goes to the very room in which a consumptive has lived for months, and in which no disinfection has been carried out. Could they well have a better chance of contracting the deadly disease?

In this direction a reform would not be difficult. Disinfection would become the rule in such cases if we always recommended patients to inquire about previous lodgers, and to insist on the measure before taking rooms which may have become infected. Owners of lodging houses would soon find it necessary to produce a certificate of adequate disinfection.—I am, etc.,

Sevenoaks, Jan. 7th. FRANK M. BURNETT, M.D.Lond.

AMBULANCE AND HOME NURSING IN THE EVENING CONTINUATION SCHOOLS CODE.

SIR,—I observe an article under the above heading at page 41 of the BRITISH MEDICAL JOURNAL for January 7th. Perhaps you will be so kind as to allow me to state that the first aid and nursing syllabuses of the St. John Ambulance Association were not "published in 1893" for the first time as stated, but the first aid syllabus, No. 58, made its appearance in 1878, and the nursing syllabus, No. 60, shortly afterwards, and both have been in daily use all over the world ever since with scarcely any alteration. There is ample corroboration of this assertion in the published reports, regulations, and documentary and printed records which have been here in my custody for the last twenty years. What has misled your correspondent is that for the past five years the date "14th September, 1893" has appeared on the back of syllabus 60. This reference does not allude to the subject matter of the lectures on the front page, but to certain notes on the back, being alterations in previous regulations—namely, the extension of the nursing course to men, and to candidates who do not already hold the first aid certificate. Our circular, "R. R." 1893, calling attention thereto, was issued on that date, which was placed on the back of the syllabus for convenience of reference, as the new rule affected the qualification of candidates for the medallion.—I am, etc.,

HERBERT C. PERROTT,
Chief Secretary, St. John Ambulance Association.
St. John's Gate, E.C., Jan. 9th.

THE CAUSATION OF EPIDEMIC GOITRE.

SIR,—Dr. Fentem's letter in the BRITISH MEDICAL JOURNAL of November 19th, 1898, is interesting. Having paid much attention of recent years to the question of the causation of endemic goître, I am forced to the conclusion that the cause is to be found either in soil bacteria, or in the decomposition of the metallic sulphides, iron and copper pyrites. Lustig and Carle found a particular bacillus, which they name the "bacillus liquefaciens," in all the goîtrigenous waters of the Vale of Aosta examined by them,[1] but they did not prove that the elimination of the microbes deprived the waters of their goîtrigenous properties. Moreover, their experiments on animals, carried out with pure cultures of this bacillus, either by subcutaneous injection or by feeding for a length of time by the mouth, were productive of no result. In my opinion this may indicate that the chemical surroundings of this bacillus in its soil-home provide the virulence necessary to produce the disease, and that an artificially-prepared culture is comparatively innocuous. It is curious that St. Lager found minute particles of iron and copper pyrites in suspension in the waters of the "torrente Buthier" used by Lustig and Carle in their researches. The principal facts in favour of a bacillary origin of endemic goître, in my opinion, are:

1. That filtration diminishes and boiling actually destroys the goîtrous principle in water.
2. The occurrence of epidemic goître.

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[1] Lustig and Carle, "Sull' Etiologia del Gozzo Endemico," July number of *Journal of Royal (Italian) Academy of Medicine*, 1891.

3. The occurrence of endemic goitre in rural districts where little care is exercised in choosing a water supply, where in many cases surface water only is used, or subsoil water which has merely percolated through a porous superficial stratum, and is recovered for domestic use by the agency of the village pump.

4. The frequency of goitre on the limestones of the carboniferous series, where, it may be, the water from the surface percolates rapidly along the free joints of these limestones, carrying bacteria in its train.

5. The goitrigenous action of many river waters, a great part of whose volume is derived from surface drainage.

6. The occurrence frequently in goitrigenous waters of nitrates or nitrites, indicating the presence and activity of soil bacteria.

7. The lessening degree of poisonous action in goitrigenous waters as they flow away from their source, due in all probability to the bacillus-destroying agencies of exposure to sunlight and oxygen.

Against the bacillary theory the chief arguments seem to me as follows:

1. The rapid disappearance of early goitres when removed from poisonous localities.

2. Absence of recorded constitutional disturbances (for example, fever) in epidemic goitre.

3. The notorious instance of epidemic goitre occurring in midocean recorded by Foster during one of Captain Cook's voyages, where the disease was due to the drinking of melted ice on the part of certain of the crew.

In my own opinion, the causation of endemic goître is due to the results of the decomposition of the metallic sulphides before mentioned. A nascent sulphate may be the cause, and although the evidence in favour of this is very convincing, yet space will not admit of the numberless instances I might quote being brought forward. Paracelsus thought that iron pyrites was the cause of goître. "Struma (goître) ex mineralibus, ut alia quæ oriuntur ex eisdem, sicut intempestiva marchasita (FeS_2), vel mineralia cruda, nascitur."

I do not believe that heredity plays any important part in the etiology of this disease. The children are exposed to the same poisonous influences as their parents. Moreover, in Valais, it has been noted in some goîtrous districts that women who had previously given birth to cretins, if they spent the period of gestation in a healthy district, gave birth to healthy children; conversely, women who had previously produced healthy children were delivered of cretins when they came to reside in goîtrous localities. In the female the thyroid seems a more sensitive organ than in the male, and the thyroid of the married female seems the most sensitive of all. The worst cases I have seen have been in married women. Women, of course, in this country are greater water drinkers than men, and this probably accounts for the preponderance of the disease in the female sex.—I am, etc.,

LOUIS E. STEVENSON, M.B., F.G.S.

Temple Sowerby, Penrith, Nov. 28th, 1898.

OBITUARY.

SIR JAMES MOUAT, K.C.B., V.C.,

Surgeon-General; Honorary Surgeon to the Queen.

THE death of this distinguished army medical officer, at the age of 83, took place at his residence in London on January 4th. He was born in 1815, educated at University College Hospital, became a Member of the Royal College of Surgeons in 1837, and a Fellow in 1852.

He entered the army as Assistant-Surgeon in December, 1838, became Surgeon in 1848, Surgeon-Major in 1855, Deputy Inspector of Hospitals in 1858, and Inspector-General in 1864; he retired in 1876, with the title of Surgeon-General. In the Crimea he was Surgeon of the 6th Dragoon Guards, and also had charge of the General Field Hospital of the 3rd Division, and was Principal Medical Officer at Balaklava. He served throughout the siege of Sebastopol, and was present in several engagements, including the battles of Balaklava, Inkerman, and Tchernaya, for which he received medal and clasps.

At the battle of Balaklava he won the Victoria Cross for very distinguished gallantry: Colonel Morris, 17th Lancers, was lying wounded in a very exposed position in front of the enemy; at great personal risk Mouat went to him, dressed his wounds, arrested hæmorrhage, and thereby saved his life.

Subsequently he served in the New Zealand wars of 1860 and 1863-5, and was repeatedly mentioned in despatches for meritorious conduct in the field, received the medal and also the thanks of the New Zealand Government for "special and valuable services rendered to the colony" (medal).

He received a good service pension in 1868; was appointed Honorary Surgeon to the Queen in 1888; and made a K.C.B. in 1894. His father was an army medical officer, and his brother was Dr. F. J. Mouat, who, after a distinguished career in the Indian Medical Service, held for many years an appointment in the Local Government Board, died in 1897.

One who served under Sir James and knew him well, furnishes the following reminiscences of him:

"There never was a more thorough soldierly medical officer than Mouat; he was every inch military. A very dapper, well-made man, he was always faultlessly dressed, whether in uniform or in mufti; nothing annoyed him more than slovenly or shabby attire, especially among medical officers. His rather brusque manner and strict military ways were on occasions somewhat unpleasant to those under him; but he was always their champion. If a little mild martinetism was permissible to himself, yet, if any outsider tried to bully a medical officer, he was at once up in arms. As an example of this, the writer can remember, while Mouat was Principal Medical Officer at Aldershot and his office only thinly partitioned from the medical officers' library, overhearing him trouncing an officer of another department who had been discourteous to a young assistant-surgeon. He had a very sharp tongue, and as he usually got hold of the right end of an argument, was formidable in dispute. Himself an admirable regimental surgeon, he long favoured a return to the regimental system; but latterly, seeing that to be impossible, frankly accepted the corps autonomy with military titles. As he set no small value on himself or his military position, he always kept up considerable style, and was the only senior medical officer the writer can recall who made his camp inspections in a well-appointed carriage and pair.

"Sir James Mouat was held in deserved respect by all branches of the service; and in private life was an attached and sincere friend of those who won his esteem."

EDMUND W. DAVY, M.D.,

Dublin.

WE have to announce with much regret the death of Dr. Edmund W. Davy, of Dublin. Dr. Davy graduated M.B. in the University of Dublin in 1848, and took the degree of M.D. in 1872. He became Lecturer on Chemistry in the Carmichael School in 1850, and in 1870 he was appointed Professor of Medical Jurisprudence in the Royal College of Surgeons. He was also a Public Analyst to several counties in Ireland. He was devoted to the study of chemistry, and he communicated many valuable papers to the learned societies. He was the first to effect the complete decomposition of urea by the action of the hypochlorites, for estimamation of that substance, a method, modified by other chemists, now in general use. He also described several new salts, particularly of the alkaloids, and chemical tests for strychnine, carbolic acid and nitrous acid, alcohol and arsenic.

He came of a good stock, for his father was also a distinguished chemist and a Fellow of the Royal Society, who was for some time an assistant in the Royal Institution, under the direction of his cousin, the famous Sir Humphry Davy.

Dr. Davy was an able and most courteous gentleman. His modest and retiring disposition was his only fault; but all who knew him liked him well, and truly appreciated his great merits.

SURGEON-GENERAL LEWIS STANHOPE BRUCE died at Ealing on January 2nd, in his 68th year. He was the second son of the late Lieutenant-Colonel Louis Bruce, who fell at the battle of Ferozeshah on December 21st, 1845. Surgeon-General Bruce joined the Indian Medical Service (Bombay Establishment) on May 6th, 1854, became Surgeon-Major July 1st, 1873; Brigade-Surgeon, November 27th, 1879; Deputy Surgeon-General (Bombay Presidency), September 15th, 1882, and retired on September 15th, 1887, with the honorary rank of Surgeon-General. He served in the Indian Navy in 1856-57 in Persia, landing at Hallilah Bay, and being present at the bombardment and surrender of Bushire, and with the 3rd Regiment Bombay Light Cavalry in the expedition to Borazjoon, being present at the battle of Kooshab. For these services he received the medal with clasp. During the Indian Mutiny he served with the 3rd Bombay Light Cavalry in the Central India campaign of 1858, taking part in the pursuit of

Tantia Topee and of the enemy from Rajghur, which resulted in the capture of twenty-seven guns. He was also present at the battle of Sindwahoe and the skirmish at Kural, receiving the medal. In the Afghan war of 1880 he acted as principal medical officer of the 2nd Division of the Candahar Field Force, and subsequently of the South Afghanistan Force, taking part in the march to the relief of Candahar with the force under Major-General Phayre. For these services also he received a medal.

We regret to announce the death of Dr. **Henry Kenneth Paxton**, a nephew of Dr. John Paxton of Norham, whose assistant he had been for a short time. Dr. H. K. Paxton, who was only 23 years of age, took the degrees of M.B. and C.M. at the University of Edinburgh in October, 1898. During the few weeks he had been at Norham Dr. Paxton had endeared himself to the inhabitants of the village and neighbourhood by his courtesy, kindness, and attention. As his death was sudden, an inquest was held. Dr. R. W. Cunningham, who made a *post-mortem* examination, stated that he had valvular disease of the heart and congestion of the kidneys; the cause of death in his opinion was heart failure caused by acute inflammation of the valves of the heart, possibly accelerated by fatigue. The jury returned a verdict of death from natural causes.

We regret to announce the death of Dr. **John B. Hamilton**, the editor of the *Journal of the American Medical Association*, which occurred at Elgin, Illinois, on December 24th, 1898. Dr. Hamilton was born in Jersey County, Illinois, on December 1st, 1847, and took his degree at the Rush Medical College, Chicago, in 1869. In 1874 he obtained a commission as Assistant Surgeon in the Medical Department of the United States Army. Two years later he resigned his commission, and entered the Marine Hospital Service as Assistant Surgeon. In 1879 he was appointed Supervising Surgeon-General of the Service. Dr. Hamilton introduced important reforms into the service, among them being the introduction of examinations of the eyesight of pilots and of physical examinations of seamen before shipment. During his tenure of office he succeeded in having the National Quarantine Acts passed. In 1896 Dr. Hamilton resigned his position in the Marine Hospital Service, and soon afterwards he was appointed Superintendent of the Insane Asylum at Elgin, near Chicago, where he died. He was also for some time Professor of Surgery in the Rush Medical College, Chicago, where he held several hospital appointments. Dr. Hamilton did good work as head of the Marine Hospital Service, in which capacity he had to contend with two serious epidemics of yellow fever in the South. As editor of the *Journal of the American Medical Association* he was recognised as an able journalist. He greatly improved the journal, and increased the influence of the Association of which it is the mouthpiece.

Mr. **Alfred Kebbell**, M.R.C.S.Eng., died at his residence, Flaxton, York, on December 21st, 1898, at the age of 51. A native of London, he received his medical education at the London Hospital, where he took a first prize in minor surgery, and held the post of House-Surgeon. He subsequently held a similar post at the York County Hospital, and then settled at Flaxton, where he had an extensive practice for nearly twenty-four years. He was a member of the British Medical Association, and held the appointments of Medical Officer and Public Vaccinator to the Fourth District of the York Union, and Medical Officer to the Whitwell Convalescent Home from its foundation. He contributed papers on various subjects to the medical journals; and his interest in all sanitary matters was conspicuous. He had a wide circle of friends, by whom deep sympathy has been felt for his widow and seven children.

The death is announced, at the age of 86, of Mr. **Timothy Lorkin Walford**, the oldest member of the profession residing in Reading. He was born in September, 1812; and obtained the qualification of L.S.A. in 1833, and that of M.R.C.S.Eng. in 1837. He settled at Reading, and became Medical Officer to the Union, holding the post for many years. He entered the Reading Town Council in 1850, and in 1855 was elected Mayor of the Borough. He was subsequently made an alderman and a magistrate. At the time of his death he was the senior magistrate on the local bench. He was for more than fifty years a director of the Reading Cemetery Company. He retired from practice some years ago, and had been lately in failing health. The funeral took place at the Reading cemetery, and several members of the profession in Reading were present at the graveside.

Deaths in the Profession Abroad.—Among the members of the profession in foreign countries who have recently died are Dr. Constantine Vousakis, Professor of Physiology in the University of Athens; Dr. Martinez Pacheco, a member of the Spanish Senate; and Dr. Manuel Tapia y Serrano, for many years Assistant Professor in the Medical Faculty of the University of Madrid.

ROYAL NAVY AND ARMY MILITARY SERVICES.

ARMY MEDICAL STAFF EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

Wanted by Major R.A.M.C. under orders for Bombay, leaving probably in February, an exchange to remain at home for a year or nine months longer. Address "Hartlip," care of Messrs. Holt and Co., 3, Whitehall Place, London, S.W.

ROYAL NAVY MEDICAL SERVICE.

Fleet-Surgeon Valentine Duke, B.A., M.B., has been placed on the retired list, with the rank of Deputy-Inspector-General, January 5th. His commissions are thus dated: Surgeon, September 7th, 1867; Staff-Surgeon, December 20th, 1878; and Fleet-Surgeon, December 22nd, 1887. He was Fleet-Surgeon of the *Calliope*, at Apia, Samoa, in March, 1889, during the terrible hurricane, which, according to Captain's Kane's report, "caused disaster unprecedented since the introduction of steam," and when the conduct of the officers and men received the high approval of the Lords of the Admiralty.

The following appointments have been made at the Admiralty: **Arthur W. Russell**, Fleet-Surgeon, to the *Pembroke*, for Chatham Dockyard, January 17th; **James L. Sweetnam**, M.D., Fleet-Surgeon, to the *Pembroke*, temporarily, January 17th; **Archibald M'Kinlay**, Fleet-Surgeon, to the *Howe*, January 17th; **Alfred H. Miller**, Fleet-Surgeon, to the *Resolution*, January 17th; **James C. F. Whicher**, Staff-Surgeon, to the *Melampus*, January 17th; **Frederick J. Burns**, M.D., Staff-Surgeon, to the *Pactolus*, January 17th; **William Eames**, Staff-Surgeon, to the *Theseus*, January 17th; **William S. Lightfoot**, Staff-Surgeon, to Plymouth Hospital, January 17th; **Jerome Barry**, M.D., Staff-Surgeon, to the *Pegasus*, January 17th; **George H. Foott**, Staff-Surgeon, to the *Pelorus*, January 17th; **Hugh W. Macnamara**, Staff-Surgeon, to the *Boscawen*, January 25th; **J. M,artin** Surgeon, to the *Theseus*, January 17th.

ARMY MEDICAL RESERVE.

Surgeon-Captain M. Mackenzie to be Surgeon-Major, January 11th.

Surgeon-Captain **Robert Mitchell**, M.D., 1st Volunteer Battalion the Lancashire Fusiliers, to be Surgeon-Captain, January 11th.

ROYAL ARMY MEDICAL CORPS.

Captain Alexander J. Chambers is placed on temporary half pay on account of ill-health, January 9th. He was appointed Surgeon-Lieutenant, July 27th, 1892; and Surgeon-Captain, July 27th, 1895.

MILITIA MEDICAL STAFF CORPS.

Mr. Jonathan Clerke is appointed Surgeon-Lieutenant, January 11th.

THE VOLUNTEERS.

Surgeon-Lieutenant-Colonel S. Gourley, 4th Durham Artillery (Western Division Royal Artillery), has resigned his commission, January 11th; he retains his rank and uniform.

The undermentioned gentlemen are appointed Surgeon-Lieutenants in the corps specified, dated January 11th: **Arthur E. Larking**, M.D., 1st Volunteer Battalion the Buffs (East Kent Regiment); **George B. Masson**, 3rd Volunteer Battalion the Norfolk Regiment; **William G. Brett**, 1st Volunteer Battalion the Dorsetshire Regiment; **James McK. Harrison**, M.B., 1st Herefordshire Rifles.

Surgeon-Captain H. G. G. **Wilkins**, 2nd Volunteer Battalion the Duke of Cambridge's Own Middlesex Regiment, has resigned his commission, January 11th.

THE ARMY MEDICAL SCHOOL, NETLEY.

In a note under this title published last week, we were led into error by the somewhat obscure wording of the regulations with regard to nominations to the Royal Army Medical Corps. The fact is that the officers nominated will come after those admitted as the result of competition. Their places in relation to each other will be determined by the result of the examination at the end of the Netley course. We understand that the wording of the regulations will be modified to remove the ambiguity to which we have referred.

CHANGES OF STATION.

THE following changes of station amongst the officers of the Royal Army Medical Corps have been officially reported to have taken place during the last month:

		From	To
Lieut.-Colonel	R. H. Quill, M.B.	Chatham	Ceylon.
,,	C. W. M. Keys, M.D.	Belfast	Mauritius.
,,	M. R. Ryan, M.D.	Malta	Crete.
,,	J. L. Peyton, M.B.	Curragh	Limerick.
Major	R. O. Cusack	Limerick	Bengal.
,,	W. D. A. Cowen	Egypt	,,
,,	A. O. Geoghegan, M.D.	,,	,,
,,	P. M. Carleton, M.D.	Templemore	Limerick.
,,	F. B. Maclean	Shoeburyness	Punjab.
,,	J. Carmichael	Cork	,,
,,	H. P. Birch	Bombay	Devonport.
,,	G. B. Russell, M.B.	Tipperary	Punjab.
,,	B. F. Zimmermann	Aldershot	,,
,,	R. I. Power	Ballincollig	Madras.
,,	C. A. Lane, M.B.	StraitsSetlmts.	Ceylon.
,,	F. J. W. Stoney	Kinsale	Madras.
,,	T. H. Corkery	Kilworth	Waterford.
,,	J. J. O'Donnell, M.D.	Dover	Bengal.
,,	R. W. Wright	Egypt	,,
,,	R. J. D. Hall	Lydd	Dover.
,,	E. S. Marder	Egypt	Portsmouth.
,,	T. du B. Whaite, M.B.	—	Bengal.
,,	H. T. Knaggs, M.B.	Bombay	Chatham.
,,	R. H. Penton, D.S.O.	Punjab	Egyptn. Army.
,,	W. S. Dowman	Bengal	C. of G. Hope.
Captain	W. J. Trotter	C. of Gd. Hope	Bengal.
,,	J. Minniece, M.D.	EgyptianArmy	Punjab.
,,	E. G. Browne	Cork	,,
,,	E. C. Freeman	Gosport	Bermuda.
,,	R. J. Copeland, M.B.	Dover	Woolwich.
,,	H. S. Peeke	Portsmouth	Canada.
,,	L. Way	Woolwich	London.
,,	H. D. Mason	Colchester	Norwich.
,,	W. E. Hardy	Woking	C. of G. Hope.
,,	J. E. Brogden	Egypt	Bombay.
,,	G. W. Tait, M.B.	Woolwich	West Africa.
,,	N. Faichnie, M.B.	West Africa	Dover.
,,	F. W. Begbie	Bengal	Netley.
,,	E. M. Morphew	,,	Cork.
Lieutenant	J. McD. McCarthy	Egypt	Bengal.
,,	J. Poe, M.B.	,,	Curragh.
,,	P. H. Collingwood	,,	Bombay.
,,	C. J. O'Gorman	Dublin	C. of G. Hope.
,,	G. S. Nickerson, M.B.	Colchester	Egyptn. Army.
,,	S. O. Hall	,,	Bombay.
,,	J. S. Gallie	Edinburgh	Fort George.
,,	F. J. C. Heffernan	Dublin	Athlone.
,,	A. E. Thorp	Chester	Liverpool.
Quartermaster	G. L. Allen	Netley	Dublin.

THE MEDICAL SERVICE OF THE RUSSIAN ARMY.

THE REGIMENTAL SYSTEM.

THE active army of Russia contains a total of field troops amounting to 28,742 officers and 1,266,701 non-commissioned officers and men. These figures do not include "field reserve troops," "fortress troops," "depôt" or "local" troops, or "Imperial militia." If included, they would bring the grand total up to 64,392 officers and 3,310,203 non-commissioned officers and men. In peace there is no medical corps in the Russian army existing as a unit by itself. Each combatant unit has a small medical *personnel* belonging to it: the medical establishment for a regiment of infantry of four battalions, for example, being 1 senior and 4 junior surgeons, 1 senior and 12 junior dressers, 1 apothecary dresser, 14 dresser pupils, 1 hospital sergeant, and 3 hospital orderlies, all non-combatants. Each unit has its own hospital, that of an infantry regiment numbering 16 beds. In addition there are in certain of the larger garrisons hospitals for more severe cases, with beds for 150 to 800 men, and to these a medical *personnel* varying from 4 to 18 medical officers, with the necessary subordinates, is attached. From the above, as cadres, are formed all the medical units required in mobilisation, the extra medical *personnel* being taken from the reserve, and the drivers supplied from the reserve of the cavalry.

FIELD ORGANISATION.

Each unit in the field has a medical *personnel*, with requisite stores and transport. Taking an infantry regiment, as an example, the medical *personnel* is the same as in peace, except that there are 20 junior and company dressers, and no dresser pupils. The material comprises stores for a hospital of 16 beds. In addition, each dresser carries a dresser's knapsack for first aid, and 32 stretchers are provided. The medical transport consists of 4 one-horse carts for medical stores, 1 two-horse waggon with stretchers, etc., and 4 four-horse ambulance waggons. Six men per company are trained as stretcher bearers, and when so employed wear the Red Cross badge on their left arm, but otherwise take their places in the ranks. The medical arrangements in other units are of the same kind. In action the regimental medical *personnel* form advanced dressing stations for first aid to the wounded. When troops are halted a regimental hospital is organised.

Surgeons wear dark green tunics and trousers, with cuffs and collars of the same colour, with scarlet piping. The forage cap is dark green, with a dark green band and scarlet piping. Their shoulder pieces are narrower than those of combatant officers, and are lined with silver lace. The subordinate *personnel* wears the uniform of the regiment.

SANITARY DIVISIONS.

To each active or reserve infantry division in the field is attached a "sanitary division," which forms part of the divisional supply and transport column, and consists of (1) "divisional hospital," and (2) "mobile hospitals." The former corresponds to the British "bearer company," and the latter to the "field hospital." In each of the rifle brigades of the line is attached a "brigade hospital" corresponding to the "divisional hospital" of an infantry division.

DIVISIONAL HOSPITALS.

The duty of the divisional hospital in action is to form a main dressing station to search for and bring in the wounded from the field or the advanced dressing stations to it, and to co-operate with the troops in despatching the wounded to the field hospitals told off for them. The main dressing station is marked by day by two flags, one the National, the other the Red Cross, and at night by lanterns. The strength of a divisional hospital is 1 combatant officer (who commands the hospital and bearer company), 5 surgeons, 1 official, 29 non-combatant medical subordinates, a bearer company of 217 non-commissioned officers and men, and 39 transport non-commissioned officers and men—total, 285 non-commissioned officers and men, with 78 horses and 27 carriages. Each hospital is supplied with 1 special and 50 ordinary stretchers, 10 boxes each with 200 sets of bandages, 50 lanterns, and 50 bandaging knapsacks (1 of each per stretcher), 4 dressing tents, 2 operating tables, stores, food, etc. The transport vehicles consist of 8 four-horse ambulance wagons, 3 one-horse medical store carts, 15 two-horse store wagons, and 1 four-horsed store wagon for the heavy parts of tents.

Rifle Brigade Hospitals.—The duties are as described for a "divisional" hospital. The strength, 1 brigade surgeon commanding, 3 other surgeons, 1 hospital overseer commanding bearer company with 1 assistant (officials), 21 non-commissioned medical subordinates, a bearer company of 141 non-commissioned officers and men, and 32 transport non-commissioned officers and men—194 non-commissioned officers and men in all, with 56 horses and 25 carriages. Material, same as divisional. Transport vehicles consist of 8 two-horse ambulance wagons, 15 two-horse store wagons, and 2 one-horsed medical store carts.

Mobile Hospitals form the third line of medical assistance, and each affords accommodation for 10 officers and 200 men. After an action they are emptied and follow their division. The strength of each consists of 5 surgeons, 4 other officials, 107 non-commissioned officers and men (including 28 for transport), 4 sisters of mercy, 57 horses, and 25 carriages. The material: bedding and hospital clothing for 10 officers and 200 men, 210 bedsteads, 105 small tables, 40 stretchers, 3 large tents for 20 men. The transport vehicles: 19 two-horse store wagons, 1 four-horse wagon for heavy parts of tents, 4 one-horse medical store carts, and 1 four-horse carriage for the sisters of mercy.

Mobile Field Hospitals.—Two are mobilised by each active infantry division in addition to the 2 mobile field hospitals included in the sanitary division of each infantry division.

Second Reserve Field Hospitals.—These are established on "lines of communications." In all 240 are maintained. They have no transport, as their *personnel* and stores are forwarded by rail, or on requisitioned carriages.

Military Sanitary Convoys and Field Dispensaries.—There are mobilised 20 military sanitary convoys. The strength of each is 1 combatant officer in command, 2 surgeons, 98 non-commissioned officers and men (including 71 for transport duty), 2 sisters of mercy, 137 horses and 36 carriages, including 27 four-horse ambulances, 1 four-horse kitchen wagon, 7 two-horse store wagons, and a one-horse medical store carts.

The Field Dispensaries supply divisional and field hospitals with all the medical and surgical stores required. Seven in all are mobilised. Each is provided with a supply equal to four months' requirements, and has a *personnel* of 3 officials and 21 non-commissioned officers and men. Transport is provided when required.

REPORT OF THE SURGEON-GENERAL OF THE UNITED STATES ARMY.

THIS report to the Secretary for War has been published, and is noticed in the American medical press. One significant fact is noted—namely, that the number of medical officers allowed to the army (192) is inadequate even in times of peace, and in consequence of this it became necessary during the last war to employ a staff of 650 "contract surgeons." These raw medical recruits were assigned responsible positions, and afterwards charged with incapacity. The prevalence of much sickness in the various camps is frankly charged to imperfect sanitation and want of experience of medical officers in charge, rather than to badly chosen sites for the camps. The demand for male nurses far exceeded the supply from the trained hospital corps. It was impossible to get suitable men from regiments, and trained assistants from outside sources were not procurable. Medical supplies were in abundance, but adequate and timely transport for them was impossible. A leading factor of diseased conditions was the reduction of the age limit for enlistment from 21 to 18 years. Camps were established in proximity to large cities, with deplorable results—namely, dissipation and drunkenness. The experience of the late war is dearly bought by sickness, suffering, and death; but striking object lessons are offered in army organisation which should be of great service in the future. The pressing need of centralised power in the consistent distribution of those responsibilities which may make the army and all its different departments a grand and perfect machine is expressed in the notices of the Surgeon-General's report to the United States War Secretary.

THE REPORT OF THE SURGEON-GENERAL UNITED STATES NAVY.

THE report of the Surgeon-General of the United States Navy has been published. The great value and efficiency of the ambulance ships have been amply demonstrated, whatever other points remain to be elucidated. Infectious disease—for example, yellow fever—was promptly met by measures for isolation, disinfection of quarters, and removal of those who were well to a place beyond danger of infection. The naval hospitals were equipped to their full capacity; plans prepared for building pavilion wards on the hospital grounds to give accommodation to any number of sick and wounded. The director of the naval laboratory was prepared to furnish medical and surgical supplies in any quantity, at any place, and immediately. The vessels likely to be engaged were supplied with a full outfit of war supplies; while medical and surgical outfits of a kind suitable for the various classes of vessels were bought, assembled and boxed ready to be supplied anywhere as soon as called for. There was not an instance during the war of any vessel having to wait for her medical stores. In short the preparations to meet any possible contingency were distinguished by promptness and thoroughness.

VOLUNTEER MEDICAL STAFF CORPS.

Princess Christian will distribute the prizes to the London Companies, Volunteer Medical Staff Corps, on Friday, January 27th.

THE VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION.

The following officers who have been under instruction from the staff of the School have recently passed the proficiency examination conducted by officers of the Royal Army Medical Corps at the headquarters of regimental districts, namely: Surgeon-Major C. Godson, M D., M.R.C.P., Army Medical Reserve of Officers; Surgeon-Captain A. Abraham, 5th Volunteer Battalion Durham Light Infantry; Surgeon-Lieutenants J. W. Edwards, M.B., Tees Division Submarine Miners, Royal Engineer Volunteers; J. F. Fotheringhhm, M.D., Queen's Own Rifles of Canada; D. G. Newton, M.B., 1st Volunteer Battalion York and Lancaster Regiment; J. F. Hall, M.B., 3rd Volunteer Battalion the Queen's Royal West Surrey Regiment; J. F. McCann, M.D., M.R.C.P., 1st Middlesex (Victoria and St. George's) Rifle Volunteers; J. E. Bates, M.B., Bearer Company, Surrey Volunteer Brigade; J. Allison, M.D., 1st Volunteer Battalion Northampton Regiment; J. W. Bone, M.B., 3rd Volunteer Battalion Bedfordshire Regiment; D. Monro, M.B., 1st Galloway Rifle Volunteers; W. K. Pauli, 3rd Volunteer Battalion Bedfordshire Regiment; J. Oldfield, 1st Volunteer Battalion Essex Regiment; C. Stephens, M.B., 3rd Volunteer Battalion Suffolk Regiment; J. Forsyth, M.B., 1st Essex Volunteer Artillery; W. T. Crawford, M.D., 4th Volunteer Battalion Derbyshire Regiment; P. D. Minchin, 2nd Volunteer Battalion the Queen's Royal West Surrey Regiment; J. Raywood, 5th Volunteer Battalion the South Wales Borderers; L. Demetriadi, F.R.C.S., 2nd Volunteer Battalion (the Duke of Wellington's) West Riding Regiment; J. W. Cook, M.B., 1st Volunteer Battalion the Lancashire Fusiliers; C. Bucknill, 2nd Volunteer Battalion the East Lancashire Regiment; D. Hamilton, F.R.C.S., 4th Volunteer Battalion the Manchester Regiment; E. McCarthy, 4th Volunteer Battalion the Cheshire Regiment; G. Hawkins-Ambler, F.R.C.S., 1st Lancashire Royal Engineer Volunteers; A. Renshaw, 3rd Volunteer Battalion the Cheshire Regiment; C. T. Green, 1st Volunteer Battalion the Cheshire Regiment.

PAY OF JUNIORS, R.A.M C., IN INDIA.

Medicus Indicus writes: In full confidence that the British Medical Association will see justice done, I beg to expose the following six grievances which press very hard on the juniors of the R.A.M.C. serving in India. These officers do not complain of their treatment as regards pay by the Home or Colonial Governments, but have a clear grievance against the Government of India.

1. The junior medical officer is the only officer who does not benefit by coming to India, but, on the contrary, loses money.

2. A captain R.A.M.C. under five years' service receives Rs.350, an infantry captain Rs.417 per mensem.

3. R.A.M.C. officers in India have no appointments to look forward to or work for; they have no such billets as adjutantships, station staff officers, adjutant-generalships, transport appointments, etc.

4. Medical officers are continually knocked about; one had fourteen moves in nine months; regimental officers are rarely moved.

5. There are no travelling allowances, except Rs.3 a day when travelling by rail with troops, no allowance when travelling by road or alone; this is a grave hardship. At home and in the Colonies travelling allowances are granted when moving with or without troops. Officers of the Indian Medical Service in civil employ receive Rs.5 a day when travelling round their districts. No horse allowance is given to junior medical officers in India, even if called upon to do duties which would be impossible without a horse. The Punjab Government have recently imposed sanitary duties on medical officers involving travelling twenty or thirty miles at a single inspection, without any allowance for locomotion. On manœuvres Rs.30 a month is given, but only for the period engaged on mounted duty, and no provision made either for buying or selling the horse so required; he is expected instantly to provide a horse, and as quickly get rid of him. All this on Rs.350 a month.

6. No charge pay for station hospitals, section hospitals. or section field hospitals is given to R.A.M.C. officers, but given to those of the Indian medical, and even the subordinate medical, service.

⁂ It cannot be questioned that the position of junior officers of the R.A.M.C. serving in India, as regards pay and allowances, is most unsatisfactory. There can be little doubt that it has greatly detracted, in the eyes of possible candidates for the service, from the otherwise good effects of granting intelligible army status and title.

We lately observed a statement in the *Scotsman* to the effect that what it chose to call a fresh "boycott" of the Royal Army Medical Corps was likely on the score of pay, and mentioned as a grievance that officers of the corps with less than five years' service receive in India 100 rupees a month less than an infantry captain. Our contemporary added that the fact that promotion in the medical service is so much quicker than in the line explained the discrepancy.

But is it thus contended that medical officers who qualify for the army at their own expense and enter five or six years older than their combatant brethren are to have pay and promotion regulated by pure length of service on a regimental scale? That would surely be inequitable. The fact is that in the matter of pay the Home and especially the Indian Government already have, and in the future will have still more, to reckon on conditions rapidly affecting the entire medical profession. The numerical increase in the medical profession is perceptibly less in recent years than it has been for a long period, and the bolition of unqualified assistants has raised the rate of salary paid to qualified assistants by fully 25 per cent. The State will soon have to recruit in a rising market. We earnestly trust the Indian Government will lose no time in considering the question of pay and allowances of medical officers.

MEDICO-LEGAL.

THE DUTIES OF A POLICE SURGEON.

The city of Coventry having resolved to appoint a police surgeon at a salary of £50 a year, has issued a statement of his proposed duties, from which it appears that in addition to examining candidates for admission, treating the 55 members of the force in case of sickness or injury, providing all surgical instruments, drugs, etc., visiting prisoners at the police-station or persons found ill in the streets, he is to undertake to examine all males or females when called on by the police in all cases of rape or indecent assault, to examine all children committed to a reformatory or industrial school, and also, when required, any child or young person ordered by the justices to be whipped. No one can say that £50 is an excessive salary to pay for the performance of these various duties, yet it compares favourably with that given by other cities and towns—with Bath, for instance, where with 86 police the salary is £50; with Chester, where the surgeon is paid £30 for attendance on 47 police; with Exeter, where there are 52 police and salary £30; and with Oxford, 61 police, salary £30; while even lower amounts are paid in several other towns.

There are, however, two points in this list of duties which seem to us to require reconsideration. If the police surgeon is to provide all surgical instruments and things of a like description, he may be called upon to purchase trusses and elastic stockings, as well as splints etc. in case of fractures, which would put him at a disadvantage, not only as compared with metropolitan police surgeons, but even as regards Poor-law medical officers. Probably, however, this only requires to be mentioned in order to be rectified. The other point concerns the examination of males or females in cases of rape and indecent assault. It cannot be too strongly impressed upon whoever may be appointed that the police cannot authorise him to examine either males or females without their express assent to such examination, and that if he does so he does it at his own risk of an action for damages. Mr. Asquith's attention was specially directed to this matter by the Police Surgeons' Association when he was Home Secretary, and he admitted the desirability of sending instructions to all provincial police surgeons similar to those which are issued to metropolitan ones on their appointment. So far as we know, however, this has not yet been done.

"A WICKED FRAUD."

An inquest was held at Modbury, Devon, on January 6th, by Mr. R. R. Rodd, County Coroner, as to the death of James Wood, aged 59. According to the evidence—as reported in the *Western Morning News*—the widow deposed that the deceased had been suffering from diabetes, and had been treated first by Dr. Lakeman, of Modbury, and afterwards by Dr. Fox, of the Plymouth Dispensary; subsequently, having seen an advertisement, he consulted Mr. W. H. Roberts. The following is the report of the evidence of this person:

William Henry Roberts, who described himself as a gentleman with no occupation except that of an agent from Johannesburg, and residing at 2, Barton Crescent, Mutley, said he was not a qualified practitioner, although he advertised that he would cure cancer and diabetes. Deceased came to him because he had heard of the complete manner in which he (witness) had cured a lady whom witness named of a similar disease. He saw deceased in a public-house by arrangement, but did not examine him, nor did deceased make any statement to him relative to his disease except that he was suffering from diabetes. Witness gave him powders, and told him to write and let him know his habits and mode of life. Deceased had paid him £2 10s. on account, leaving a balance of £3 2s. Witness received a communication from deceased stating he was weaker, and suggesting a further interview. The powders he gave to deceased contained merely table salt for removing constipation, from which deceased also said he suffered. Had deceased lived he would have continued treating him, the amount demanded covering the whole treatment.

In reply to a juryman witness said he did not tell deceased not to see him for two months. Deceased told him a doctor in Plymouth said the disease was incurable. Did not treat nor prescribe for deceased, but merely sold him the powders.

Dr. Thomas Lakeman, of Modbury, said up to September last he attended deceased for diabetes, and then, as he could not afford to pay his terms, advised him to go to the hospital, where he would have more chance of recovery. Deceased was then able to do his work, although weak. When he saw the deceased on January 2nd he was in a state of collapse. Not knowing that Roberts was not a registered medical man he advised Mrs. Wood to wire for him, and at the same time wrote asking him if he was prepared to give a certificate, and, if not, he (witness) would have to place the matter in the hands of the police in the usual way. In his reply Roberts stated that he did not treat deceased, as he was careful not to treat any case, and he did not charge anything for an interview, but only to cover expenses he might incur. The *post-mortem* examination showed that all the vital organs were practically natural, and that deceased might, and ought to have, lived for several years longer. He attributed death to coma caused by diabetes. If the powders were simply table salt it was not injurious, and Roberts's treatment did not accelerate death. It was, however, probable that had deceased received proper medical attendance he would still be alive.

The inquest was adjourned for a few hours to permit an analysis of the powders. On its resumption Mr. Nicholas F. Lakeman, analytical chemist, said that the two packets of white powder proved to be a common table salt.

The coroner remarked that the inquiry had done good in exposing a wicked fraud practised on deceased and on the public. In view of the suddenness of Wood's death he hoped persons requiring medical aid would consult none but qualified medical practitioners.

The jury returned a verdict of death from natural causes, and, through the coroner, expressed themselves strongly that the treatment was absolutely useless and was nothing more than a fraud, and severely censured Roberts, warning him to be cautious as to his future actions.

LUNACY CERTIFICATION.

X.—It was within our correspondent's discretion to sign or not to sign, under the circumstances described.

INTERPRETATION OF CONTRACTS NOT TO PRACTISE WITHIN AN AREA.

MEDICA sends the following case: A. and B. were in partnership in a country town X., over twenty miles from London, and a few years ago A. retired from practice and sold his share to B. A. started in practice in London, and in the course of his practice there attended an old patient of his who had a town house. The patient came to stay near X., and requested A. to continue to attend, which he did on several occasions. A. also attended another old patient of his living near X. Both patients had been attended by B. in previous illnesses. The clause in the partnership deed is as follows: "Any partner withdrawing from the business shall not at any time during his life afterwards practise as a surgeon or apothecary within a distance of 10 miles from X under a certain penalty." There is no question of enforcing the penalty, but A. and B. are both anxious to know whether A. was justified, by the terms of the deed. in attending these patients.

*** Courts of law are disposed to scrutinise very closely contracts which have the effect of debarring a man from the free exercise of his profession or trade, and as a general rule it may be said that where such contracts are unreasonable, whether as to the period of the time or the area within which a person is so debarred, such contracts will not be upheld. In the present case, however, we are advised that the contract is perfectly reasonable in both the above-mentioned respects, and that though possibly in the case of the first patient there was some justification, there was certainly none in the second.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE SANITARY INSPECTORS' ASSOCIATION.

AT a recent meeting of the Sanitary Inspectors' Association Sir John Hutton gave his presidential address, in the course of which he observed that the comparatively small amount of unsound meat condemned was due to the want of opportunity of efficient inspection, and that until private slaughter-houses were abolished and a complete system of inspection and control of all meat offered for sale was brought into operation, we should not be free from a source of danger from preventable disease. Another matter referred to by Sir John Hutton was the increasing use of the public mortuaries. During the past year only 23 out of 7,428 inquests had been held in public houses. In every medico-legal case in which a *post-mortem* examination is necessary it is most important that it should be made under most favourable conditions such as can only be obtained in properly arranged mortuaries. The performance of necropsies in these cases in private houses is undesirable both from sanitary and medico-legal points of view, and it is a satisfaction to know that the general public are being gradually educated to see the benefit of the removal of the dead from their homes to the public mortuaries for this purpose.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 7,230 births and 4,174 deaths were registered during the week ending Saturday last, January 7th. The annual rate of mortality in these towns, which had increased from 16.6 to 19.1 per 1,000 in the three preceding weeks, was again 19.1 last week. The rates in the several towns ranged from 12.6 in Cardiff, 12.7 in Gateshead, 14.6 in Huddersfield, and 14.7 in Derby to 22.6 in Swansea and in Newcastle-upon-Tyne, 23.5 in Preston, 23.8 in Liverpool, and 27.7 in Halifax. In the thirty-two provincial towns the mean death-rate was 19.1 per 1,000, and corresponded with the rate recorded in London. The zymotic death-rate in the thirty-three towns averaged 1.7 per 1,000; in London the rate was equal to 1.6 per 1,000, while it averaged 1.7 in the thirty-two provincial towns, among which the highest zymotic death-rates were 2.6 in West Ham, 2.9 in Salford, 4.1 in Nottingham, and 5.5 in Swansea. Measles caused a death-rate of 1.0 in West Ham, in Bolton, and in Salford, 1.2 in Manchester, and 2.4 in Nottingham; and whooping-cough of 1.1 in Halifax. The mortality last week from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 96 deaths from diphtheria in the thirty-three towns included 30 in London, 11 in Swansea, 10 in Leeds, 9 in Liverpool, 6 in Sheffield, 5 in West Ham, 4 in Manchester, and 3 in Portsmouth. No fatal case of small-pox was registered during the week under notice, either in London or in any of the thirty-two large provincial towns, and 1 small-pox patient was under treatment in the Metropolitan Asylum Hospitals on Saturday last, January 7th. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 2,901 and 2,939 in the two preceding weeks, had declined again to 2,912 on Saturday last; 291 new cases were admitted during the week, against 260, 221, and 276 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, January 7th, 886 births and 651 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18.2 per 1,000 in each of the two preceding weeks, rose again to 21.3 last week, and was 2.1 per 1,000 above the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 18.3 in Paisley and 19.5 in Leith to 23.7 in Perth and 25.0 in Edinburgh. The zymotic death-rate in these towns averaged 2.6 per 1,000, the highest rates being recorded in Dundee and Aberdeen. The 283 deaths registered in Glasgow included 3 from measles, 7 from scarlet fever, 3 from diphtheria, 13 from whooping-cough, and 3 from "fever." Three fatal cases of diphtheria were recorded in Edinburgh; and 3 deaths from scarlet fever and 2 from diphtheria occurred in Dundee.

PAYMENTS FOR FRACTURES IN WORKHOUSES.

A.B.—No extra fee is payable to a medical officer of a workhouse for attendance on any case of fracture.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF LONDON.

A MEETING of Convocation will be held at the University Building on Monday next, January 16th, at 5 o'clock. The report of the Standing Committee will be presented and its reception moved. It has considered the present regulations respecting the examinations in the Faculty of Laws, and states that a vacancy remains in the Senate occasioned by the death of Dr. Hopkinson. Resolutions will be moved in opposition to the new Regulations for the Matriculation Examination, on the ground that they tend to discourage the study of modern languages in schools. Other resolutions will also be moved in opposition to the recent changes in the final examination for the B.A. degree, on the ground that the value of the degree has thereby been distinctly lowered. Mr. W. T. Lynn will move a resolution against the removal of the building of the University to that of any College with which the University is connected, or to any portion of the building of the Imperial Institute under the proposed conditions.

CONJOINT BOARD IN ENGLAND.

THE following gentlemen have passed the Second Examination of the Board in the subjects indicated:

Anatomy and Physiology.—A. D. Hamilton, University College, Liverpool; H. S. Tumber and H. Gardner, Firth College, Sheffield; R. H. N. Rutherford, F. H. Rudge, and F. Parlett, University College, Bristol; W. L. E. Mathews, W. E. V. Lewis, and J. J. Bekenn, Mason University College, Birmingham; A. L. Badcock, Charing Cross Hospital; J. D. Judson, Owens College, Manchester; H. E. Barrett and H. G. S. Webb, St. Mary's Hospital; T. B. Henderson, Oxford University and St. Thomas's Hospital; W. B. Vaile, London Hospital; H. M. H. Melhuish, St. Bartholomew's Hospital; C. S. Woodwark and A. K. H. Pollock, St. Bartholomew's Hospital; W. V. Wood, Cambridge University and St. Bartholomew's Hospital; L. G. Nash and A. W. Gater, Guy's Hospital; A. C. Nash, Guy's Hospital and Mr. Cooke's School of Anatomy and Physiology; E. A. Cox and J. D. Clay, King's College, London; C. E. Lakin and R. R. Lewis, Middlesex Hospital; C. Russ, H. C. Wilson, and E. E. Argles, St. Mary's Hospital; E. Prall, A. Whitehead-Smith, and B. E. Sansom, St. Thomas's Hospital; A. Beet, C. Bramhall, W. H. Gray, G. P. Mosscrop, and R. M. Dolby, London Hospital; D. Rai, Punjab University, Lahore; C. H. M. Hughes. Westminster Hospital; and F. J. Lawson, University College, London.

Physiology only.—R. McK. Skinner, of Edinburgh University and Medical School.

Thirty-one gentlemen were referred for three months in both subjects, and 1 in Anatomy only.

SOCIETY OF APOTHECARIES OF LONDON.

PRIMARY EXAMINATION, PART I.—The following candidates have passed in:

Biology.—L. Denny, Royal Free Hospital; I. Griffith, London Hospital and Cambridge; D. A. Stepney, Royal Free Hospital; M. L. Tyler, Royal Free Hospital; J. S. Ward, Sheffield.

Chemistry.—St. C. G. Ballenden, Birmingham; J. M. Gleeson, Dublin and London Hospital; W. J. H. Hepworth, Edinburgh and St. Mary's Hospital; H. M. Huggins, St. Bartholomew's Hospital; J. Jones, Manchester; F. Marriott, Edinburgh; G. B. Messenger, Liverpool.

Materia Medica and Pharmacy.—J. H. Bennett, Birmingham; R. V. Cowey, Edinburgh and St. Mary's Hospital; A. M Davis, Birmingham; R. J. Hogan; J. Jones, Manchester; F. Marriott, Edinburgh; H. E. Weston, St. George's Hospital.

PRIMARY EXAMINATION, PART II.—The following candidates have passed in:

Anatomy.—J. C. Baggs, St. Thomas's and Westminster Hospitals; J. C. O. Bradbury, Cambridge; H. B. Connell, Birmingham; A. B. Edwards, St. Bartholomew's Hospital; A. T. Greenhill, Durham; R. J. Hanbury, St. Bartholomew's Hospital; A. E. Henton, Edinburgh and St. Mary's Hospital; W. J. H. Hepworth, Edinburgh and St. Mary's Hospital; F. P. Joscelyne, Leeds; G. J. W. Keigwin, London Hospital; N. Lipscomb, St. Bartholomew's Hospital; H. Mills, St. Bartholomew's Hospital; E. Osborne, Birmingham; J. R. Pooler, Birmingham; A. F. Reardon, St. Thomas's Hospital; H. H. Serpell, St. Bartholomew's Hospital; H. G. Sewell, London Hospital; G. E. Soltau, Royal Free Hospital; H. O. Sutcliffe, Cambridge; P. L. Vawdrey, St. Bartholomew's Hospital; J. Willett, Glasgow.

Physiology.—J. C. O. Bradbury, Cambridge; P. C. Burgess, Middlesex Hospital; H. B. Connell, Birmingham; W. H. Cotton, Dublin; W. E. Cuthbertson, Bristol and Glasgow; A. T. Greenhill, Durham; R. J. Hanbury, St. Bartholomew's Hospital; A. E. Henton, Edinburgh and St. Mary's Hospital; E. Osborne, Birmingham; J. R. Pooler, Birmingham; H. G. Sewell, London Hospital; G. E. Soltau, Royal Free Hospital; P. L. Vawdrey, St. Bartholomew's Hospital; J. Willett, Glasgow.

MEDICAL NEWS.

The ninth International Congress of Ophthalmology will be held at Utrecht from August 14th to 18th, 1899.

Departmental Bacteriological Laboratories in France.—M. Emile Dubois, a member of the French Chamber of Deputies, gave notice on December 22nd of a Bill providing for the creation in each department of France of one or more bacteriological laboratories with a view to the repression and prevention of contagious diseases, particularly tuberculosis.

The Comfort of the Soldier.—We understand that, by a recent regulation, soldiers are allowed so to arrange their mattress and bedding as to afford a comfortable seat during the day in their barrack rooms. Hitherto they were obliged to sit on the hard frame of their bedsteads, or on the still harder form. The regulation is a sensible one, and we believe is the result of a recommendation by Surgeon-General O'Dwyer, Principal Medical Officer at Aldershot.

Dental Hospital of Ireland.—At a meeting of the governors of the Dental Hospital of Ireland, held in Dublin on Monday, January 9th, it was resolved to have the association incorporated and registered, and the following gentlemen were nominated to sign the articles: James G. Pollock, J.P.; William P. Geoghegan, George Noble Count Plunkett, Sir Howard Grubb, F.R.S.; J. Talbot Power, D.L.; William C. Stubbs, Charles Edward Fitzgerald, Daniel J. Cunningham, R. Theodore Stack, Arthur W. W. Baker, Daniel Corbett, D. Corbett, jun.; R. H. Moore, G. W. Yeates, Joseph Thomson, Shenstone J. Bishop, George M. P. Murray, John G. Cronyn. Mr. Murray, one of the surgeons, mentioned that 8,000 cases had been treated during the year, and of these 3,500 had been "filling" cases.

Scottish Branch of Queen Victoria's Jubilee Institute of Nurses.—The tenth annual report has just been issued. It covers the period ending October 31st, 1898, during which the Scottish Council were directly responsible for 47 nurses and probationers. Of these 42 were undergoing training either in hospital or in district work; 17 candidates entered the training home for the required month of probation before receiving hospital training; 34 nurses who had received hospital training entered the home for six months' district training; 29 nurses had, on the completion of their training, been engaged from the home by local committees. Seven new branches had been affiliated during the year. There were now 173 Queen's nurses in Scotland, working under 94 Associations. In Edinburgh and Leith during the past year 74,381 visits had been made by the nurses. £12,193 3s. 6d. had been collected in Scotland towards the Queen's Commemoration Fund to endow the Jubilee Institute for Nurses, and this had been handed over to the Scottish Council.

MEDICAL VACANCIES.

The following vacancies are announced:—

BRIDGE OF WEIR: CONSUMPTION HOSPITALS AND ORPHAN HOMES OF SCOTLAND.—Resident Medical Officer. Applications to D. Hill Jack, 141, West George Street, Glasgow.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Pathologist. Salary, 100 guineas per annum. Applications to the Secretary by February 3rd.

DERBY: DERBYSHIRE ROYAL INFIRMARY.—Assistant House Surgeon. Salary, £40 per annum, with board, residence, and washing. Applications to the Secretary by January 18th.

FARRINGDON GENERAL DISPENSARY AND LYING-IN CHARITY, 17, Bartlett's Buildings, E.C.—Resident Medical Officer. Salary, £100 per annum, with apartments and attendance. Also Honorary Dental Surgeon. Applications to the Secretary by January 21st.

JAFFRAY BRANCH OF THE GENERAL HOSPITAL, Birmingham, Gravelly Hill, near Birmingham.—Resident Medical and Surgical Officer. Salary, £150 per annum, with board, residence, and washing. Applications to the House Governor, General Hospital, Birmingham, by January 28th.

MANCHESTER: HULME DISPENSARY.—House-Surgeon. Salary, £130 per annum, with apartments, attendance, coals, and gas. Applications to the Honorary Secretary, Medical Committee.

METROPOLITAN HOSPITAL, Kingsland Road.—Assistant Surgeon; must be F.R.C.S. Eng. Applications to the Secretary by January 16th.

NEWCASTLE-ON-TYNE DISPENSARY.—Visiting Medical Assistant. Salary, £120 for first year, £150 afterwards. Applications to the Hon. Secretary, R. W. Sisson, 13, Grey Street, Newcastle-on-Tyne, by January 18th.

NORTHAMPTON GENERAL INFIRMARY.—Assistant House-Surgeon, unmarried, and not under 23 years of age. Salary, £100 per annum, with furnished apartments, board, attendance, and washing. Applications to the Secretary by January 26th.

NOTTINGHAM GENERAL HOSPITAL.—House-Physician. Salary, £100 per annum, rising to £120. Applications to the Secretary by January 31st.

OXFORD: RADCLIFFE INFIRMARY.—Surgeon. Applications to the Secretary by January 16th.

PLAISTOW: ST. MARY'S HOSPITAL.—Senior Resident Medical Officer. Salary, £80 per annum, with residence. Applications to the Secretary by January 16th.

SEAMEN'S HOSPITAL SOCIETY, Greenwich, S.E.—House-Physician for Dreadnought Hospital. Salary, £75 per annum, with board and residence. Surgeon for Dispensary, East India Dock Road. Salary, £63 per annum. Applications to the Secretary by January 23rd.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea, S.W.—Ophthalmic Surgeon. Applications to the Secretary by January 28th.

WEST BROMWICH DISTRICT HOSPITAL.—Resident Assistant House-Surgeon. Appointment for six months. Gratuity, £20. Board, lodging, and washing provided. Applications to the Secretary.

WEST DERBY UNION.—Resident Assistant Medical Officer for the Workhouse, Walton-on-the-Hill, Liverpool. Salary, £100 per annum, with first class rations, apartments, etc. Applications to the Union Clerk, Brougham Terrace, West Derby Union, Liverpool, by January 19th.

MEDICAL APPOINTMENTS.

Campbell, A. G. L., appointed Medical Officer for the Eighth District of the Newmarket Union.

Campkin, P. S., L.D.S.Eng., appointed Dental House-Surgeon at Guy's Hospital.

Davies-Jones, D., M.B., M.S.Edin., appointed Surgeon to the Lower Duffryn Colliery, Mountain Ash.

Gray, Sarah, L.R.C.P.& S.Edin., L.F.P.S.Glasg., appointed Assistant Surgeon to the Nottingham Hospital for Women.

Hodges, J., M.R.C.S.Eng., appointed Medical Officer for the Edmonton District of the Edmonton Union, *vice* C. D. Green, M.D.Lond.

Knox, J. E., M.B., C.M.Edin., appointed Medical Officer for the East and West Molesey Urban District, *vice* J. K. Knox, M.B., deceased.

Mason, E. N., L.D.S.Eng., appointed Dental House-Surgeon at Guy's Hospital.

Pershouse, Frank, M.R.C.S., L.R.C.P., appointed Medical Officer for the Bradwell District of the Maldon Union, *vice* F. S. D. Hogg, M.R.C.S., L.R.C.P. (correction).

Plumley, A. G. G., M.B.Lond., M.R.C.S., L.R.C.P., L.D.S.Eng., appointed Dental House-Surgeon at Guy's Hospital.

Pochin, F. L., M.B.Edin., appointed Medical Officer for the Raynham District of the Walsingham Union.

Rattray, Alex. M., M.B., C.M.Edin., appointed Assistant Medical Officer to the City of Newcastle Asylum, Gosforth.

Ross, J. Stuart, M.B., B.Ch.Vict., appointed House-Surgeon and Resident Obstetric Assistant Surgeon to St. Mary's Hospital, Manchester, *vice* W. K. Walls, M.B.Lond.

Smith, A. C. F., L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg., appointed Medical Officer for the Northern District of the Devonport Union.

Smith, C. C., M.B., appointed Medical Officer for the Redditch District of the Bromsgrove Union, *vice* W. Smith, M.R.C.S.Eng., deceased.

Thomson, H. Campbell, M.D.Lond., M.R.C.P., appointed Pathologist and Curator of the Museum to the Middlesex Hospital.

Walls, W. K., M.B.Lond., M.R.C.S., appointed Obstetric Assistant Surgeon to St. Mary's Hospital, Manchester.

DIARY FOR NEXT WEEK.

MONDAY.

West London Post-Graduate Course, West London Hospital, W., 5 p.m.—Mr. Swinford Edwards: The Methods of Examining the Rectum and Bladder (Lecture I).

TUESDAY.

Pathological Society of London, 8.30 p.m.—Mr. A. Barker: Final Sequel to a Case already reported of Removal of Cystic Disease of a Supposed Accessory Thyroid (illustrated by lantern slides). Mr. T. Carwardine: Lantern Photographs of a Case of Molluscum Fibrosum with Neuroma of the Brachial Plexus. Dr. H. P. Potter: Crushing Fracture of Cervical Spine. Dr. R. Crawford: Cystic Suprarenal Bodies. Dr. Rolleston: Cyst in Suprarenal Body. Dr. Morley Fletcher: Tuberculous Cholangitis. Mr. H. Betham Robinson: Multilocular Tumour from Inguinal Region in a Female. Mr. C. F. Beadles: Lesion of Pancreas with Fat Necrosis. Card Specimens: Mr. Carwardine, Mr. Beadles.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C., 3.30 p.m.—Sir W. Gowers: Epilepsy.

West End Hospital for Diseases of the Nervous System, 73, Welbeck Street, 4 p.m.—Dr. T. D. Savill: Cases of Infantile Paralysis.

Chelsea Clinical Society, the Parish Hall, Pavilion Road, Sloane Square, 8.30 p.m.—Dr. J. H. Dauber: A Plea for Greater Attention to Asepsis in Hospital and Private Practice. Dr. C. C. Gibbes: Pathology of Mitral Stenosis. Dr. J. Blumfeld: Administration of Ether to Infants and Young Children.

WEDNESDAY.

Royal Meteorological Society, 25, Great George Street, Westminster, S.W., 7.45 p.m.—Annual General Meeting. Report of Council. Election of Officers and Council, and Address by the President.

Royal Microscopical Society, 20, Hanover Square, W., 8 p.m.—Annual Address by President.

North-West London Clinical Society, North-West London Hospital, Kentish Town Road, 8.30 p.m.—Monthly Demonstration of Clinical Cases.

West London Post-Graduate Course, West London Hospital, W., 5 p.m.—Mr. Swinford Edwards: The Methods of Examining the Rectum and Bladder (Lecture II).

THURSDAY.

Harveian Society of London, 8.30 p.m.—Annual General Meeting. Election of Officers. Presidential Address. Annual Conversazione.

London Temperance Hospital, 2 p.m.—Dr. Soltau Fenwick: Clinical and Pathological Demonstrations Senior Students.

Charing Cross Hospital, Post-Graduate Course, 4 p.m.—Mr. Boyd: Demonstration of Surgical Cases.

FRIDAY.

Epidemiological Society of London, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Dr. Bruce Low: Epidemic Cerebro-Spinal Meningitis.

Society of Anæsthetists, 20, Hanover Square, W., 8.30 p.m.—Continuation of Adjourned Discussion on Selection of an Anæsthetic.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to insure insertion in the current issue.

MARRIAGE.

Hastings—Mundella.—On January 5th, at St. Mark's, Regent's Park, N.W., by the Rev. J. Sparrow Simpson, Edwin Birchall Hastings, youngest son of the late William Hastings, of Huddersfield, and Theresa, second daughter of the late John Mundella of Nottingham.

DEATHS.

Armstrong.—On the 5th inst., suddenly, at 3, Bentinck Villas, Newcastle-upon-Tyne, Mary, dearly beloved wife of Henry E. Armstrong, Medical Officer of Health.

Paxton.—On January 3rd, 1899, at Norham-on-Tweed, Henry Kenneth Paxton, M.B., Ch.B.Edin., last surviving son of Lieut.-Colonel J. Paxton, M.D., R.A.M.C., aged 2 years.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

Cancer, Brompton (Free). *Attendances.*—Daily, 2. *Operations.*—Tu. W. F., 2.

Central London Ophthalmic. *Attendances.*—Daily, 1. *Operations.*—Daily.

Central London Throat, Nose, and Ear. *Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—I.p., Tu., 2.30; o.p., F., 2.

Charing Cross. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.45; Dental, M., 9: Throat and Ear, F., 9.30. *Operations.*—Th. F. S., 3.

Chelsea Hospital for Women. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

City Orthopædic. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.

East London Hospital for Children. *Operations.*—M. W. Th. F., 2.

Great Northern Central. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F., 2.30; Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

Guy's. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30: Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 2. *Operations.*—Tu. F., 1.30; (Ophthalmic), M., 1.30; Th., 2.

Hospital for Women, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

King's College. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, daily, 2; o.p., daily, 1.30; Eye, M. W. Th., 1.30: Ear, Th., 2.30; Throat, M., 1.30; F., 2; Dental, M. Th., 10; Skin, W., 1.30. *Operations.*—W. Th. F., 2.

London. *Attendances.*—Medical, daily, i.p., 2; o.p., 1.30; Surgical, daily, 1.30 and 2; Obstetric, M. Tu. Th. F., 2; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, W., 9; Skin, Th., 9; Dental, Tu., 9. *Operations.*—Daily, 2.

London Temperance. *Attendances.*—Medical, M. Tu. W. Th. F., 1.30; Surgical, M. Th., 1.30. *Operations.*—M. Th., 4.30.

London Throat, Great Portland Street. *Attendances.*—Daily, 2; Tu. F., 6. *Operations.*—Daily, 2.

Metropolitan. *Attendances.*—Medical and Surgical, daily, 2; S., 9; Obstetric, W., 2; Eye, W., 2; Throat and Ear, Th., 2; Dental, Tu. Th. S., 9. *Operations.*—Tu. W., 2.30; Th., 4.

Middlesex. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., 1.30; o.p., M., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu. F., 9; Skin, Tu., 4; Th., 9.30; Dental, M. F., 9.30; W., 9. *Operations.*—Daily, 1.30.

National Orthopædic. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

New Hospital for Women. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30. *Operations.*—Tu. F., 9.

North-West London. *Attendances.*—Medical, daily, exc. S., 2; S., 10; Surgical, daily, exc. W., 2; W., 10; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

Royal Ear, Frith Street. *Attendances.*—M. W. F., 3; Tu. F., 9.30 and 7.30. *Operations.*—Tu., 3.

Royal Eye, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

Royal Free. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, W., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

Royal London Ophthalmic. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

Royal Orthopædic. *Attendances.*—Daily, 2. *Operations.*—M., 2.

Royal Westminster Ophthalmic. *Attendances.*—Daily, 1. *Operations.*—Daily, 2.

St. Bartholomew's. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. W. F., 2; o.p., W. S., 9; Eye, M. Tu. W. Th. S., 2; o.p., M. Th., 9; W. S., 2.30; Ear, Tu. F. 2; Skin, Tu., 9; Larynx, Tu. F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9; Electrical, M. Tu. Th. F., 1.30. *Operations.*—Daily, 1.30; (Ophthalmic), Tu. F. 2; Abdominal Section for Ovariotomy, F., 2.

St. George's. *Attendances.*—Medical and Surgical, daily; i.p., 1; o.p., 12; Obstetric, i.p., Tu. F. 1.45; o.p., M. Tu., 2.30; Eye, W. S., 1.30; Ear, Tu., 2; Skin, W., 2.45; Throat, F., 2; Orthopædic, F., 12; Dental, M. Tu. F., S., 12. *Operations.*—Daily, 1; Ophthalmic, M., 1; Dental, Th., 9.

St. Mark's. *Attendances.*—Fistula and Diseases of the Rectum, males, S., 2; females, W., 9.30. *Operations.*—M., 9; Tu., 2.30.

St. Mary's. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 12.45; Obstetric, Tu., F., 1.45; o.p., M. Th., 1: Eye, Tu. F., 9; Ear, M. Th., 9; Throat, Tu. F., 3; Skin, M. Th., 9; Dental, W. S., 9; Electro-Therapeutics, M. Th., 2.30; Children's Medical, Tu. F., 9. *Operations.*—M., 2.30: Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

St. Peter's. *Attendances.*—M., 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

St. Thomas's. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F. 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Th., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. F., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

Samaritan Free for Women and Children. *Attendances.*—Daily, 1.30. *Operations.*—Gynæcological, M., 2; W., 2.30.

Throat, Golden Square. *Attendances.*—Daily, 1.30; Tu, F., 6.30. *Operations.*—Daily, exc. M., 10.

University College. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. F., 1.30; Eye, M. W., 1.30; Ear, M. Th., 9; Skin, Tu. F., 2; Throat, M. Th., 9; Dental, Tu. F., 9.30. *Operations.*—Tu. W. Th., 2.

West London. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th., 2; Ear, Tu., 2; S., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, M. Th., 2; Skin, M. F., 2; Throat and Nose, Tu., 2; S., 10. *Operations.*—Daily, about 2.30; F., 10.

Westminster. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, Tu. F., 9.30; Ear, Tu., 1.30; Skin, W., 1.30; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications for the Current Week's Journal should reach the Office not Later than Midday on Wednesday. Telegrams can be Received on Thursday Morning.

Communications respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the Journal, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and **LETTERS** *forwarded for publication are understood to be offered to the* British Medical Journal *alone, unless the contrary be stated.*

Authors desiring reprints of their articles published in the British Medical Journal are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

Correspondents who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

Correspondents not answered are requested to look at the Notices to Correspondents of the following week.

Manuscripts forwarded to the Office of this Journal cannot under any Circumstances be Returned.

In order to avoid delay, it is particularly requested that ALL letters on the editorial business of the Journal be addressed to the Editor at the Office of the Journal, and not at his private house.

Telegraphic Address.—The telegraphic address of the EDITOR of the British Medical Journal is *Aitiology, London.* The telegraphic address of the MANAGER of the British Medical Journal is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are directed will be found under their respective headings.*

QUERIES.

Cantab (Midlands) writes that a young milliner, aged 25, suffers from asthma of the bronchial type, and he desires to hear of places recommended for such cases, and of any convalescent home or institution where she could be taken. He believes a mild, moist, sheltered climate would be best.

Student (Canada) asks if any of our readers would kindly give a rule for making deductions in retinoscopy when using concave mirrors of different focal lengths—say 14 cm., 25 cm., and 35 cm.; and when seated at different distances from the patient—at one metre, one-half, and one-third of a metre. In *Thorington's Retinoscopy* there is such a rule which is applicable only to plane mirrors.

Home for Adult Epileptic.

B.A. M.B.(London) desires to hear of a home or "colony" for epileptics into which a sturdy youth, aged 23, whose occupation is that of a cow keeper, could hope to obtain admission. He is entirely dependent on his own labour, but is distinctly not a case for the workhouse.

Fee for Emergency Attendance.

Dubious writes: I was called to see a well-to-do patient, who was being attended by another medical man living at some distance. The patient had been taken suddenly worse, and could not wait till her ordinary doctor could be obtained. Can I claim a fee, and if so, should I apply to the patient or the doctor?

⁎ If the usual medical attendant is a personal friend, "Dubious" should write to him, explain the facts, and then act after taking counsel together. If not a personal friend, it would be an act of courtesy on the part of our correspondent to write to the usual attendant. Then under the circumstances related he would be justified himself in applying to the patient for a fee.

Treatment of Chronic Diarrhœa.

W. M. asks for suggestions as to treatment for a case of a man, aged 40, who on and off for six years has had early in the morning to get out of bed to pass a loose motion preceded by a griping pain over the sigmoid colon. After each meal the same phenomenon occurs. The motions are merely loose and watery, not irritating, showing nothing special. He is temperate. There are no gastric symptoms, and nothing abnormal is disclosed by rectal or abdominal examination. Alcohol, except weak whisky and water, has been stopped. Small doses of liq. arsenicalis before meals have been tried, and at various times pil. cupri sulph. opii omni nocte, bismuth, pepsin, soda, and various bitters.

Headache Caused by Erythrol Tetranitrate.

R.A.M.C. writes: A patient, aged 37, with high arterial tension, but without much in the way of symptoms at present, was given, at 8.30 P.M., two ½ gr. tabloids of Burroughs and Wellcome's erythrol tetranitrate. In about half an hour severe headache set in across the forehead and top of the head, with rapid throbbing action of the heart, the temporal arteries becoming visible. The headache lasted through the night, preventing sleep, and was not entirely gone for about thirty-six hours. A feeling of great *malaise* was also left. After four days the patient took one ½ gr. tabloid at bedtime. During the night he awoke with the same kind of headache as before, though less severe, and it lasted through the next day. The headache appears to be of an unusually painful character, and the patient dreads taking any more of the drug. He says he feels very ill all the next day after taking the medicine.

⁎ We are indebted to Professor Bradbury, of Cambridge, for the following answer to this question: "The symptoms described are undoubtedly due to the erythrol tetranitrate, but they are rarely met with in such a severe form. Slight headache is not infrequent, but violent pulsation of the temporal arteries is rare. Caffeine might relieve the headache, but there is no proof of its efficacy in this direction. As the patient mentioned seems to possess an extraordinary susceptibility to the erythrol tetranitrate, a smaller dose, say $\frac{1}{10}$ gr., would probably produce the desired result without untoward effects; or as headache less frequently follows the administration of sodium nitrite than the organic nitrates, small doses of this (¼ to ½ gr.), frequently repeated, might be tried. Perhaps a mercurial, followed by a saline aperient, would be followed by better results than either of these vaso-dilators.

ANSWERS.

X.Y.Z.—There does not appear to be any evidence that the gentleman, whose name is given the prominence to which our correspondent refers, was in any way privy to the publication of the paragraph.

Medical Students' Journals.

C. S.—There are several students' journals. Guy's has the *Guy's Hospital Gazette*, and, in a lighter vein, the *Guyoscope*. The London, the Middlesex, St. George's, and St. Mary's have each a journal concerning itself with the doings in the hospital and school.

Monthly Nurse's Engagement.

A. Z.—The nurse is undoubtedly entitled to be paid for all the time during which she has stayed in the patient's house; for, though she has done nothing, she has been prevented from doing other work for herself. If it be the fact that the nurse was engaged for the middle of

November, she should be paid for the time from that date; but if so, she surely would not have made another engagement for that date, and if offered a casual one, she should have communicated with the patient.

IRISH DISPENSARY MEDICAL OFFICERS.

MEMBER B. M. ASSOC.—(1) A dispensary committee has no power to give permission to reside outside the district. Such permission would be contrary to the regulations of the Local Government Board, therefore illegal; therefore null and void. However, it is not usual for the Local Government Board to take any action in such cases unless they are brought under its notice officially, but if any person chose to complain, the medical officer would be compelled to reside in his district. The Act of last session provides that any officer who may be, through the operation of the Act, deprived of his emoluments, in whole or in part, shall be entitled to compensation, but we do not see how permission to reside outside a district being illegal could be held to be part of the emoluments as an officer of the guardians. It is therefore highly improbable that an action would lie against individual members of the Dispensary Committee who elected our correspondent, unless the permission to live outside the district were held out as an inducement in the advertisement for a medical officer. (2) "The holding of an office of profit under the Board of Guardians or the district council is not a disqualification for a seat on the county council." That is the legal opinion which has been obtained; but whether the judges would hold the same view remains to be proved.

NOTES, LETTERS, Etc.

A CORRECTION.—In the paragraph on the Bolton and District Association of Colliery Surgeons it should have been stated that the rate of payment for attendance upon accident cases is now 15s. a *case* instead of 2s. 6d. a *head* per annum as formerly.

HOSPITAL OF ST. FRANCIS.

DR. LEWIS A. R. WALLACE (Norfolk Crescent, W.) writes: My attention has been drawn to the fact that my name appears in the new *Medical Directory* among the staff of the Hospital of St. Francis. I am sorry this is so, as I resigned the post soon after my election, finding that my views were not in agreement with those of the supporters of the hospital.

PHOSPHORUS NECROSIS OF THE JAW.

OWING to an accidental delay of a proof certain slight errors have passed uncorrected in Professor Stockman's paper on this subject published in the BRITISH MEDICAL JOURNAL of January 7th: Lorimer should be Lorinser; von Bibra and Geist published a joint not a separate work, as the comma after the first name might lead the reader to think.

"VACCINATION RASH."

DR. W. G. DUNWOODY (Ely) writes: Will any of your readers inform me what is "vaccination rash"? That is the diagnosis written on a patient's card of one of the London hospitals. The patient, a boy aged 5, was vaccinated when three months old. The mother states the child has suffered at intervals with this rash ever since he was vaccinated. The lesion is undoubtedly eczema, but on my stating so, the lady produced the card above referred to, and I may mention *en passant* the treatment set forth on the card was "Ung. hydrarg. ammon. dil.," which, I think, speaks for itself.

Now, sir, one would think in these times there is enough opposition to vaccination, without our own profession lending objectors a helping hand. I ask again, What is a "vaccination rash," and what possible justification is there for—first, making such a diagnosis after an interval of four years; and, secondly, making it public property?

ERYTHROL TETRANITRATE: A CAUTION.

MR. JOHN BAIRSTOW (Joseph Turner and Co., Limited, Chemical Works, Queen's Ferry, Flintshire) writes: We notice with regret the account, in the BRITISH MEDICAL JOURNAL of January 7th, of an accident caused by erythrol tetranitrate being inadvertently thrown into a fire. In justice to ourselves you will, perhaps, allow us to explain that all samples of this drug are sent out with full instructions, printed in red ink, respecting precautions to be observed in handling it, and also full particulars as to dose. All that is required is that the particulars shall be read. The name of the drug itself clearly indicates its chemical and therefore its explosive character; but, in order that no similar mistake may occur again, we shall in future also label each sample with the word "explosive," and dosage.

THE INVENTION OF SPECTACLES.

MR ARTHUR DECK (Cambridge) writes: Upon reading your correspondence *re* invention of spectacles I should like to draw attention to a painting (Spanish school, attributed to Murillo) in the Fitzwilliam Museum, Cambridge, representing St. John the Baptist with the scribes and Pharisees, where one is represented, I presume the scribe, wearing a pair of spectacles of a very old type—namely, thick tortoiseshell frames. Of course it is a freak of the painter, who never really supposed the disciples of old to have used these aids to reading or writing.

SYPHILIS IN THE ARMY.

DR. A. G. NEWELL (Gosport) writes: I have tried the intramuscular injections in connection with soldiers, and cannot see that the method has any advantage over the other methods so far as mere treatment is concerned; but so far as the best treatment for use in the army is concerned, in the absence of a proper trial of the "inunction method," it must be given the palm. The view of one man cannot be held as conclusive evidence that that method is the best, or that another method may not prove equally satisfactory. In reply to Dr. Oppenheimer, I can only say that the cases where the nature of the primary sore is doubtful, are by no means "very rare." I have seen sores which I defy any man to have given a definite diagnosis on; and so, in such cases (and I would add in all cases with the slightest doubt) it would be scientific and wise to defer active treatment till the secondaries set in. I cannot agree with him that the Hunterian chancre is merely local, and that the virus has not gone past the nearest glands. The chancre is only the first local manifestation of a constitutional disease, and if he admits that the virus is in the lymph channel between the sore and the nearest gland, I do not see that he has any proof that it does not circulate in the blood at the same time. If his view were true, then the immediate destruction of all hard sores by cauterisation should eradicate constitutional syphilis.

GREEN STOOLS IN ENTERIC FEVER.

DR. F. W. FORBES ROSS (Gower Street, W.C.) writes: In the BRITISH MEDICAL JOURNAL of December 31st, 1898, you publish an annotation on the above (page 1947) with reference to an article by Drs. Garrod, Drysdale, and the late lamented Professor Kanthack. May I be permitted to point out that in a monograph (*Intestinal Intoxication in Infants.* London: Rebman and Co., p. 31 *et seq* on Bile) by myself, published early in 1897, after personal (chemical and bacteriological) experimentation, I arrived by identical means at an exactly identical conclusion as the above experimenters?

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BOOKS, ETC., RECEIVED.

A Textbook of Physiological Chemistry. By O. Hammarsten. Authorised Translation from the Third German Edition by J. A. Mandell. Second Edition. New York: J. Wiley and Sons. London: Chapman and Hall. 1898.

Glasgow Hospital Reports. Edited by G. S. Middleton, M.A., M.D., F.F.P.S.G., and H. Rutherford, M.A., M.B., C.M., F.F.P.S.G. Vol. I. Glasgow: J. Maclehose and Sons. 1898.

Guy's Hospital Reports. Vol. 53. Edited by E. C. Perry, M.A., M.D., and W. H. A. Jacobson, M.A., M.Ch. London: J. and A. Churchill. 1898.

Bubonic Plague at Hardwar. By J. C. White, M.D., Captain I.M.S. Allahabad: "Pioneer" Press. 1898. R. 1.

The Power of Nature in Disease. By J. W. Anderson, M.D. Edinburgh: W. F. Clay. 1899. 1s. 6d.

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A CLINICAL LECTURE
ON
PULMONARY ABSCESS.

Delivered at the Hospital for Consumption and Diseases of the Chest, Brompton,

By RICKMAN J. GODLEE, M.S., F.R.C.S.,
Surgeon to the Hospital; Surgeon to University College Hospital; and Surgeon-in-Ordinary to Her Majesty's Household.

CAUSES OF PULMONARY ABSCESS.

IT is not exactly easy to say what is meant by *abscess* of the lung. In other parts of the body we do not meet with the same difficulty. "A circumscribed collection of pus" answers well enough as a definition. It will include all possible conditions except the very chronic and very rare "lymph abscess" in which the contents are not purulent, but a clear fluid. But in the lung it may be said to be either too inclusive or not inclusive enough; it hardly includes bronchiectasis, which, from the surgical point of view, merits, at all events, discussion in this connection, and it certainly does include some tuberculous cavities which, from the medical point of view, should scarcely be included in the category.

Dr. J. Kingston Fowler, in a work I ought perhaps hardly to refer to, says that an abscess may be met in connection with:

1. Pneumonia followed by necrosis and softening of a considerable area of the consolidated lung.
2. Pulmonary tuberculosis, when a large carious area undergoes rapid disintegration.
3. Chronic non-tuberculous cavities.
4. Bronchiectasis, either with or without ulcerative changes in the bronchial walls and surrounding tissues.
5. Suppuration of a hydatid cyst.
6. Softening of a pyæmic infarction.
7. Pulmonary embolism followed by softening.
8. Perforation of the lung by a malignant growth in the œsophagus.
9. Suppuration of bronchial glands extending into the lung.
10. Empyema rupturing into the lung.
11. Perforation of the lung by a mediastinal abscess.
12. Perforation by an abscess extending through the diaphragm.
13. Injuries of the lung.

DIAGNOSIS.

It is obviously not my business, even if I were able to do so, to say anything about the physical diagnosis of an abscess in the lung. Theoretically of course, if of considerable size, it should give the signs of a cavity—that is, if there be a communication with a bronchus of sufficient size to allow of the entrance and egress of air; but even this latter condition is by no means always present, and, if it be present, it is in many cases so frequently plugged with the discharge that abnormal sounds are only occasionally produced in the cavity. Sometimes no doubt it is possible to be pretty sure not only that an abscess exists, but to point with confidence to its situation. But physicians of the widest experience will tell you that more often, possibly because of its deep situation, possibly because of its small size, and possibly because of the condition I have just referred to, the localisation is a matter of absolute impossibility, and the diagnosis depends partly upon the history of the case and partly upon the character of the expectoration.

But even though the history be known and the expectoration be obviously from a cavity, it is often out of the question to say whether the cavity is in the lung or outside it. An abscess of the liver which has opened almost directly into a large bronchus, an abscess connected with caries of the spine, or a mediastinal gland, or a pyopericardium, a diaphragmatic empyema, or one between the lobes of the lung or between the lung and the pericardium, and numerous other conditions that might be named may supply all or nearly all the signs of, and be easily mistaken for, abscess of the lung. It is obvious therefore that if the surgeon be asked to interfere in a doubtful case he must keep a very open mind and go very cautiously to work. It is wise for him before he begins his investigations to consider the possibility of the matter coming from any one of the regions from which an abscess has been known to burst into the lung.

LOCALISATION OF THE ABSCESS BY EXPLORATORY PUNCTURE.

What he will be first called upon to do is to puncture the lung in order to see if he can hit the suspected abscess. The choice of an instrument for this purpose is a matter of great importance. It is not justifiable to use a simple exploring trocar, because it is not possible in any case to be sure of the presence of pleural adhesions, and, if these be not present, it is probable that, either in entering it or withdrawing it, some air will be allowed to enter the pleural cavity. This has at least three disadvantages:

1. It modifies the physical signs.
2. It allows the lung to fall away from the chest wall, and therefore renders any further immediate operation difficult and dangerous.
3. If the abscess has been reached by the cannula, and the contents be septic, the chance of infection of the pleura is very great indeed.

The hypodermic syringe is clearly a most unsatisfactory instrument for this purpose, and even the large forms of simple syringe are, in my opinion, very unsuitable; the needle is very apt to become plugged, and a negative result is therefore never conclusive.

Far the best instrument is the bottle aspirator, the puncture being made by a cannula and trocar attached to it—not by a simple pointed needle. The cannula should not be too large, and should have a second opening at the side near the point. It must not be forgotten that, in puncturing the lung, it is almost certain that the trocar will pass through vessels of considerable size, and very probable that it will perforate a bronchus either directly before or immediately after the passage through the vessel. It does not follow that this will produce hæmoptysis, but it is not at all unlikely that it may do so. Fortunately this is seldom serious from the amount of blood lost; but if the patient be very deeply anæsthetised even a small amount may put him into a condition of great peril, which is one of the reasons why, in operating on this class of cases, the chloroform (I say chloroform advisedly) should always be administered very sparingly, the other being that a fit of coughing may lead to the escape of a large amount of pus into the trachea and larynx.

VARIETIES OF EXPECTORATION.

Before proceeding to tap the chest the surgeon is not only justified in examining the expectoration, but is bound to try to form an opinion for himself as to its probable source. It may well be that he is more intimately acquainted with the varieties of pus met with in different abscesses than his medical colleague, and thus be enabled in this way to throw new light upon the case.

It may, therefore, be worth while to pause for a few moments to consider the varieties of expectoration that may be met with.

It must in the first place be observed that the material that is expelled from the mouth is never quite the same as that which leaves the cavity in which it has been formed. It always receives some addition from the air tubes and the mouth, and occasionally also from the stomach. I have, for example, had sent to me for observation the sputum from a case of a recently ruptured empyema, which consisted in large part of vomited matters, and had the characteristic smell of the contents of the stomach, though the naked-eye appearance was that of pus. The amount of addition which the expectoration receives *in transitu* depends partly upon the state of the mucous membrane of the air passages, but chiefly upon the amount of effort involved in the act of coughing, and in the amount of saliva secreted by the patient. If the cough is easy and the secretion from the abscess large, the only change that is effected is that the pus is arranged into more or less distinct pellets coated with mucus, which possibly may contain bubbles of air. But if there be much difficulty in bringing it up, the greater part of that which leaves the mouth may be more or less aërated mucus or saliva. I have seen a patient with a single bronchiectatic cavity, that only held an ounce or two, expectorate a good deal more than a pint regularly every twenty-four hours. Indeed the amount of the expectoration is no guide in estimating the magnitude or smallness of the cavity.

LESS COMMON VARIETIES OF EXPECTORATION.

There are certain special forms of expectoration from cases in which the suspicion of pulmonary abscess is likely to arise that we may deal with first.

1. *Bile-stained.*—Unless the patient is jaundiced this must

necessarily come from the liver, and suggests either hepatic abscess or hydatid of the liver. It is not, in my experience, common, but I have seen it in both the conditions named. The yellow or green expectoration met with in some cases of pneumonia is hardly likely to be confused with it.

2. *Hydatid Cysts.*—Fragments of hydatid cyst mixed with the pus will explain, of course, a part of the pathology of the case; but will not necessarily help to localise the disease. It is important to remember that hydatids are often multiple, and that it does not follow that the cyst you can localise (say in the liver) is the source of the expectoration, which may be situated in the lung or elsewhere.

3. *Actinomycosis.*—The small yellow bodies met with in this disease may occur in large quantities in the expectoration, and yet escape detection simply because they are not looked for. We have accumulating evidence that the clinical and naked-eye appearance of this disease may very closely simulate not only empyema and pulmonary abscess, but pulmonary tuberculosis. I would therefore urge the minute inspection of the sputa in all doubtful cases. If once the small bodies said to look like grains of iodoform are seen, and placed under the microscope, the diagnosis is cleared up and the patient most likely saved from a useless operation.

4. *Chocolate-coloured Expectoration.*—This consists of pellets of pus more or less darkly stained with blood, and often containing a good deal of mucus either intimately mixed with the pus or in streaks. The blood is generally uniformly diffused through the pus. Sometimes, however, it is in bright red streaks, and often the individual pellets vary much in the amount of staining, some being almost free from, others consisting almost entirely of, blood. This expectoration in nine cases out of ten, in my experience, comes from the liver; but it must not be forgotten that my experience only includes cases of real or suspected pulmonary abscess. It is generally derived from a hepatic abscess, but it may come from a hydatid. It may also, however, come from the abscess of lung which so often follows hepatic abscess, and from the abscess which is caused by the breaking down of a hydatid of the lung. Presumably, therefore, it may be met with in some other condition, but I have myself only seen it in those I have referred to. Chocolate-coloured pus should be examined while warm for the amœba coli. If this be discovered, the probability of the presence of a hepatic abscess is very great.

5. *Dark brown and very offensive expectoration* which does not bear any resemblance to pus is met with in some cases of gangrene occurring in the course of acute pneumonia. I am obliged to mention it here because in such cases the surgeon may have to open the cavity, which can hardly be called an abscess, resulting from the gangrenous process.

6. *Hairs and Epidermic Fragments.*—If patients say they have expectorated hairs the story should not be received with incredulity. There are mediastinal dermoids that may rupture into the lung or pleura and cause pulmonary abscess or empyema.

7. *Expectoration from the Mouth and Nasopharynx.*—In patients with chronic inflammation of the gums a highly offensive expectoration may be produced which separates into an upper clear or bloodstained layer and an opaque white or yellow layer looking exactly like pus, but under the microscope showing only squamous epithelium. Pus may also come from the antrum or frontal sinus or from diseased or dead bone in the nose or jaws, or at the base of the skull, and if pulmonary signs be also present much confusion may result. The possibility of the presence of œsophageal pouches must not be forgotten.

8. *Other Uncommon Conditions.*—This does not exhaust the list of the peculiar materials that may be thrown up from pulmonary abscesses, but the cases are too few to require headings to themselves.

Portions of bone and other foreign bodies that have "gone the wrong way"; sequestra from ribs or vertebræ; calcareous plates from tuberculous empyemata or glands; or food which has escaped through an opening in the œsophagus, are the sort of things to which I am referring. In a case to which reference will be subsequently made, large black masses having a most offensive odour came from an apex cavity of doubtful origin. They were made up almost completely of huge apparently non-pathogenic, bacteria. When it is recollected that any abscess below the diaphragm may burst through it, and subsequently open into the lung, it is obvious that many other unexpected materials (the contents of the intestine, for example), may conceivably be found in the expectorated matters. The possibility of the patient being a malingerer must also be borne in mind.

MORE COMMON VARIETIES OF EXPECTORATION.

We come finally to the more common products of pulmonary abscess where the essential thing is pus. The pus is arranged in more or less distinct nummular pellets which sometimes remain distinct when they are placed together in a cup, and sometimes run together. They are themselves non-aërated, but are enclosed in or mixed up with a variable amount of more or less aërated mucus and saliva. The pus varies much in colour, consistence, and smell. It is often yellow or green, occasionally almost white, and while there is sometimes no smell or only a sickly odour, it may be in the highest degree offensive.

Unfortunately sputa which would answer to this rather inclusive description may be met with in almost any form of abscess of the lung, and also—to add to the confusion—in cases in which there is a general breaking down of a portion of lung without any large resulting cavity.

But there are certain distinctions that may be drawn which will aid in the diagnosis.

A. *Separation into Layers.*—If the expectoration separates into three or two layers it suggests (but does not prove) the existence of bronchiectasis. Dr. Fowler says:

> After standing for about twenty-four hours it settles into either two or more, often three, well defined strata—an upper thin, brownish, frothy mucoid layer; a middle layer of greenish fluid, either clear or containing hanging threads; and a thick lower layer of purulent material which forms a grey opaque mass. Where only two layers are present, the upper is more or less stringy, or it may be clear, the solid matters sinking to the bottom.

B. *The Presence of Blood.*—I must again remind you that I am only speaking of pulmonary abscess, or what may be confused with it. I have already referred to the appearance of the blood in pus that comes from the liver. If there be pretty constant—or at all events frequent—streaking of the sputa with blood, the question of tubercle must be entertained. But the possibility of a new growth being at the bottom of the case must be borne in mind. In cases of bronchiectasis there are often as the disease advances occasional and severe hæmoptyses. In cases of empyema the story often is that hæmorrhage occurred once when the matter first burst into the lung, or, if the hæmoptysis was repeated, it only happened when the opening into the lung was re-established after a temporary closure. Prune-juice expectoration sometimes occurs in cases of tumour. Lastly, it must be remembered that both mediastinal abscesses and aneurysms may be confused with pulmonary abscesses, and that either of them may give rise to sudden and fatal arterial hæmorrhage from a large artery.

C. *Smell.*—It requires practice to recognise the characteristic smell of the expectoration in gangrene of the lung, bronchiectasis, etc., and I doubt if anybody ever acquires enough knowledge to make an opinion derived from the sense of smell of much value. But there are certain points worth remembering. Gangrene of the lung gives at first a very foul, earthy sort of stink, and it becomes more and more offensive as the case progresses. In bronchiectasis the expectoration is at first odourless, or at most has a faint sickly smell. The length of time that elapses before it begins to stink varies much in different cases. It then usually becomes very foul, and has a peculiar sickly character. The chocolate-coloured pus from liver abscesses, etc., seldom has more than a faint disagreeable smell. That from tuberculous cavities is as a rule still less offensive. The breaking down of a pneumonic patch of lung sometimes causes offensive expectoration, sometimes not.

D. *Microscopic examination* will, of course, not be neglected. I need not dwell upon the importance of the discovery of elastic tissue, liver cells, tubercle, and other micro-organisms or of animal or vegetable parasites.

NATURE AND POSITION OF ABSCESS.

Now let us consider the varieties in shape and position the abscess may present, and, adopting the same course as in dealing with the last subject, let us first clear out of the way some of the more peculiar conditions.

1. *Bronchiectasis*, in whatever way it may arise, consists essentially of a dilatation of the bronchial tubes, which results in a collection of fusiform or saccular cavities of greater or less size, occupying a part or parts of the lung which are approached by one or more bronchi, and communicating by means of the parent stem with one another. If the process have gone no further this completes the description, if it be added that they are lined with mucous membrane. If, however, as sometimes happens, ulceration has occurred, lateral communications may have been formed between contiguous cavities, and the interior is no longer quite smooth but is formed by the lung tissue itself, more or less modified by inflammatory processes. It need not be said that these cavities offer a most unpromising field for surgery, because unless the part of the lung affected be very localised, it is extremely unlikely that any cavity, which by good luck, may be reached will do more than drain a fraction of the complicated system of dilated bronchi. If the finger enters one of these cavities, the sensation imparted to it is very characteristic; it is like passing it into the finger of a very smooth glove.

2. *Disintegration of a Pneumonic Lobe whether Tuberculous or Non-Tuberculous.*—Here there is probably no cavity of large size, but the whole affected portion of the lung is riddled with small cavities, quite sufficiently large, however, to give rise to suggestive physical signs and to yield characteristic expectoration. I am far from saying that these cases may not be benefited by operation, though at the time the result is apt to be disappointing. On exploration, a small but distinct quantity of pus, probably having an offensive smell, is drawn into the syringe; but, on incising the lung, the operator is disgusted to find that he has opened only a minute cavity, or perhaps more than one, and that his finger appears to pass only into unusually friable pulmonary tissue. He should not, however, despair but insert his tube, and, as the process of disintegration goes on, he will very likely be rewarded by a more copious discharge from the tube and a gradually diminishing expectoration.

3. *Pyæmic Abscesses.*—These are hardly interesting to the surgeon. They seldom attain a large size, and are almost always multiple. They affect various parts of the lung, but are commonly met with on the surface. They arise from septic emboli, and in their earliest state consist of conical patches of pulmonary apoplexy, which afterwards become surrounded by local pneumonia, and are usually indicated, on the surface of the lung, by a raised round spot covered by recent lymph. When suppuration has occurred, the centre is occupied by a small quantity of pus lying in a round smooth-walled cavity. Although surgery can seldom do anything for these, and although the prognosis, if they be present, is extremely bad, there is reason to believe that their contents may occasionally be coughed up, and that the patient may recover.

4. *Hydatids.*—A suppurating hydatid stands upon a somewhat different footing from one that has not suppurated. In the latter case there is a tense cyst impinging directly upon the normal lung tissue, and often also upon the normal pleura. In the former there is probably, but not always, a distinct ectocyst formed by the inflammatory processes that have been going on, and the contents are usually purulent, mixed with the *débris* of the mother and daughter cysts. Sometimes, however, as has been said above, there is no ectocyst, and the wall of the cavity is then formed of disintegrating pulmonary tissue. In such a case the contents are very likely chocolate-coloured pus, in which hooklets and other hydatid *débris* are to be found. It is remarkable for what a long period this sort of material may continue to be expectorated. There is in these cases not the same fear of causing "death by drowning" from the escape of the contents into the air passages that is present in dealing with a living hydatid. They are to be opened exactly in the same way as any other operable pulmonary abscess. They most frequently occur at the lower part of the right lung. The surgeon must not be surprised if he should meet with a localised collection of serum or pus in the pleura superficial to the suppurating hydatid.

5. *Actinomycosis and other fungoid diseases* will probably puzzle the operator when he first meets with a case. He will most likely have made his diagnosis of abscess apparently secure by drawing off some pus with the aspirator. On entering the lung, however, the finger will pass into a soft homogeneous mass from which very free hæmorrhage will occur, but very little pus will escape. It will very likely be necessary to plug the wound, and then an examination of the pus should clear up the difficulty. When it is remembered how often actinomycosis occurs in the liver, and how greatly this viscus enlarges both upwards and downwards in consequence, it will not surprise you to hear that more than once I have opened an actinomycotic liver, thinking it was the lung; when the abscesses were pointing or had already discharged through one of the lower intercostal spaces in the axilla.

Common Type of Pulmonary Abscess.—Turning now to the more ordinary cases of pulmonary abscess, it may be said that the cavities vary enormously in shape and size, but are perhaps more often rounded than irregular. The surrounding tissue is always more or less altered, and the lining of the cavity varies accordingly. In most cases, however, the wall is not smooth, but either presents strands passing across from side to side formed by the comparatively slowly disintegrating bronchial tubes, or small tubercles representing the truncated extremities of these when they have given way. When the process is acute, the finger passes easily into the pulmonary tissue; when it is more chronic the walls are firmer; sometimes, indeed, they are quite dense and hard.

Acute Pneumonia.—If it have passed into a state of gangrene, the part of the lung affected is widely disintegrated, and is probably at first occupied by a number of cavities containing brown stinking material. Later a distinct abscess may be formed, and sometimes this occurs without the intervention of the gangrenous process. Such abscesses are embedded in a wide area of consolidation, which makes the process of opening somewhat simple because the lung does not tend to collapse after the chest is incised. They are, of course, most frequently met with at the base of the lung but occasionally at the apex.

Gangrene.—The gangrenous cases are very unfavourable for any treatment, but sometimes the only possible chance for the patient seems to consist in making a free opening. It must be added that I have seen cases where this attempt has failed and yet the patient has recovered after weeks of agony, during which he has been a burden to himself and his friends on account of the constant expectoration of most filthy material. The localised pneumonic abscess is, on the other hand, one of the most favourable forms for surgical interference.

Chronic non-tuberculous abscesses are, however, the most favourable cases of all. They sometimes develop without any assignable cause, and may then be met with in any part the lung. More often, however, they depend upon the rupture into the lung of an abscess originating elsewhere, such as a hepatic abscess or an empyema. Hepatic abscess is frequently followed by the formation of an abscess in the base of the right lung. This is often situated in front, and may then lie behind the third, fourth, and fifth ribs and interspaces; it also not infrequently occurs posteriorly. The surrounding lung tissue suffers very little, and if you have a chance of seeing the necropsy of a patient in whom one of these abscesses has healed, you will probably doubt the history you have been supplied with. Free opening and drainage is all that these abscesses require. They often, however, take a long time to close. I have seen them continue to discharge for more than a year before finally healing. When a hepatic abscess opens into the lung it does not by any means always result in a second abscess. It may merely form a sinus through the lung, and, I need not add, those cases often recover without operation.

Tuberculous Abscesses.—This is not the place to describe the ordinary tuberculous vomica, lest we should appear to be encroaching too much on the domain of medicine; and I would only say in passing that the surgeons have for many years been engaged in devising plans for the treatment of these cavities by operation, and hint that there must be cases that could be drained with advantage; some have gone so far as to excise the apices of affected lungs, whilst the tuberculous affection is limited in extent; but to enter on this question now would lead me far beyond the limits of my subject. The tuberculous abscesses that come into my theme are those occasionally met with at the base of the lung. They are surrounded by tissue infiltrated with tubercle, and their walls are mostly pretty firm. They require surgical treatment, and this does not present any special difficulty.

Tuberculous Disintegration.—I have already referred to the rapid disintegration of a portion of tuberculous lung, and the sort of sponge riddled with small cavities which may result.

Traumatic Abscess.—Lastly, I must refer to the subject of injuries, but will not dwell upon it. Foreign bodies in the bronchi produce either acute or chronic bronchiectasis. Perforations from without may be followed by abscess, but there is nothing very special to be said about them.

THE OPERATION FOR PULMONARY ABSCESS.

I will conclude by giving a very brief account of the operation required for opening a pulmonary abscess, and then add a few illustrative cases.

It is supposed that the presence of pus has been ascertained. The first essential is to harden your heart against giving credence to the assertion that "adhesions must be present." No one is able to be certain about it, and it is your duty to assume that there are none. A free incision should therefore be made, free enough to enable you to remove portions 3 inches long of two, or if necessary more, ribs. The ribs should then be removed without, if it can be avoided, inflicting any injury to the pleura—and it must not be forgotten that, if the pleura be healthy, this is by no means an easy procedure, and demands care and deliberation.

The next step is to pass fully-curved needles—Hagedorn's are excellent for the purpose—to the depth of ¾ or 1 inch into the substance of the lung through the pleura. Six or eight such stitches are placed in a ring round an area sufficiently large to enable you, when you open the lung, to insert a large drainage tube; the opening should, indeed, be large enough if possible to admit the finger. When this is done, the pleura and the lung are incised with a knife, or the deeper part may be done with dressing forceps. Some surgeons recommend that this part of the process should be left for another occasion, and that the actual cautery should be used for the purpose. The latter is a troublesome process, but, if the skin be protected, no anæsthetic is required for this second operation. The charring of the tissues is very confusing, and, if the cautery be too hot, bleeding may occur, so I am not much in favour of the plan. Quincke has, however, described cases of bronchiectasis treated in this way, in which a very free incision into the lung has been made by repeating the process on several occasions, and in some of them good results seem to have followed. For my own part, however, I prefer, if the operation is put off to another day, to make the opening either with the knife or dressing or sinus forceps. If the hæmorrhage be severe the wound may be plugged. This will be sure to arrest it, and the drainage tube may be inserted the next day. I have, however, seen one case where a very large vessel was opened and the plugging had to be continued for a long time, as the withdrawal of the plug was always followed by very copious bleeding and hæmoptysis.

When the abscess is opened a large tube must be inserted well into the abscess, and must be retained in position as long as there is any considerable quantity of discharge. The tube is very apt to be expelled from an abscess in the lung, and special means such as stitches through the skin, or strapping over the deep part of the dressing, must often be resorted to for a long time.

These abscesses are so often septic that elaborate and expensive antiseptic dressings are seldom required. Boric lint or a small piece of cyanide gauze, surrounded by a mass of wood-wool, are very useful applications.

The fact of the tube being well in the cavity is often proved by the characteristic whiffing sound as the air is expelled in the act of breathing or coughing. The entry of air is sometimes so free that the patient can breathe through the opening when the mouth and nose are closed. I have under such circumstances heard a respiratory murmur in the opposite lung.

CHARACTERISTIC CASES.

Pneumonia.—A. Followed by Gangrene.

CASE I.—A small boy at University College Hospital, under the care of Dr. Poore, with double apex pneumonia. I exposed the apex of the left lung and opened a gangrenous cavity. He continued to expectorate brown stinking material, and *post mortem* we found a similar cavity at the right apex.

CASE II.—A middle-aged man, under the care of Dr. Thin and Dr. Carson Smith, had gangrene of the right base. I punctured the lung in many places, but failed to hit the pus. He continued extremely ill for a long time, expectorating for many weeks as much as 15 ounces of most filthy stuff, but then improved, the expectoration lost its smell, and he appeared to have completely recovered. I am informed, however, that quite recently he has had one attack of hæmoptysis—about a teacupful of bright arterial blood. He appears now to be in the best of health.

B. Followed by Abscess.

CASE III.—A girl of 19 years had a large abscess in the lower part of the left lung following pneumonia. It was opened in the left axilla, and she made a good recovery in nine weeks from the time of operation.[1]

I could, however, add cases where the patients did not recover, and also others in which I failed to find the cavities.

Pulmonary Tuberculosis.

CASE IV.—I once operated on a small basic cavity in a tuberculous patient, a middle-aged man, under the care of Dr. Bastian.[2] He made a good recovery, but died a long time afterwards of pulmonary tuberculosis.

CASE V.—A woman, aged 30, under the care of Dr. Ringer at University College Hospital, had in 1895 complained of pain in the left side for three years and had had cough for three months. She was the subject of syphilis and tuberculosis; she had a high temperature and rigors. I opened an abscess of moderate size at the left base in October, 1895. She improved greatly but left the hospital wearing the tube. If it was removed, cough and expectoration and fever returned. She came back on several occasions to have the tube replaced, and when last seen, though gradually losing ground, the most troublesome symptoms were kept in abeyance as long as the tube remained in the abscess.

CASE VI.—I have under observation now a lady, aged about 35, who comes of a very tuberculous family but who herself has enjoyed good health until a few weeks ago, when a slight cough set in. While a tooth was being extracted under gas, she either inspired some blood into the trachea, or it is suggested that she had an attack of hæmoptysis. This was followed by increased cough and fever, with fœtid expectoration and signs of consolidation at the right base. An exploratory puncture drew off fœtid pus. I stitched the lung to the chest wall and incised it, entering a cavity of very small size in the consolidated lung. The patient was only slightly relieved at first, and the wound, as is usual in such cases, became very septic. Soon, however, the expectoration diminished, while the discharge from the tube increased, and now she appears to be in a fair way to recovery.

We have at present only presumptive evidence that this case is tuberculous.

Chronic Non-tuberculous Cavities.

CASE VII.—A strong man, a retired prize fighter, under the care of Dr. Barlow at University College Hospital, had signs of a cavity at the right apex, and of mischief—it was thought disintegration of the lung—at the right base. He had been suddenly seized with violent pain in the right breast eighteen months before. He had gone to a Chest Hospital, and had been discharged as cured, but had had subsequent attacks of hæmoptysis, with increasing cough and expectoration. He had had no previous illness. The expectoration—muco-purulent, stained with blood, and brick-red—was so foul that he was a nuisance to the whole ward. He complained of pain at the lower part of the chest on the right side. He could not lie down, and the administration of the anæsthetic was very difficult and dangerous. I incised the apex of the right lung in April, 1898, in the second intercostal space in front, entering a small cavity containing stinking pus. I then removed a piece of the eighth rib in the posterior axillary line, and stitched the lung to the pleura. On subsequent occasions I incised the lung in this situation with Paquelin's cautery, but never found any pus there. In the meantime he gradually improved, but had considerable œdema of the legs. This, however, in time disappeared, and both incisions closed. He is now apparently well. It was thought that he most likely had some malignant disease, or possibly tubercle, but the result of the case appears to show that we were mistaken.

CASE VIII.—A medical man, aged 49, from the northern provinces of India, very robust, and with no history of previous illness, developed without apparent cause a small cavity at the right apex. The expectoration was very foul, and contained black lumps, which consisted almost entirely of fœtid masses of very long, straight, motionless bacteria, said by the pathologists not to correspond to any known pathogenic type. The cough was very troublesome and the temperature high. I incised the abscess in the second intercostal space in front, and entered a tough irregular cavity. Progress was slow but continuous: the black masses gradually disappeared, the cough and discharge ceased. He put on flesh, and in the course of a few months completely recovered, and has now returned to India.

I could give many cases of pulmonary abscess following liver abscess. The following will suffice:

CASE IX.—A young man now in the Brompton Hospital with a tropical abscess had all along a good deal of dulness at the right base. There was always a difficulty in getting the liver abscess to drain, and at last he began to expectorate large quantities of chocolate-coloured pus. The week before last I explored the back, and found a large abscess in the base of the right lung. The temperature at once fell, and he is now apparently recovering. He has now two sinuses, one passing into the liver and the other into the lung, the external openings being not far from one another.[3]

CASE X.—A young lady returned from India with a large hepatic abscess which she was expectorating. I opened it through one of the lower intercostal spaces in the axilla, and she improved. but continued to expectorate. There remained some dulness in front, with signs of a cavity behind the third, fourth, and fifth rib cartilages. This pulmonary abscess was opened through an intercostal space, and after many months she made a complete recovery. During the later stages of this case she used to expectorate a few pellets of blood-stained pus during the night, and discharge a similar quantity through the tube during the day, but there was no expectoration by day and no discharge from the wound at night.

Bronchiectasis.

I have described so many of these cases in different publications that I will not burden you with any of them here Some have been the result of old pleurisies; some have occurred apparently spontaneously, others have followed the inspiration of foreign bodies. In one only[4] has a completely good result followed operation. Some have been allowed to close; some have worn a drainage tube permanently; in a few cases the patients have appeared to have been actually worse for the operation.

Hydatid.

Cases x and xi.—We have had several cases of suppurating hydatid in the lung at the Brompton Hospital. Two have occurred during the last year, both in young women, both in the lower part of the right lung. One was for a long time mistaken for an empyema, and in the other the diagnosis was very doubtful until some cysts were expectorated. Both healed after incision, but both have now unfortunately developed tuberculosis—a possible sequence of this disease that should be borne in mind during the treatment of the case. In the case which was supposed to be an empyema I was proceeding very cautiously, because there was such a small space over which the physical signs seemed to warrant an incision. After removing the rib I could see the unadherent lung slipping backwards and forwards beneath the healthy pleura; so I at once introduced the stitches in the usual way and found on incision of the lung the suppurating hydatid quite close to the surface.

In concluding this somewhat desultory lecture I would again refer to the well-known fact that cases of pulmonary abscess (like those of empyema) are not infrequently followed by cerebral abscess. The treatment of these abscesses has so far been very disappointing. Not that they are always difficult to open, but they are often multiple, and the other results of embolic pyæmia are not seldom present.

References and Note.

[1] *Lancet*, 1887, vol. i, p. 513. [2] *Ibid.*, 1837, vol. i, p. 512. [3] Since the lecture was delivered this patient has died of a cerebral abscess. [4] *Med.-Chir. Trans.*, 1886, vol. lxix.

ON LATERAL CURVATURE OF THE SPINE: ITS PREVENTION AND TREATMENT.

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I.

In 1897 appeared in the Journal two papers by me[1] on Lateral Curvature, dealing largely with a sideways divergence of the pelvis and lower limbs, which, until I mentioned the subject in 1895 in my work on scoliosis, was unsuspected, and had altogether escaped recognition. I named this condition "amesial pelvis." It is of necessity followed by lateral curvature of the spine in such wise that pelvic deviation to the right produces lumbar or total curvature to the left, and *vice versâ.* Both these forms, but more especially the latter, are very apt to develop into the double or S-curve. I would wish now to complete my survey of pelvic aberrations, because they are most important factors in the production, their correction essential to the prevention and treatment of lateral curvature. Besides amesiality there are two conditions to be noticed: namely, version and obliquity.

The former of these has hitherto escaped observation; the term is intended to designate a twist or rotation of the pelvis on a vertical axis, so that one side of the bone lies further back than the other, the defective posture being named according to that side of the pelvis which lies most backward. The direction of this backward twist is usually left, and is followed by a left convex lumbar or total curve; while when the right innominate bone is thrown back the resultant spinal curvature is right convex. Version is independent of, though frequently combined with, amesiality, but as far as the deviation is concerned in contrary sense: thus when both deviations coexist left version coincides with right amesiality, and *vice versâ.* A mere inspection of the back, while the patient stands in drill posture in front of the surgeon, hardly reveals with any certainty this deviation, especially in its slighter or incipient stages, while when merely the back and loins are uncovered—a too frequent practice—the condition is of course entirely hidden. A good photograph taken under such conditions as I described last August, as ensuring by triangulation an absolutely correct position of the camera vertically behind the patient, will always reveal the defect, because that lateral half of the pelvis which is thrown backwards presents a broad side view, while that which is projected forward only affords a narrow foreshortened image of the gluteal region. Fig. 3 was thus taken: it shows a child, aged 12, with double curvature (dorsal to right, lumbar to left), with both amesiality and version of pelvis. If, to apply this test, we measure with compasses the distances from the rima natium to the side outlines of the pelvis, we find the left one to measure $\frac{7}{16}$, the right $\frac{5}{16}$ of an inch, which, as the girl is 4 ft. 8 in. tall, implies a real divergence of two inches.

It must not however be supposed that this malposture is only present during standing; on the contrary it is also present while the patient is sitting. Indeed, the origin of version is in the large majority of, if not in all, cases, due to a faulty habit of sitting, chiefly acquired while the child is learning to write. This is at that early age a very difficult business, which in order to leave the hand free and also under complete control, requires fixity of the shoulder girdle, and this again, perfect steadiness of the spine. The muscles securing this latter condition soon tire, more especially in the dorso-lumbar region; therefore, to ease them without losing stability or changing the position of chest and shoulders, such a twist is given to the pelvis, and with it of the lower vertebræ, as shall relieve the muscles and throw the work on the ligaments. The twist, be it remarked, must be of the pelvis, for if while this were steady the spine were turned, the chest and shoulders would turn with it; their posture necessary for writing would be lost. This twist or version of the pelvis, including of course the sacrum (part of the vertebral column) is in the same direction as the subsequent or simultaneous torsion of the resultant lateral curvature, which when it has been for some time maintained becomes habitual, not merely while writing, but in all sedentary postures; subsequently also in standing. The ligaments and muscles then rapidly contracture and adapt themselves to the posture and to the curve.

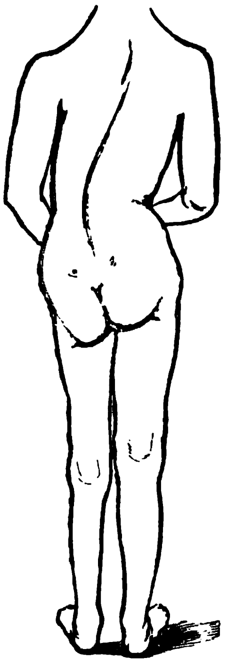

Fig. 1.—Permanent Obliquity.

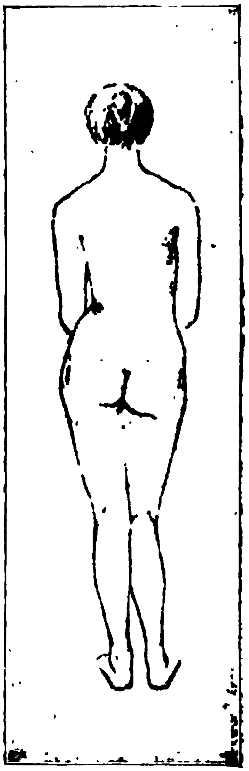

Fig 2.—Habitual Obliquity.

Though a good deal of the space at my disposal has been occupied by the description of this malposture, I must, on account of its importance, recur to it; but it will be better previously to cast a glance at the whole series of pelvic deviations, for they lie at the root and origin of very many curvatures. If, therefore, they can be detected while still quite recent, a large percentage of spinal deformities may be altogether prevented. Endeavours in a later phase to straighten a spine which has become crooked because the basis on which it stands is awry, can hardly be successful unless that fault in the base be rectified—as to shore up the top storeys of a house without attending to a defective foundation can but be a futile and disappointing experiment. In aid of this thesis I show here examples of the three pelvic deviations. They are "obliquity," of which two kinds exist, namely, permanent obliquity, produced by some cause that renders one limb shorter than the other (Fig. 1); and habitual obliquity, which is a mere position.[2]

Should such individual stand sometimes on one sometimes on the other foot, no evil would result, which only occurs when one limb is used almost exclusively (Fig. 2).

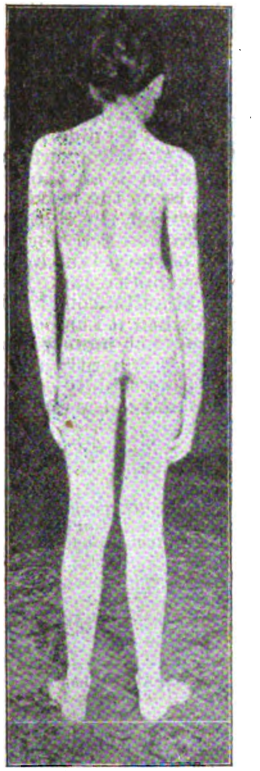

Fig. 3.—Amesiality.

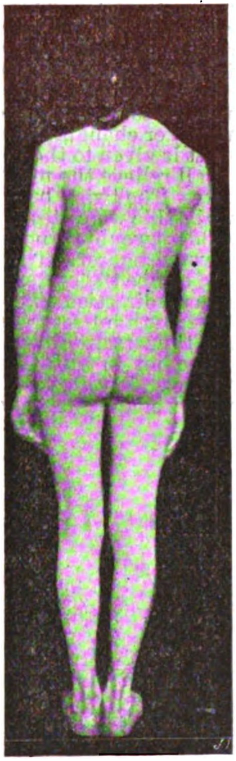

Fig. 4.—Version.

Pelvic amesiality is that posture described by me last year, but illustrated in this place by a different figure (Fig. 3), while the last plate (Fig. 4) is pelvic version. I would beg my readers in looking at these to consider how a spine can possibly stand straight on any one of the pelves, while they maintain one or other of the very common positions here depicted.

But I am forestalling matters. The subject just now is prevention of lateral curvature, which, of course, presupposes early recognition of pelvic defects.[3]

Permanent Obliquity (Fig. 1).—The figure is taken from a severe case; the condition, however, especially if due to mere inequality of growth, is often so slight as easily to escape notice, yet abundantly sufficient to produce curvature of the lumbar spine. The patient standing so that the light falls evenly on the figure, and so that some distance in front of him is a straight horizontal line, as, for instance, the edge of a table or a dado, the surgeon putting the index of each hand on the crests of right and left ilium, so stoops that this line corresponds with one of the fingers. If it fall also on the other, the pelvis is not oblique; but it is so if that other finger lie above or below the horizontal line. If such discrepancy be found, the length of the limbs should be measured. To do this simply with a tape measure stretched between certain points of bone frequently misleads. I would suggest, instead, the following method: let the patient lie supine on a sofa, holding one end of a piece of string on the centre of the sternal notch, while the surgeon so arranges the trunk, pelvis, and lower limbs, that the cord may fall on the xiphoid, the umbilicus, and other central points, and is brought down between the malleoli. With such arrangement there can be no possible tilting of the pelvis; and unless the two internal malleoli lie on an even plane the limbs are of unequal length. In only a few exceptionally difficult cases is it necessary to uncover the hypogastrium and upper part of the thighs.

Habitual obliquity (Fig. 2) is to be detected by somewhat assiduous watching. The surgeon may often see the position when the patient is in his room, but he has no opportunity of verifying it as a habit. By explaining the suspected position to the mother, or to one pretty constantly with the patient, such companion or attendant will act as his detective.

Amesiality (Fig. 3.)—In this place must be interpolated that last year I stated myself to be unable to account for the origin of this deviation, but since then my studies of such cases have shown me that in all or nearly all cases it originates in a faulty mode of sitting different from that which causes version. To this point I must shortly recur, but just now my subject is diagnosis. As shown last August, the camera is a diagnostic instrument of great value; but for the persons immediately surrounding the child and for the family attendant it hardly is applicable for the early detection of the defect. The patient's back must be bared to just below the level of the trochanters and the remaining garments pinned up so as to show the juxtaposed heels. She will then be placed in drill posture and the surgeon standing some five or six paces behind her holds a plumbline so that it falls over the interval between the feet. If the pelvis be amesial the rima natium will not coincide with the cord but will be to its right or left. When the patient is dressed again, or so far dressed as to eliminate any sense of shyness, a pen should be given her and she should be told to sit down and write either at a desk or flat table, whichever is her custom; the posture of pelvis is then to be studied as to whether one side of it is more prominent than the other, but more particularly whether or no she put equal weight on each side. Often it will be found that she sits entirely on one tuber ischii, the other not supporting any weight at all, the skin over it barely touching the seat. If the left be thus used amesiality in the erect posture will be found to the right and *vice versâ*.

Version of the pelvis though not easily verified by looking straight at the flat of the back is not difficult of diagnosis. Let a piece of white tape be fastened with carpet pins to the floor and arrange the patient, who, however, must be nude, in drill posture, so that the heels just touch the margin of that line. The surgeon places his eye so that he looks down along the surface of the back and so that the glutei (one or both) coincide with that line; if both do so there is no version, but such defect is present if one just touch, the other project beyond the tape. But in the earliest beginning version is a fault not of standing, but of sitting; its diagnosis in the latter position is easier of detection and does not require undressing. If the patient be told to sit on an ordinary chair and in her usual position, but with the knees in contact, one may, in well marked cases, discover by palpation that one or other side of the pelvis lies in a plane behind the other. But such mode is in practice rather uncertain; one must inspect by touch, or sight the knees—if there be, let us say, left version, the knee of that side will be found quite an appreciable distance behind the right one. A flat ruler placed on each ligamentum patellæ will slope backwards on left side. The object of these somewhat minute, but let me hope not wearisome, descriptions is simply to impress on all who have to do with the rearing and education of young people the necessity of close observation of their postures, more especially during the time of study. The hours thus occupied have of late years been greatly augmented. During the same epoch the prevalence of lateral curvature has greatly increased and my desire is to enforce the lesson that the deformity is not a mysterious and inevitable fate; but in a large majority of instances a thing that can be avoided if some intelligent observation be used and proper means be taken. What those means are and their mode of application will be the subject of my next communications.

NOTES AND REFERENCE.

[1] BRITISH MEDICAL JOURNAL, 1898, vol. ii, pp. 332, 335. [2] These deviations being fully treated in my work on *Lateral Curvature* need little

more than mention in this place. [3] I again must say that not all, though a very large number of curvatures, are due to pelvic deviation; it is, therefore, those only for which prevention is here proposed.

(To be continued)

A CONTRIBUTION TO THE TREATMENT OF PUS IN THE PELVIS.*

By J. FURNEAUX JORDAN, F.R.C.S.,
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FOUR or five years ago, under the influence of the teaching of Lawson Tait and C. J. Cullingworth, we might have looked upon the treatment of pus in the pelvis and pelvic organs as settled for ever. The brilliant results achieved by these operators, especially by the former, are only equalled by the clear and decisive way in which they have described the cases, with their pathology and treatment. The treatment laid down by Cullingworth in his inaugural address on Pelvic Abscess delivered to the Midland Medical Society in the autumn of 1893, may be summed up as follows: For all cases of pyosalpinx, tubo-ovarian abscess, and ovarian abscess removal in its entirety of the organ containing the pus through an incision in the abdominal wall. For all cases of extraperitoneal suppuration—that is, of pelvic cellulitis gone on to suppuration—incision and drainage through the point in the abdominal wall above Poupart's ligament where the abscess usually points. Mr. Tait in his book on abdominal surgery advocates abdominal section and drainage for cases of suppurating hæmatocele of the broad ligament, and even for cases of pus in the broad ligament.

In the Obstetrical Society's *Transactions*, 1892, vol. xxxiv, p. 254, is a most interesting paper by C. J. Cullingworth on the value of abdominal section in certain cases of pelvic peritonitis. Of 50 cases reported here in full there was suppuration in 30, chiefly tubal and tubo-ovarian; of these 30 cases 6 died, giving a mortality of 20 per cent.

In the last ten years of his work at the Women's Hospital, from 1883 to 1892 inclusive, Mr. Tait operated upon 71 cases of pyosalpinx with 11 deaths, a mortality of 15.6 per cent.

In the last ten years, 1888 to 1897 inclusive, in the Women's Hospital the appendages have been removed for pyosalpinx 105 times with a mortality of 15.2 per cent.

My own cases of pyosalpinx and tubo-ovarian abscess are 20 in number with 3 deaths, a mortality of 15 per cent.

All these figures refer to cases of pyosalpinx treated by abdominal section, and we may therefore take it that the mortality in these cases is on an average 15 per cent., or possibly, even a little higher. Up to the spring of 1897 I had operated upon 15 of these cases with 1 death, and I confess that I was quite satisfied that the method of operation as practised was the best, and should be adopted in all cases. During the summer of 1897 I was led to consider the question again. Two deaths which occurred in my practice at that time—1 at the hospital and 1 in private—impressed upon me the necessity, if possible, of some improvement in the method of treating a certain class of these cases. I say "a certain class of these cases" because I want it to be clearly understood that for the great majority of cases of pyosalpinx removal through an abdominal incision is undoubtedly the best method of treatment. I will even add that removal by this route—the treatment, in fact, first laid down by Mr. Tait—is the ideal method in every case. But if by some other method we can give the patient a greater chance of life and an equal relief from her suffering, then I maintain that it is our duty to adopt that method. This method is incision and drainage from the vagina, a method mentioned by Mr. Taylor in his recent paper to the Midland Medical Society.

Before dwelling in any detail upon the method, let me first of all say in what class of cases I should adopt it. I advise its adoption in cases of long duration in which the pyosalpinx, or an abscess communicating with it, can be felt filling up Douglas's pouch, in which the patient is exhausted both by pain and prolonged suppuration, and suffers from emaciation and night sweats. She is, in fact, in a hectic condition, and absolutely unfit to stand a prolonged abdominal section. The intensity and the amount of the pain in these cases are an indication of the extent of the peritonitis and consequent adhesions and possible localised intrapelvic suppuration. The salpingitis itself does not cause intense pain; it is the peritonitis due to extension of inflammation or even leakage through the abdominal ostium of the tube that causes pain. The peritonitis may be suppurative, but, as a rule, the pus is shut off from the general peritoneal cavity by adhesions, and forms a localised intraperitoneal abscess communicating with the pus sac formed by the tube. It is in these cases that the tube or pus sac forms very dense adhesions with neighbouring organs. Adhesions are encountered in most cases of pyosalpinx; these, as a rule, can be separated easily and safely with the fingers or mop. It is not, however, always so; in the more severe cases they can only be separated with great difficulty, and with the risk every second of tearing the bowel. In my two fatal cases of the summer of 1897 I removed from one a double pyosalpinx, from the other a large tubo-ovarian abscess; in both the adhesions to bowel were extensive and strong. I separated them as gently as I could with a mop, and, as far as I could tell, without any injury to the bowel, but both patients died of perforative peritonitis. The abscess cavities in both of them could have easily been incised from the vagina, the adhesions would not have been disturbed, the cavities would have granulated up, and I believe I should have saved them both.

I have no doubt I shall be told that it is not good or scientific surgery to leave the pus sacs behind; that it is a reversion to the old method of tapping from the vagina; that suppurating sinuses will be left after convalescence, which will discharge for an indefinite time; and that it is quite possible that all the pus sacs will not be opened. I can only say that surgery which cures with the least possible risk to life is to my mind good surgery. That it is a reversion to the old method of tapping I absolutely deny. That was and always will be a step in the dark, and can never result in good drainage, without which the pus sac will never heal up.

As regards suppurating sinuses, I can only say that I have not had any experience of them in vaginal cases. Are they unknown in the cases treated by the abdominal route? My only experience of an obstinate sinus was in a case of large double pyosalpinx rising nearly up to the umbilicus, removed through the abdomen.

With regard to the last objection—that some pus sacs may be left unopened, I will deal with it when I speak of the technique of the operation itself.

I have operated upon six cases of pyosalpinx by the vaginal route; not a large number, I grant; but the results have been so satisfactory, and the convalescence has been so easy and quick that they are quite sufficient to convince me of the advantages of this route. They are all perfectly well now, they have no abdominal scar, no necessity for wearing a belt, and run no risk of getting a ventral protrusion.

Table of Cases.

Initials.	Married or Single.	Date.	Place of Operation.	Disease.	Operation.	Result.
A. C.	S.	Nov. 29, 1894	Newhall Street	Pyosalpinx and localised pelvic abscess	Incision and drainage from vagina	R.
H. M.	M.	Jan. 9, 1897	Women's Hospital	Double pyosalpinx	Removal *per vaginam*	R.
L. G.	M.	Jan. 18, 1897	Women's Hospital	Large left pyosalpinx with myoma uteri	Vaginal hysterectomy and drainage	R.
E. C.	M.	Mar. 4, 1898	Dudley	Large left pyosalpinx	Incision and drainage *per vaginam*	R.
A. F.	M.	Mar. 20, 1898	Women's Hospital	Large left pyosalpinx	Incision and drainage *per vaginam*	R.
E. M.	M.	July 6, 1898	Moseley	Double pyosalpinx	Removal *per vaginam*	R.

In addition to these there are 4 cases of pyosalpinx treated by my colleagues by this route on record in the Women's Hospital statistics.

The first of these cases was operated upon as far back as

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* Read at a meeting of the Midland Counties Branch of the British Medical Association.

November, 1894. If I had known then as much as I do now I might at a much earlier date have looked upon this method as an operation of election. In that case it was one of necessity.

It was a case of pyosalpinx of long duration. The woman was extremely emaciated and pulled down by the disease. There was a large tender swelling above and behind the uterus. This I attempted to remove by abdominal section on November 21st, 1894, but on opening the abdomen I found the whole of the pelvic inlet shut off by coils of intestine densely adherent to one another. It was absolutely impossible to separate them so I closed up the abdomen. Four days later I tapped the mass from the vagina and drew off only about 2 drachms of pus. Her condition did not improve, and I felt certain there was more pus there. Under an anæsthetic on November 29th I made an incision behind the cervix, and cutting upwards behind the uterus I opened Douglas's pouch; with my fingers I could separate to a slight extent the adhesions between the floor of Douglas's pouch and the pyosalpinx. I then cut into the pyosalpinx and about 3 ozs. of pus escaped. I enlarged the opening and packed it with gauze. This I removed in 48 hours, and employed irrigation for the next few days. The cavity soon granulated up, and her recovery was complete.

I was so firmly impressed with the idea that the tube should have been removed through the abdomen that although she was cured I looked upon the case as one in which I had failed to perform the ideal operation. It was a failure on my part not to have seen that this very treatment to which I was driven as a matter of necessity was the very method that I ought to have adopted from the beginning. I have no doubt now that when I tapped her I simply tapped a small abscess in Douglas's pouch.

What we should do instead of insufficient tapping, is to make a free opening into Douglas's pouch behind the cervix. It is very easily done with scissors curved on the flat, keeping the point of the curve towards the uterus. If the pyosalpinx is very adherent to the floor of Douglas's pouch it will be opened straightway, if not the exact relations of the parts, using if necessary gentle bimanual examination, can be made out. When the pus sac has been defined it must be incised and the pus let out. Then the opening is enlarged and the cavity explored. If in doing this bimanual examination is employed I do not think any pus sacs will be left unopened. After this iodoform gauze packing is all that is required, followed afterwards by daily irrigation and in some cases by light repacking. This is the procedure I have adopted with the happiest results. The cases are few in number, but it does not necessitate a large number of cases to convince one of the advisability of a new procedure, if it did there would never be any attempt however slight at improvement. I do not pretend for one moment that this method is original. My first case was certainly done before I knew of such a proceeding having been adopted by anyone else, but as I have said I did not learn the lesson from it that I ought to have learnt. This method has been largely practised by French and American surgeons and to some extent in this country. I believe, however, that it is not sufficiently known that patients distinctly in a bad condition to stand a prolonged abdominal section can be not only relieved but cured by an operation that takes only a few minutes, that does not involve exposure or fouling of the general peritoneal cavity and which therefore must entail less risk of peritonitis and be followed by an easier convalescence.

I repeat that I do not set this up, nor has it been set up, except by a few enthusiastic Americans, as in any way a rival to removal by abdominal section as the treatment for pyosalpinx. It is to my mind a valuable auxiliary operation; one which will, I think, enable us to save lives which otherwise would be lost. This method of treatment may be extended even further, and in 2 out of my 6 cases I have succeeded in completely removing both pus tubes by the vaginal route. In these 2 cases removal would have been effected more easily from above. They were both rather stout, they both absolutely refused to have the abdomen opened, but consented to an operation by the vagina. I expected to have some difficulty in incising and draining the pus sacs in these cases, as they were not large enough to fill up Douglas's pouch. They were, however, low down, and after opening Douglas's pouch I found I could remove them. Removal of the appendages *per vaginam* is not an easy operation in any case, and where adhesions have to be separated and a soft, friable tube and ovary pulled down into the vagina great care is required.

I am not prepared to discuss now the performance of vaginal hysterectomy as part of the operative treatment in cases of double pyosalpinx. I do not consider that we have sufficient evidence yet to show clearly whether the climacteric disturbances are greater after hysterectomy than after removal of the appendages or *vice versâ*. As long as we can cure our patients either by removal of the appendages through the abdominal incision or by vaginal incision and drainage, or even by removal *per vaginam*, then I think myself that the cases which will call for vaginal hysterectomy are very few. I grant that I have one in my few cases treated by the vaginal route.

This was a case of large left pyosalpinx *plus* an interstitial myoma of the uterus. Before I performed vaginal hysterectomy I had attempted removal of the appendages from above, but in trying to separate the bowel adherent to the top of the pyosalpinx I nearly tore it across. As there were several other adherent coils of intestine, I contented myself with suturing the tear in the bowel and closing the abdomen. Some weeks afterwards I performed vaginal hysterectomy and drained the abscess cavity of the pyosalpinx through the opening made in the removal of the uterus. She made a good recovery.

Before concluding, I wish to repeat that it is only in a limited number of cases—in those which may be considered as of the severest kind, having as a rule a long-standing history of gonorrhœa—that I advise operation by the vaginal route. I may have to alter my views again. I can imagine that we shall find some day that all cases of pyosalpinx should be treated from the vagina. I can also imagine—though I hope it will not be so—that the closed pus sacs, tubal or tubo-ovarian, may some day give rise to further trouble, and we shall wish we had removed them entirely. If so, than I shall stand convicted of making a mistake now. But if I am told that they will fill up again with pus because the sacs which were tapped years ago refilled, I shall not believe it. This laying open of the sac and drainage is a very different thing to tapping.

Because I wish for this method of treatment to be adopted for the class of case that I have mentioned, I have not lost my admiration of the work done by the men who laid down the foundations on which the treatment of pyosalpinx is built. Without their experience, their teaching, and their boldness of treatment it would never have entered into the mind of anyone to remove these pus sacs through the vagina.

ON THE VALUE OF GLOVES IN OPERATIVE WORK, WITH A NOTE ON THE CLEANSING OF THE HANDS.*

By J. LYNN THOMAS, F.R.C.S.ENG.,

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I PROPOSE in this short communication to place before the members of this Branch the impressions gained by the wearing of gloves in general operative surgery since February, 1898, and trust they will be of some interest and value.

"The use of gloves is of high antiquity," for it is recorded that Cyrus, King of the Persians, about 2,500 years ago, went without his gloves.

The end of the nineteenth century has seen the introduction of gloves into "certain kinds of manual labour" after the fashion of the ancient Greeks and Romans, but history does not relate what particular kind and form of glove were used by them.

The costumes which were worn by our forefathers to keep away the plague were not complete without the gloves, and the *fin de siècle* surgeon tries to ward off his plague—the pathogenic organism—by putting the final touch to his costume by wearing the microbeless glove.

When one of our great authorities on gloves stated that "yarn, thread, silk and cloth gloves are of comparatively little importance,"[1] he little dreamt that these despised articles of wearing apparel would so soon come to play an important part in the saving of human life.

The whole aim of the modern surgeon is to prevent his ubiquitous foe from establishing an "effective occupation" within his sphere of influence, and an old-fashioned custom of challenging to fight has been reversed by the surgeon by his taking up the glove instead of throwing it down.

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* Read at Aberdare before the South Wales and Monmouthshire Branch of the British Medical Association.

It is now a little over nine months since I took to using gloves in aseptic operations, and for this purpose I have tried gloves made of silk, taffeta, thread, and cotton, and I like best the buttonless thread gloves, because they are closely woven, fit well, stand any amount or method of sterilisation, and cost but a few pence per pair. Since August last I have also taken to wearing gloves in septic cases, and for these cases there is only one type of glove that can be of any use—namely, a non-permeable one of the rubber type. The ones I use are sold by surgical instrument makers under the name of the patent film P.M. gloves.

The subdued sense of touch caused by the wearing of gloves does not in any way interfere with the due performance of the numerous manipulations required in operating. The only fault that I have to find is with the rubber gloves, because they are liable to be torn in tying ligatures and are very expensive, costing 6s. to 9s. a pair. I do not think it necessary to have gloves made with gauntlets, because it is extremely rarely that the forearm comes even into temporary contact with a wound.

En passant I would remark that up to the present time I fail to find any reason for wearing a respirator or a sterile cap during operations; the experienced mountaineer breathes through his nose when climbing, and the surgeon should copy him when operating.

From conversations with a few of the London surgeons in June last I gathered that practically no one in the metropolis had taken kindly to gloves in operative work, and it is on that account that I venture to record my short experience.

I think the consensus of opinion is that when one is called upon to do an operation for a condition which does not in itself immediately threaten life, and which does not also show any signs of inflammation, the surgeon ought to be able almost to guarantee that union of the wound will be complete within a fortnight. I am referring of course to such cases as diagnostic incisions into the abdomen and skull, radical cures of hernia, varicocele, etc.

I wonder how many of us could state without hesitation that not even a suture abscess would appear in the skin after such operations, and when one does appear I think we ought to realise that we have not observed all the details of the ceremonial of surgical cleanliness.

Since I have taken to gloves I feel greater confidence in prophesying with regard to the healing of wounds than I did before adopting them.

Surgical operations from a glove-wearing point of view may be divided into the septic and aseptic classes. In the (1) aseptic cases one may state that gloves are worn to prevent the possible contamination of the field of operation by the hands of the operator, his assistants, and nurses; and (2) in septic cases to protect their hands from being contaminated by the field of operation.

I will not bore you with what Mikulicz, Manteuffel, McBurney, A. Wölffler, and others have written about this subject of gloves, as it properly belongs to the surgical history of the closing days of the nineteenth century.

I have used the thread gloves in such cases as the screwing of old mal-united tibiæ, nephropexy (Vulliet's), gastrojejunostomy, gastrostomy (Hacker-Frank-Witzel's), ovariotomies, appendicectomies, radical cures of hernia, thyroidectomies, and in amputations; and the rubber gloves in such cases as psoas and perityphlitic abscesses and rectal operations, so that a variety of complex manipulations have been performed with the gloved hands, and I can say that the wearing of gloves has not in any way interfered with the due performance of the various manipulations required.

On the other hand, I find it easier to operate with the gloved hands in such cases as the radical cure of hernia and varicocele and hydrocele on account of the firmer grip the thread-gloved hand gives, and the same remark holds good with regard to the use of borers, reamers, and screwdriver in repairing mal-united or ununited fractures according to Lane's method.

I believe it is now generally granted that the chief danger of infection in aseptic operations is from the hands of the operator, his assistants, and nurses, because instruments, dressings, and other requirements can be rendered sterile with an absolute certainty before starting operating, but it is otherwise with the hands, and it is on that account that some surgeons do not touch wounds with their hands, but endeavour to perform every possible manipulation they can by means of instruments alone.

The contact-surface of hands may be clean enough at the beginning of a prolonged operation, but it seems reasonable to assume that by the time one is ready to put in a screw at the end of an operation that requires such an appliance, the contact-surface of the hands is in a very different condition, on account of the attrition, friction, and stretching of the skin caused by the coarse muscular movements performed; hence the protective influence of gloves.

The most striking result from the wearing of gloves in the aseptic cases has been the total disappearance of suture abscesses, and even of the suture blush in every case except two, and in both these cases which were operated upon on the same day septic silk from a new reel caused serious suppuration, as it was inadvertently assumed to be sterile when received from the instrument makers. Another, and by no means an unimportant, advantage of wearing gloves is that one does not carry "the smell of operations" about into drawing-rooms and dinner parties; and besides, one can let one's finger-nails grow to a respectable length.

The antiseptically sterilised fingers of some surgeons look very much like those of a washerwoman who is constantly biting her nails. Gloves prevent all the above troubles, and dry sterilised thread gloves can be put on as easily as driving gloves on dry hands, but it is otherwise with wet gloves.

The wearing of gloves in my opinion is the simple observance of the scientific ritualism of Lister's gospel of surgical cleanliness, and the prejudice with which I was once possessed against their adoption "in certain kinds of manual labour" now *non est*.

In the next place I would venture to draw your attention for a few moments to the method usually employed in the washing of hands in the majority of our large metropolitan and provincial hospitals. Briefly, the commonest method is as follows: The hot and cold water are mixed in a basin, the testing for the right heat of the water being performed by means of an unsurgically clean hand; there is a plug of a mysterious pattern in the basin to prevent the water running away, there is also an overflow outlet of a mystic significance, but, behold, there is no means by which one can sterilise the basin and plug. To be consistent with the ideal conception of surgical cleanliness such conditions ought not to exist, and I think the adoption of pedal taps, etc., is simply the substitution of an unsatisfactory and expensive mechanism which does not in any way meet the necessary conditions for rendering our hands pure and clean. It is true that Dr. Kelly, of Baltimore, has detachable basins which can be rendered sterile, but such elaborate appliances are faulty, and besides quite unnecessary, because after the first scrubbing of our hands in the water in the sterile basin, the rest of the cleansing takes place in contaminated water until the basins are again washed, sterilised, and refilled. The whole procedure is evidently not the final, but an evolutionary, step towards a simpler but higher state of cleanliness.

A few surgeons have been bold enough to take a hint from the modern barber—perhaps a lineal descendant of the barber-surgeon—and adopt an appliance which is at once simple and efficacious for the purpose of hand-washing. I refer to the shampooing tap. All you have to do is to fix the tap at a convenient height over a sink with an open outlet—which of course possesses neither a mystic plug nor a patent overflow—and turn the handle to the right place to get the requisite heat, and the ceremonial of handwashing is then performed in clean running water from beginning to end. A supply of sterile cloths or a metal key is kept in the carbolic lotion in which the nail-brush and nail-cleaner are also kept in order to turn the handle of the shampooing tap. A brisk scrubbing with alcohol, which is allowed to dry on the hands, prepares the hands sufficiently for the gloves.

I know of no disadvantage to the general adoption of gloves and shampooing taps in every large operating theatre, but in private practice one is compelled to admit that one is perforce compelled to forego the luxury of a shampooing tap in preparing for an operation; but since I have taken to carrying three pairs of sterilised thread gloves in the tin containing the gauze mops and make my unknown assistant and nurse wear them, I feel that the risk of wound contamination is very greatly diminished because the deterrent effect of the gloved hand upon the unsurgical mind and hand is most marked and salutary, as their unfortunate owner does not feel impelled to feel the patient's pulse or open a door or window during the trying vicissitudes of any long operation in private practice.

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CASES OF GENERALISED SEPTIC INFECTION TREATED WITH ANTISTREPTOCOCCUS SERUM.

By F. PERCIVAL MACKIE, L.R.C.P.LOND., M.R.C.S.ENG.,
Assistant Medical Officer, County Asylum, Shrewsbury; late Assistant House-Physician Bristol General Hospital.

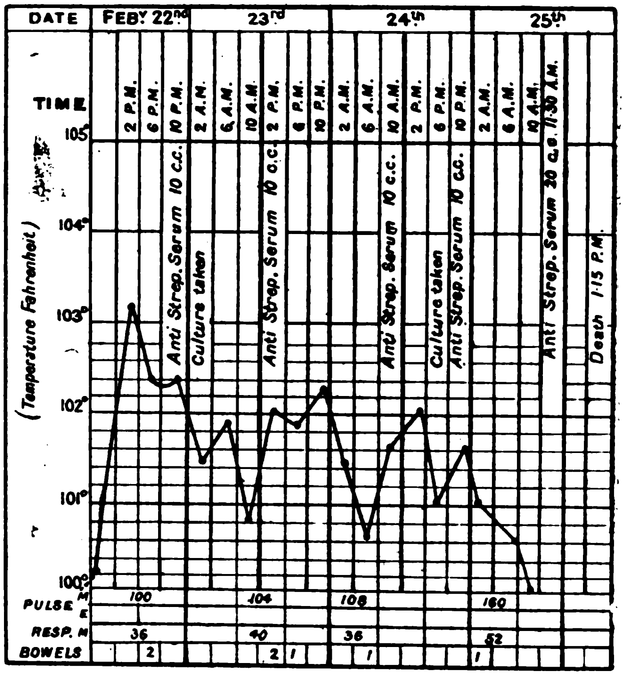
OUT of the 4 cases recorded below, 2 had a fair trial of this special treatment, the one taking 60 c.cm. in four days and the other 180 c.cm. in nine days. These 2 cases have been recorded more fully as possessing some interest apart from the special treatment they received. The 2 last cases only received each a single dose, but have been added to make the series complete.

CASE I.—J. H., aged 56, engineers' labourer, was admitted on February 22nd, 1898. He had suffered from some indisposition during the previous six weeks, which had not been sufficient to prevent his working, and eight days before admission he crushed his thumb with an iron bar. He applied friar's balsam, and subsequently had medical advice. He suffered a good deal of pain in the thumb, but it apparently healed without suppuration. On the night of the accident he had several shivering fits, and next day, about twenty-four hours after the accident, took to his bed. On the third day after the accident he complained of tender lumps in the left groin, but there was then no redness of the skin. On the following day they became more painful and swollen, and a scarlet blush was noticed over them, which spread rapidly up the left side of the trunk and towards the middle of the thigh. On the next day the redness and pain had increased and red blotches came out all over the body, but they were not tender. He was delirious on the third night and every subsequent night. He had no more shivering fits after the first night He was admitted seven days after the accident, under Dr. A. J. Harrison (by whose kind permission I am publishing this case).

Condition on Admission.—The pulse was 100, regular, and fairly strong: the respirations 36; and the temperature 103° F. The heart and lungs were normal; the urine was normal. The wound on the thumb was quite healed. There was no wound on any other part of the body. A large number of vivid scarlet patches, of varying size and irregular in shape, were seen all over the body, particularly over the hands, arms, and legs. The patches were not raised, nor indurated, nor tender. They partially disappeared on pressure, leaving a brownish stain. Some patches surrounded small suppurating areas deep in the skin, which did not seem to be connected with hair follicles. The patches gave the patient an extraordinarily mottled appearance, contrasting as they did with a sallow skin. There was a large, painful, brawny, red area on the trunk, most intense in the left groin, and extending from thence as far as the eighth left rib, and round into the loin, and on to the buttock, and a third of the way down the thigh. The glands in the groin could not be differentiated, but red, painful lymphatic cords were running up to painful glands in the left axilla. The edge of the inflamed area was fairly defined and indurated, but not inflamed. No fluctuation was detected.

Treatment.—He was given calomel, and subsequently four hourly doses of sulphocarbolate of soda, and hot fomentations were applied to the abdomen. At 10 P.M. 10 c.cm. of antistreptococcus serum were injected under antiseptic precautions, after which the temperature fell from 102.4° to 101.4° F. A cultivation was made from the blood. On February 23rd, after a bad night, he was restless and delirious, and had slight diarrhœa. The pulse was weaker (104); the respirations 40; and the temperature 102° F. The tongue was dry, caked, and tremulous. The brawny area on the trunk had extended markedly in all directions. At 2 P.M. 10 c.cm. of serum were injected without effect on the temperature. He was ordered 8 ounces of brandy daily. On February 24th the pulse was 108, the respirations 32, and the temperature 102.4° F. The tongue was hard and caked, and the brawny area had spread to the axilla, above, and below to the knee, involving the genitals. He was ordered perchloride of iron with quinine. At 10 A.M. he was given 10 c.cm. more serum, and the same again at 8 P.M. He was ordered a pint of champagne daily. He was very delirious all night, and next day erysipelas was commencing in the cellular tissue around the left eye. It spread visibly in two hours. The patch on the trunk had extended considerably, and large areas of skin were black. Two or three large bullæ contained thin bloody fluid, and over some parts the skin had come away, leaving a wet, slippery, blood-stained surface. He answered rationally when spoken to, but passed his time in low muttering delirium. Urine and fæces were evacuated involuntarily. The heart sounds were inaudible. There was no emphysema about the inflamed area, nor was the odour particularly offensive. Death occurred soon after midday on February 25th.

Post-mortem Examination.—The examination was made twenty-four hours after death. The patches of erythema had disappeared, leaving brown stains, with here and there small foci of suppuration in the skin. The large area was of a deep chocolate red, with scattered bullæ and necrotic areas. An incision into this area gave exit to some thin bloody pus, not offensive, from the deeper intermuscular layers. The examination of the various organs showed no changes beyond the general appearance commonly seen after death from septic blood diseases. There was no visceral or joint abscess, and no thrombosis of veins. The old injury to the thumb had healed soundly.



Bacteriology.—On February 24th, at 8.30 P.M., cultures were taken from the blood from the finger with control from the skin from the same site. After forty-eight hours at a temperature of 98° F. the blood culture remained sterile; the control showed one colony. On February 25th, at 11.30, a culture was made from fluid blood in the bullæ. This, after twenty-four hours' incubation, showed about twenty colonies of staphylococcus pyogenes aureus, a few of staphylococcus pyogenes albus, and a fine ground work which proved to be composed of fine streptococci, individuals very small, and about five to seven in the chain. On February 25th, at 2 P.M., three-quarters of an hour after death, cultures were made from the thin pus from the abdominal wall. After twenty-four hours' incubation they showed a general thin greyish film, consisting of numbers of exceedingly minute colonies, which consisted of very minute cocci in groups of three or four, and chains of like number. Cultures taken at time of the necropsy, twenty-four hours after death, from (*a*) blood in the right auricle, (*b*) splenic substance, after twenty-fours at 98.4° F., showed (*a*) a copious grey film, consisting of exceedingly minute colonies, which proved to be minute streptococci, three individuals to a chain, and a few small staphylococci; (*b*) forty small grey colonies resembling those of streptococci in naked-eye appearance, which proved to be composed of very small cocci, chiefly in small groups, and some small short streptococci.

CASE II.—A. T., a labourer, aged 37, was admitted on July 22nd, 1898, under the care of Dr. J. Michell Clarke, by whose kind permission the case is published.

History.—He had rheumatic fever 22 years before, and had had occasionally had slight œdema of feet since. He had been a heavy drinker till quite recently. He stated that on July 13th he felt cold, and after getting into bed had a severe shivering fit. He went to work next day, but gave up in two days because of the aching of the legs, which had persisted since. He had had considerable sweating, particularly at night. The chief seats of pain were the right knee, calf, and ankle.

Physical Examination.—He was pale and anæmic. The pulse was 88, collapsing. The respiration was 40; the temperature 102.5°. The tongue had a brown fur; the lungs were normal; the heart's apex was in the fifth intercostal space, an inch and a half outside the nipple line, and the first sound not quite clear at the apex. There was a well-marked soft diastolic murmur in the aortic area, conducted down the sternum and heard at the tricuspid area. The heart dulness extended a little beyond the apex beat. There was pulsation in the vessels of the neck, and capillary pulsation was obtained. The abdominal organs were normal. On the abdomen and chest were small red-brown spots. The urine was normal.

After-History.—He was treated with digitalis and cardiac stimulants and salicylates. On July 25th he felt better, but the temperature kept up, and there was a little diarrhœa. On July 31st the pulse was 100, the temperature 104° F., and the respirations 30. He complained of pain in the calf of the left leg, but there were no signs of thrombosis. Three small purpuric hæmorrhages were seen over the left knee-joint. On August 1st the heart's action was still rapid, a soft systolic murmur was heard at the apex, and the aortic diastolic persisted. On August 3rd injections of antistreptococcus serum were commenced; two doses daily each of 10 c.cm. The spleen was tender and enlarged. On August 4th there was loss of resonance over the base of the left lung, moist *râles*, and harsh breathing. The Public Health Office reported the appearance of two colonies of cocci on the blood culture, whilst the control cultivation from the skin remained sterile. Next day a few small papules which ran on to pustules appeared on the leg. He had a rigor at 5 P.M. (temperature 104.8° F.). The heart sounds were weaker and the murmurs the same. On August 7th hæmaturia appeared and continued on August 8th, when he was weaker. The sputum contained a large number of staphylococci, and a small group of cocci was found in the urinary sediment. Next day some livid patches appeared on the feet, and on August 10th great fulness was noticed in the splenic region without redness or fluctuation. On August 12th he was in a semi-comatose condition, and had diarrhœa and incontinence of urine and fæces. An intermuscular injection of corrosive sublimate was given. Next day he was in a typhoid condition, and on August 14th livid patches appeared over the abdomen. Right hemiplegia came on at 9 P.M., and involved the face, arm, and leg. The superficial reflexes were absent, the deep present. There was partial anæsthesia on the right side. He continued in a comatose condition, and died at 7 P.M. on August 16th.

Post-mortem Notes.—The heart was enlarged and dilated and flabby. There was a large mass of vegetations (the size of a hazel nut) on one aortic cusp. Another cusp was a little involved, but the third was healthy. There was no sign of old endocarditis. The mitral orifice was dilated, but otherwise healthy. The base of the left lung was collapsed, and the remainder of the lung was congested and collapsed along its posterior borders, but there was no pneumonia. The spleen was large, both poles being composed of huge infarcts, each measuring about 4 by 5 inches. There were several other small infarcts in the organ. The kidneys both showed several infarcts, each about the size of a hazel nut, surrounded by a very well marked zone of reaction. In the brain there was a large area, the size of a five-shilling piece, composed of breaking-down brain tissue, situated in the internal capsule, and extending into the optic thalamus and lenticular nucleus, and outwards as far as the island of Reil.

Bacteriology.—Two cultures were taken from (1) the blood from the right auricle, and (2) the splenic substance, at the necropsy both showed after twenty-four hours' incubation numerous colonies of staphylococcus pyogenes albus.

CASE III.—This was a very acute case, showing many symptoms of acute endocarditis. The patient died twenty-four hours after admission, and only eight days after the onset. Culture taken from the blood during life subsequently showed large numbers of colonies of staphylococcus pyogenes aureus, and the same coccus was isolated in pure culture from the heart's blood and spleen after death. A single dose of 20 c.cm. of serum was injected shortly after admission without altering the temperature or the course of the disease.

CASE IV.—A bargee debilitated by chronic alcoholism was admitted for a subacute wandering pneumonia with mental symptoms. Delirium set in, and the patient sank gradually. A systolic murmur developed a few days before death, and an effusion into the shoulder-joint, which turned out to be purulent, was noticed the day before death. In the face of these symptoms malignant endocarditis was diagnosed, and 20 c.cm. of anti-streptococcus serum injected, but the patient died. The necropsy verified the diagnosis, and a short streptococcus, associated with some staphylococci, was isolated from the heart's blood and spleen after death.

As will be observed, in none of the cases did the injection of serum appear to have the least effect, beneficial or otherwise, nor was the course of the disease altered or checked in any way whatsoever so far as could be observed. There seems to be some uncertainty as to what kind of case is likely to be benefited by this special treatment, and it does not seem to be generally understood whether the value of the serum holds good for cases of staphylococcus infection, or whether the treatment must be reserved for cases of pure streptococcus infection only.

It may be noted that in the first case there was a mixed infection, both varieties of coccus being present and both in a small variety, such being generally held to be more virulent than the larger or longer varieties. There is some little doubt as to whether or no there was a genuine blood infection in this case. The first blood culture was disregarded owing to the fact that the control test was contaminated with organisms. The second taken from the blood remained sterile. The culture, however, taken from the auricle after death grew abundant colonies, but whether it was that these were not sufficient in the circulating blood to ensure success, or whether it was that larger numbers gained entrance to the blood stream during the last hours of life it is impossible to say. At any rate, the inhibitory power of the serum over the organisms should have been the same whether they were in the circulating blood or in the tissues.

The second was a case of pure staphylococcus infection, as was also the third. The last-mentioned was a mixed infection like the first. It is a matter of great importance to be able to rely on the result of blood cultivation, more especially in those cases which recover or appear to be benefited by the treatment. It is obviously not of the same importance when the diagnosis is verified or otherwise by necropsy.

To ensure accuracy of result in this direction some such modification of the usual method as the following may be adopted, especially by those not conversant with the methods of bacteriology: The finger and that on either side of it should be sterilised in the usual way, as if prepared for operation, with the exception that when the pad of carbolic is removed prior to beginning the process the finger should be rinsed in boiled water to ensure asepsis rather than antisepsis. With a sharp-edged sterile surgical needle the skin over the selected site should be scraped till all the superficial layers are removed, and the whole *débris* thus obtained should be inoculated on an agar-agar tube and be labelled "control." The needle, after resterilisation, should be plunged into the finger through the area thus bared of skin, and a second tube inoculated from the blood obtained. If the latter tube grows organisms whilst the control remains sterile, it is almost conclusive evidence that the organisms came from the circulating blood and not from the skin of the finger, whence they doubtless come in a considerable number of cases in which no such precaution is taken.

My thanks are due to Dr. D. S. Davies, Medical Officer of Health of Bristol, who very kindly placed his bacteriological laboratory at my disposal.

EFFECT OF FOREIGN BODIES IN THE BRONCHI.

By R. SEVESTRE, M.D.CANTAB.,
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INTRODUCTION.

CASES have from time to time come under my observation in which it was known that a foreign body was or had been lodged in a bronchus. The great diversity in the clinical features of these cases led me to consult the ordinary text-books on the subject, but finding very little there I thought it would be interesting to look into the subject more closely and learn what were the effects produced when a foreign body was impacted in a bronchus.

In the first place I propose to mention briefly some general considerations of foreign bodies; then in more detail to consider the effects produced, which I have divided for purposes of description into an early and late stage, not that this is altogether satisfactory, for the one merges gradually into the other.

I do not propose to enumerate the solid substances which are recorded as having found their way into the bronchi; the list[1] is only of interest as showing how great is the variety.

The effects of a foreign body lodged in a bronchus will differ on the two sides of the chest according as the body is impacted above or below the eparterial branch of the right bronchus, and, as Poulet[2] states, more than two-thirds find their way into the right bronchus, it is a point to be borne in mind. Moreover, the effects will vary according to the extent to which the lumen of the tube is occluded, and this will depend on the shape of the body. A body, on account of its regular outline or from ulceration around it, is apt to change its location during a violent paroxysm of coughing; it may then be caught in the glottis, or if the cords be separated it may be projected into the mouth and expectorated, or it may impinge against the glottis, falling back into the same bronchus or even the one on the opposite side.

The effects may be divided into an early and late stage, the former being due to the obstruction and the irritative presence of the foreign body, the latter produced by the inflammatory changes consequent upon the prolonged irritation.

EARLY EFFECTS.

The physical signs in the earliest stage are those of obstruction to the entry of air into the lung, and will vary according to the amount present; it is important to note that with a free entry there may be no physical signs present. Such was the case with Mr. Brunel,[3] the engineer, who was amusing some children by catching a half-sovereign in his mouth, when it slipped down the air passages and lodged in the right bronchus; at an examination of the chest some days afterwards no difference was detected between the two sides.

After the complete plugging of a bronchus collapse of the lung below the obstruction very soon ensues, and is brought about by the absorption of air in the alveoli. This change takes place within a few hours, for Lichtheim[4] carried out a series of experiments on rabbits, and demonstrated that, on opening the chest walls twenty-four hours after a bronchus had been plugged with a piece of laminaria, the lung below the obstruction was collapsed. In the museum of the Royal College of Surgeons of England are the lungs and bronchi of a child who died from the effects of a foreign body in the right bronchus; collapse of the lung below the obstruction is well shown, and there is emphysema of the unobstructed portion of the lung. Lichtheim in his experiments also found emphysema of the unobstructed portion of the lungs. I think that in cases where plugging is incomplete, but the entry of air much diminished, some collapse takes place, for the alveoli at the periphery of the lung are not likely to be affected by inspiration or expiration; the elasticity of the lung then comes into play, and the air becomes gradually absorbed. The same is seen in other morbid states.

The sudden and complete plugging of the bronchus thereby rendering a considerable area of lung tissue functionless does not, I think, necessarily bring about a fatal result immediately. In animals it certainly does not, for Lichtheim allowed days to pass after plugging a bronchus before killing the animal. That extensive collapse may of itself lead to a fatal result I think is clear, for in the case last referred to death took place twenty-four hours after the plugging of the right bronchus. These cases, in which the onset is acute, and an enormous amount of work is suddenly thrown on the heart and the remainder of the lungs, are not comparable with those cases in which disorganisation of the lung gradually takes place, for in these the circulatory and respiratory systems have time to adapt themselves to the altered conditions.

Before passing on to the consideration of the late stage, I should like to say something about tolerance. Poulet gives a few examples; two were in lunatics, the foreign bodies being discovered at the necropsies. As nothing was known about these cases, I do not think they are of much value. It seems to me to be improbable that a foreign body can stay in a bronchus without producing some changes; a few cases are reported in which a foreign body has been impacted in a bronchus for some time, but the changes produced were always considerable. In an article in the *Lancet* of last year, the authors[5] stated that they were only able to find thirty-one cases of recovery in which a foreign body had been retained in the trachea or bronchus for over one year before its removal. Furthermore, they found that the cause of death was tuberculosis in the great majority of cases that did not survive.

LATE EFFECTS.

The presence of the foreign body leads in time to inflammation of the bronchial passages with subsequent consolidation of the lung. Sometimes, but not often, the onset of these changes is sudden and takes the form of an acute lobar pneumonia.

In reading about these cases and in the specimens I have seen in several museums, I have been struck by the similarity of the morbid changes. The mucous membrane of the bronchus is ulcerated where it is in contact with the foreign body, the smaller divisions beyond are dilated, their walls are thick and filled with purulent secretion, and in places ulcerated; the lung presents various stages of consolidation, in some cases passing on to gangrene. The pleura is thickened, and the visceral and the parietal layers adherent. In the museum of the Royal College of Surgeons of England there are specimens[6] which show these conditions; one is the lung of a child who died eight weeks after inhaling a piece of nut. The right lung is adherent to the chest wall, the divisions of the bronchi are dilated and the cut section of lung shows that it is solid, but it does not present the ragged, breaking-down appearance seen in another specimen.

The condition of bronchiectasis which I believe to be a common sequela is not mentioned in many of the references I have looked up. Mr. Rickman Godlee speaks of it in his lectures[7] on the surgical treatment of pulmonary cavities, and there is an illustration in Gross[8] showing the dilated bronchial tubes. It is interesting in two ways: in the first place as regards its causation, and secondly with reference to its diagnosis.

Of the two forms of bronchiectasis, cylindrical and saccular, the former is the one usually met with in these cases; whether this condition be due to the pent-up secretion or to the increased pressure during cough acting on the bronchial walls already inflamed and softened by the secretion, is not easy to say. That the latter is an important factor in its causation is certain, for cases of chronic bronchitis and emphysema often show the bronchial tubes to be somewhat dilated; another explanation that has been offered for bronchiectasis—namely, that it is due to the contraction of the chronically inflamed lung tissue, does not, I think, hold good in these cases, for the lung in many cases shows signs of disintegration.

This condition of bronchiectasis may not be easy to diagnose. If in puncturing the chest wall a muco-purulent secretion is withdrawn, it shows that it comes from a cavity in the lung connected with the bronchial mucous membrane. After excluding tuberculous processes, I should think of a foreign body as a possible cause, particularly in children where the history is often indefinite and the presence of a foreign body may not be suspected.

The consolidation of the lung is a gradual process, and is not usually the result of an acute pneumonia which has never resolved, for acute pneumonia is not common, and the physical signs point to a more gradual onset.

In a later stage complete disorganisation of the lung is found. A case is reported[9] in which death followed thirteen weeks after the inhalation of a piece of grass. The lower third of the lung is described as a gangrenous mass, riddled with cavities, in one of which a piece of grass was found.

The changes in the pleura are clearly the result of inflammation spreading through the lung. In some cases the process is different. Round the foreign body pus forms,[10] and gradually works its way to the surface and discharges, often carrying the foreign body with it. Even after removal of the foreign body it is by no means certain that the lung will recover, for it may be too disorganised, or the damaged portion may form the starting point of tuberculous processes, the frequency of which I have already drawn attention to.

CONCLUSION.

The effects of foreign bodies in the bronchi I have divided into two stages. In the first stage the most noticeable feature is the collapse of the lung; in the second stage the inflammatory changes predominate. Of these the most important are changes in the bronchial tubes, their dilatation with walls thickened and full of secretion, the consolidation of the lung and it may be its final disintegration, and the changes in the pleura, in some cases the formation of an abscess.

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ON THE HOT-AIR BATH, WITH ILLUSTRATIVE CASES.

By A. S. MYRTLE, M.D.EDIN.,
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IN my Note on the Hot-Air Bath in the Treatment of Arthritis, published in the BRITISH MEDICAL JOURNAL of December 10th, 1898, p. 1745, I promised to follow with the history of a few cases showing its value as a therapeutic agent. Between August 28th and December 31st, 1898, 680 baths have been given at our Royal Baths. I have received many letters from medical men asking me about superheated air baths. For their information I give a few general remarks on the different methods adopted till present date.

1. *The Tallerman.*—The heat is got from gas; it is a gas oven, can only be used for legs and arms, is cumbersome, and the products of combustion are distinctly felt.

2. *The Dowsing.*—The heat here is produced by electric lights similar to those used for house illumination. The light and heat from these is thrown from above on reflectors of glass and polished metal, but these cannot surround the part completely, as in

3. *The Greville.*—Here we have the sides, top, bottom, and ends supplying a steady glow all round from a very large number of small wires fixed in metal frame like the strings of a harp, and enclosed in a perforated aluminium case, which

is covered with a sheet of aluminium. This arrangement allows a slow, steady heat, which can be regulated and controlled with ease and safety; besides, Mr. Greville (31 and 32 Upper Berkeley Street, London, W.) has constructed every variety of bath, full length as well, so that there is no part of the body which cannot be successfully treated. All his chambers are so light they can be moved about as easily as one moves a chair.

CASE I.—M., aged 67, has been afflicted with gout for over twenty years. His attacks of late have been more and more severe and prolonged, lasting for six and eight weeks, in defiance of the most heroic treatment; otherwise strong and healthy. Saw him on August 16th, 1898, unable to move; could not turn in bed; hands, wrists, elbows, feet, ankles, and knees full of acute gout. August 28th: Persuaded him to have first Greville in his bedroom. Both legs were kept in for forty-five minutes; temperature 300°; neither pulse nor body temperature were affected. 29th: Had his second bath at 8 A.M. That afternoon I found him sitting up dressed. 31st: Was able to go to Royal Baths in chair, a distance of three-quarters of a mile. Could walk with assistance, was free from pain, had good night's rest. On September 3rd he went home, and since that date has been for the most part confined to bed and his room. I mention this case to show the rapid action of the bath and great and immediate relief afforded. Had he continued under the treatment I feel assured he would have been in a very different condition from the one he is in at present.

CASE II.—F., aged 75, always enjoyed the best of health, but for many years has suffered from rheumatism in both hips and knees. Now the hips are very stiff and painful; the knees swollen, painful, and almost incapable of any motion. This condition has been gradually increasing. Has been at Buxton, Bath, Aix-les-Bains, and other spas, without benefit. Ordered sulphur water internally, and thermal sulphur baths alternate with the Greville. At the end of a fortnight was much improved. In another fortnight could rise from chair with ease, and with assistance walk a little way. Pain in hips entirely gone, but still suffers in both knees. She felt perfectly satisfied that she had received more good from Greville treatment than all she had undergone previously.

CASE III.—M., aged 73, never had gout or rheumatism, but been very seriously ill with liver attacks. For some months has suffered from pain outside of left foot, with cramp of toes. This was followed by acute pain in outer and inner side of leg below knee, the pain coming on during the night whilst in bed, preventing sleep entirely. Had been under treatment for this without the least good following. The first Greville gave relief, and each following did more and more; after six the pain was completely gone, also the pain in foot and cramps. Six weeks have passed; there is no return, and he can walk as well as any man of his age.

CASE IV.—M., aged 60, twenty years ago showed very distinct symptoms of locomotor ataxy; this increased, exhibiting all the usual signs for two years, then became stationary, and has thus remained; is very gouty, bilious, and never entirely free from eczema; can hobble for one or even two miles with two sticks. Six months before I saw him he noticed his left leg begin to swell, and gradually this increased until it was exactly twice the size of its fellow. The swelling went from the foot to the body, was uniform, not in any way discoloured or painful, did not pit on pressure, or cause any inconvenience. After he had three Greville baths slight changes began to show themselves; the limb perspired freely for the first time; he felt something give way, and after three more baths the limb was the same size as the other, and has continued the same ever since. The symptoms, I believe, arose from block of lymphatic vessels. The limb looked and felt just as in phlegmasia dolens. Three months have elapsed and the cure continues.

CASE V.—M., aged 63, of very gouty family; has been subject to attacks for twenty years at least; for last five years hands, wrists, and fingers have been gradually getting worse. Rheumatoid arthritis (?); great disfigurement, pain, and helplessness. Often cannot do a thing for himself, sign his name, or hold his paper. Has been a regular visitor to Harrogate, and always found great good from the waters and baths. This year combined these with the Greville. After the first, right wrist felt softer, and showed signs of decrease in the wrinkled skin; pain much less. After the third could move fingers and wrist; can write and hold his book. He had altogether nine baths, and when he left volunteered the statement that his hands were better than they had been for years.

CASE VI.—M., aged 70. Enjoys perfect health, but for eighteen months has suffered from severe rheumatic pain in muscles above right elbow and in the joint itself; pain extends half-way up the arm. Has been treated thoroughly for it, and gone to several spas for douches and massage. After second Greville found considerable ease, and three more completely rid him of the pain. I saw him a fortnight ago, and he still felt all right.

CASE VII.—F., aged 31, delicate looking; gout very prevalent on father and mother's side; has no complaint except pains in both hands and feet. Pain in feet so great as to be unable to walk any distance; pain in hands incapacitates her from doing anything with them. There is no swelling in either hands or feet; occasionally the latter are reddish. Has been treated for gout during the last two years, but without benefit. She was sent to me by her doctor, in order to have a course of water and sulphur baths; these she had regularly for three months without change. I then tried the Greville, and she had six, temperature going up to 320°, without the slightest relief. I heard from her six weeks after she left, and she remains in the same condition.

CASE VIII.—F., aged 37; right shoulder swollen, painful; cannot extend arm at all, or raise hand to head, any attempt at either causing great suffering. This has been going on getting worse for the last three years, shoulder-joint measuring from above underneath armpit 1 inch larger than the left, and when you move the arm in any direction the scapula moves, shoulder is fixed; had gone through the usual course of treatment, including baths, galvanism, massage. After thirteen Grevilles, beginning at 300° and going up to 375°, the swelling gone. Can stretch out arm, raise it with ease to head, place it behind her back, and write for short time comfortably. I name this case whilst still under treatment, because it was pronounced incurable before she came to me.

The following cases are reported by Dr. James Myrtle:

CASE A.—M. E., aged 48. Sciatica, affecting the left leg. Had a full course of sulphur waters and baths before the Greville bath was introduced. He then stayed, and had three of them. During the six weeks he had been here he slowly improved in his walking power, and also had distinctly less pain. His was the first case in which the Greville bath was used. He saw me after his third bath, when I said, "Well, how are you?" He stooped down without flexing his knee, pretended to loose his boot, drew himself up, and said, "I have not been able to do that for seven years." I saw him six weeks after he left the place, and he told me the improvement still continued, and that had he any return he should go to London and have a few more baths.

CASE B.—T. B., aged 46. Case of acute double sciatica. This gentleman was introduced to me by Dr. Blasson, with the object of trying the Greville bath. At the time I saw him he was quite unable to get up from his chair without great effort. When up he was unable to move without crutches. He had been in this state for nine weeks. I ordered a bath, and saw him crawling with the aid of a friend and crutches down to it. When he left the bath he walked a distance of three-quarters of a mile to his hotel without the use of crutches or stick, and was able after that first bath to discard the use of his crutches, and after three or four more walked freely and well without a stick. He had a course of twenty-one baths, and walked daily five or six miles at a stretch with comfort, all his pain in both nerves having totally disappeared.

CASE C.—W. S., aged 42, consulted me as to the advisability of taking these baths on account of locomotor ataxia of three years' standing. When I first saw him he was unable to walk 150 yards without resting and with the aid of a stick, and could not go up any steps without the assistance of a rail or stick. He suffered markedly from diplopia. I advised him to come to Harrogate and try the effect of these baths. He had a course of twenty-four at the rate of four a week, and when he left the place was able to walk four miles at a stretch, and could mount the stairs of a three-storey building in comfort. His sight, also, had greatly improved. He told me that after his first bath he was able to put his hands behind his back and dip his head in a basin of water, a thing he had not been able to do for nearly three years. The improvement in this case still continues, although two months have elapsed since he took a bath.

CASE D.—E. G., a keen sportsman, aged 66, consulted me in September about a gouty stiffness in both his hands, the wrists, and joints of the fingers. I advised him to try the effect of the Greville bath. He had a course of six, and left with perfectly free movement in all the joints previously affected. This improvement, he told me at the end of last month, is still maintained.

CASE E.—Mrs. I., aged 55, suffering from chronic rheumatism, affecting the muscles of the calves, the knee, and ankle-joints. She had a full course of the sulphur water and baths, with marked improvement so far as muscular pain went, but the joints did not answer so readily to the sulphur bath as is usual in most cases. I therefore tried her with four of the Greville baths. The swelling and stiffness decreased rapidly with each bath, and she left the place, as she said, completely cured. The extraordinary relief from pain which all my patients have expressed after the first of these baths, and that this relief is maintained during the two or three days intervening between each bath, is to my mind one of its most remarkable features.

FILARIA DEMARQUAII IN ST. LUCIA, WEST INDIES.

By OTHO GALGEY, M.R.C.P.I.,
Colonial Assistant Surgeon.

IN the BRITISH MEDICAL JOURNAL of December 25th, 1897, Dr. Manson draws the attention of the profession to the different varieties of the filaria sanguinis hominis found in the blood of man in tropical countries, and enumerates six embryo nematode worms discovered up to date. These are filaria nocturna, filaria diurna, filaria perstans (Africa), filaria Demarquaii (St. Vincent), and two possibly new filariæ recently met with in Demerara, which he grouped together under the provisional name, filaria Ozzardi (British Guiana). These minute worms present such different characteristics under the microscope that Dr. Manson and other authorities believe them to be distinct species.

Filaria Demarquaii is described in the same article, and Dr. Manson states that he found it only on blood slides sent to him by Dr. Newsam, of St. Vincent.[1] He failed to find it in blood forwarded to him from St. Kitts and Montserrat. Dr. Daniels, in his recent article in the *Journal of Tropical Medicine*, confirms this by saying: "I have not found the filaria Demarquaii in any of the West Indians (102 cases), including 6 from St. Vincent. These statements prove that F. Demarquaii is not universally distributed throughout the West Indies, and that not very much is known respecting it; in fact, the only literature on the subject which I have been able to discover are the articles above mentioned in the BRITISH MEDICAL JOURNAL, and a short reference to it in the *Manual of Tropical Diseases*, also by Dr. Manson.

The study of filiariasis is exceedingly interesting and absorbing, and, therefore, the discovery of another habitat where one of the new varieties of bloodworm is found to be prevalent will possibly prove of some interest to those engaged in the study of the geographical distribution and pathology of these nematodes.

Filaria Demarquaii is to be found in the blood of many natives of this island. I have several beautiful specimens of the worm. It is much smaller than filaria nocturna. The body is long and slender, with a sharp tapering tail. The head is blunt, and on a few specimens I have noticed a small fine filiform projection, like the sharp tongue of a serpent. The appearance of filaria Demarquaii under the microscope is exceedingly graceful and attractive, contrasting favourably with the thicker and coarser filaria nocturna, at least of the West Indian variety. The size of F. Demarquaii varies in different individuals, and sometimes even on the same slide worms of several sizes are found. All have the characteristic sharp tail, but some are exceedingly long and slender, others medium-sized, and others again very tiny, approaching in size filaria Ozzardi (British Guiana), specimens of which were kindly forwarded to me by Dr. Daniels. From the difference in bulk observed in the sharp-tailed worm (which, after all, may be merely the result of different modes of preparation) I am inclined to believe that all are filaria Demarquaii; that is to say, that the filaria Demarquaii of St. Vincent, and that discovered by me in St. Lucia, and the sharp-tailed form of filaria Ozzardi (British Guiana) are identical. This is a point of extreme importance in the study of these interesting blood worms.

Filaria nocturna and filaria diurna observe a regular periodicity, one being present in the blood during the night only, and the other being found in day blood solely. Filaria Demarquaii has hitherto been supposed to be present in the peripheral blood both day and night, and therefore has no periodicity. Some of my slides tend to disprove this, as several taken in the afternoon contain no embryo worms, whereas those procured at night from the same individual show many specimens of filaria Demarquaii. Therefore, it is legitimate to conclude. F. Demarquaii observes an uncertain or occasional periodicity.

Filaria Demarquaii has no sheath, neither has filaria Ozzardi (British Guiana). This is an additional point of resemblance between the two.

Filaria nocturna is exceedingly rare in this island, and elephantiasis very uncommon. This is another link in the chain of evidence proving the dependence of elephantiasis on the presence of filaria nocturna in a locality. I shall, however, reserve my remarks on this subject for a future occasion.

Nothing is yet known as to the pathological *rôle* played by filaria Demarquaii.

The points I wish to lay stress on at present are the prevalence of filaria Demarquaii in certain parts of St. Lucia, and the close similarity that exists between filaria Demarquaii and the sharp-tailed form of filaria Ozzardi (British Guiana); so exactly do they resemble each other in every particular that I incline to the conclusion that they are one and the same species.

NOTE.

[1] Dr. Manson has subsequently found the same, or a similar, blood worm in a native of New Guinea.

A NOTE ON DRACUNCULUS MEDINENSIS.

By Major V. HARINGTON, I.M.S.,
Ulwur, Rajputana, India.

In, I think, 1896, I saw a very interesting note in the British Medical Journal relating to the metamorphosis and embryo life of the dracunculus Medinensis, but there was one point in the letter I cannot help thinking is open to such doubt as to be misleading as a statement of proved fact. This point referred to the wonderful instinct of the immature parasite, which, on being taken into the system through the alimentary canal, enabled it to find its way to the various situations in the connective tissue of the body in which it is usually found as a full-grown and mature parasite. This matter has, I know, been much discussed, and I see that the late Dr. T. S. Cobbold, in Quain's *Dictionary of Medicine*, inclined to a similar view, that is, that the parasite was introduced into the body with the drinking water. At the same time my own experience, based on the study of a large number of individual cases, leads me to differ entirely from this opinion.

Some years ago I happened to be stationed in a part of the country where guinea-worm was prevalent, and in addition to other cases I took careful notes of some 200. These notes, I regret to say, have I fear been consumed, together with other papers, by those curses of India, the white ants, so I am unable now to give exact figures. Amongst these, in about 75 to 80 per cent., the parasite was found in the lower extremity and the greater number below the knee; the other 20 to 25 per cent. were in the following order of position—the back and waist and the upper extremity, and head, neck, and groin. With the exception of a few which had penetrated into the connective tissue between the larger muscles of the calf and thigh, none of them were deep-seated; in fact, portions of the majority of them could generally be detected lying beneath the skin by the finger. The percentage of cases in the lower extremity would have been larger had it not been for a couple of bhisties (water carriers), out of one of whom I removed no fewer than seventeen guinea-worms during one period of admission into hospital, all but three of them being on the back and loins along the line of contact of his mussuck (leather water-bag). One case of guinea-worm of the scalp and neck I traced to the fact of the man fetching water for his garden from a filthy pond and carrying it in a gurrah (earthenware pot) on his head, from which some of the water splashed over on to his head and neck. The case in the groin was interesting; it occurred in a sepoy who some months previously had been with some officers out shooting. One of the birds fell into a dirty tank only used for cattle and buffaloes, and known to be full of embryo guinea-worms. He went in up to the waist, wetting his dhoti or loin cloth, which he neglected to take off and dry. The result was a guinea worm in the superficial upper part of the groin; the wet dhoti evidently retaining this parasite, and giving it the time and opportunity for making its entrance through the pores of the skin. Those persons in whom the dracunculus was found in the lower and upper extremities were chiefly villagers, who were in the habit of taking their cattle down to water to stagnant ponds, in which they waded and sometimes washed (?) The cases of the bhisties were most marked, the line of contact of the mussuck with the bare back being the chief part attacked, and the few in the legs must have been caused by the entrance of the parasite while the men were standing in the water filling their mussucks. One of the men, it was discovered, had been in the habit of getting water from a stagnant pool near for garden and cattle watering purpose, which water was not used for drinking.

Physiologically speaking, I would ask a careful consideration of the anatomical conditions of the abdominal cavity. However great the instinct of the parasite may be, the difficulties she would have to encounter in order to find her way to the lower part of the leg would, one would consider, be anatomically almost insurmountable. How would she pass the powerful barriers between the abdomen and the thigh? and again those at the knee? Further, should she elect the upper extremity, the passage upwards past the thorax would be fraught with many almost insuperable obstructions, and it would be strange indeed if some did not fail by the way; yet I have heard of no cases in which a guinea worm has elected either from choice or force of circumstances to remain and bring forth her viviparous progeny in the cavities of either the abdomen or the thorax. All cases seem to point to the connective tissue somewhere in the neighbourhood of the skin as her favourite place of abode, and comparatively few cases are recorded in which deeper structures are selected, and even then it is only in the connective tissue between muscles. The structure of the muscles is seldom affected, and when that does occur, it is usually the result of the inflammation and suppuration set up by the presence of the worm or broken portions of it.

As far as my experience goes I hold to the opinion of Dr. Carter and others that the sexual maturity of the dracunculus is attained previous to its entrance into the human body, and that the female penetrates the skin through its pores when she gets the opportunity and develops in the connective tissue beneath it, giving no sign of her presence until near the full time of her gestation. In fact I am inclined to go still further, and to doubt whether the young dracunculus, even if taken into the alimentary canal in drinking water, does, or could, come to maturity; but I am quite open to conviction on this latter point should any reliable proof or even good circumstantial evidence be brought forward in favour of the theory.

A PRINCIPLE OF TREATMENT OF INFECTED FOLLICLES OF THE SKIN.

By ALFRED EDDOWES, M.D., M.R.C.P.,
London.

FOR clinical purposes we may look upon the follicles of the skin, whether occupied by hair or not, as elastic tubes guarded by funnel-shaped valves, the latter opening downwards, and being composed of inverted horny substance, such as forms the outer layer of the epidermis. It is unnecessary to consider the minute anatomy of the various layers of the epidermis in the follicles, as they are not of essential importance with regard to the action of local remedies.

The satisfactory results which have followed the application of saturated—that is, 97 per cent. solution of pure carbolic acid, especially in such follicular diseases as acne and sycosis, led me to make observations with the view of determining the exact condition of a diseased follicle which responded most favourably to the employment of this powerful antiseptic. In the case of superficial vesicles and pustules such a severe remedy was obviously unnecessary, and in deep indurated acne, as might have been expected, the treatment proved to be useless or nearly so. The best condition seemed to be one indicating existence of inflammation, namely, a slight redness and tendency to bulge or "pout" at the mouth of the follicle. If the horny layer covering the mouth of a follicle in this condition be punctured a quantity of serum or pus escapes, which is too much to be accounted for by a mere emptying of the mouth of the follicle; it must come from the deeper parts of its canal; in other words, there must have been a hydraulic distension. It is at the time of the existence of this distension that we have our opportunity, I believe, for getting antiseptic remedies into the depths of the follicle by endosmosis. The wider the distension of the follicle and the thinner the contained fluid, the better must be our chance of doing so. That phenol penetrates quickly into such a distended follicle is readily proved. Apply a little, let it rest half a minute, wipe it off and prick the vesicle, when usually a quantity of fluid will escape of the colour of milk, showing that the serum has already partially coagulated. It is when effusion has taken place rapidly into a follicle, and while a back pressure exists, that we may expect our remedies to reach, even if only in small percentage, to the depth of the follicle, if the strain have caused the hopper-shaped or funnel-shaped valve to give way, and bulge in the form of a slack vesicle at the follicle's mouth, the previously distended tube has probably collapsed at its deeper part, and we have lost our chance for the time being.

In practice, therefore, our object will be excite reaction in the follicles by ointments, liniments, plasters, or even medicated poultices, and just at the moment when the effusion is most active, to seize the opportunity to apply such remedies as carbolic acid in small quantity and with due care, to the mouths of a reasonable number of infected follicles at a time. In follicular diseases presenting special difficulties due to the manner of invasion by the parasite, of which small-spored ringworm is a good exampre, there is perhaps no greater mistake than to apply daily irritating remedies which just fall short of bringing about a cure. They excite a chronic dermatitis, which increases the amount of dead epidermis, and thereby favours the growth and spread of the parasite. There was much wisdom in the old woman's application of remedies such as poultices, to "bring disease to a head" as she expressed it.

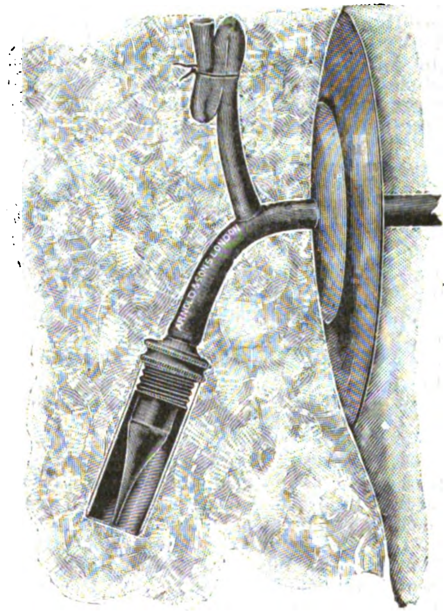
In conclusion, to make my view possibly clearer, let me compare a follicle to a tightly-corked bottle. Let us suppose that the cork is incompressible and represents the hair, and let us suppose that the neck of the bottle is composed of living tissue capable of blistering internally or throwing out effusion which will lift it from the surface of the cork; and that the sealing wax represents the inverted plug or horny layer. It is obvious that if the horny layer representing the seal can be penetrated—without being burst—by a strong parasiticide, the latter has the most favourable opportunity for diffusing itself through the serum, which is represented by the fluid between the neck of the bottle and cork. Just when Nature is sending serum and leucocytes through the floor and walls of our follicles, does it not seem reasonable that we should give our best remedies a chance of soaking through the roof?

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

VALVULAR DRAINAGE TUBES IN EMPYEMA.

WITH reference to Dr. Hutton's interesting article in the BRITISH MEDICAL JOURNAL of October 29th, 1898, on the treatment of empyema by means of a valvular drainage tube, I would wish to say that I have been using since 1895 a contrivance almost identical in principle, made for me in that year by Messrs. Arnold. Its form is shown in the accompanying figure. There is a branch which, when the tube is *in situ*, is kept closed by a ligature. To wash the valve by a stream of hot boracic solution the branch is opened and the drainage tube is clamped between the branch and the chest. I found this necessary, as the valve tended to get fouled by dried purulent matter on its edges and was thereby rendered faulty. I used it first in March, 1895.



The case was one of acute right pleurisy, which was seen by Dr. F. Hulke, of Deal, in consultation with me several times. There was a marked tuberculous tendency in the family; and the effusion, which was excessive, and giving rise to great respiratory distress, rapidly became purulent, and, after paracentesis, very fœtid. The fœtor soon yielded to saturated solution of boric acid, with which I washed out the pleural cavity. There was a large accumulation of air in the pleura, partly due to the inefficient sealing of the flange in the first attempt, and partly to gaseous evolution from the decomposing pus. This was not driven out during expiration so happily as in Dr. Hutton's cases. In fact, I found it necessary to insert the finest needle of Dieulafoy's aspirator into the second interspace, and then pump out the air which had accumulated in the apex. This I did to the extent of six syringefuls at the time before the patient complained of a feeling of constriction of the chest. The patient made a very satisfactory recovery in every respect.

The point of greatest importance, which Dr. Hutton hardly emphasises sufficiently, is the necessity for the exclusion of air, or its removal if necessary, not only on antiseptic grounds, but on purely mechanical principles. In simple uncomplicated empyema this is the main factor in the continuance of the inflammatory process, as the air which is sucked in through the intercostal opening during the first steps of the operation, as well as that gas which may be evolved during decomposition of the discharges, accumulates in the dome of the pleura at a level higher in all positions of the thorax—recumbent or sitting—than the opening for the tube, and is not driven out to any great extent during expiration, but compresses the lung before it. The presence of air in this position, even in small quantity, by keeping apart the inflamed surfaces, favours the continuance of the process of purulent exudation, and consequent fibrinous deposit on the lung. In such cases the three main points to be achieved are: (1) Efficient drainage; (2) exclusion of air; (3) effective preservation of negative pressure in the thorax during inspiration. All of these can be alone secured by means of a valvular drainage tube.

Ash, Dover. E. A. C. Baylor, M.D.Dub., B.Ch.

HYPERPYREXIA IN SUBACUTE RHEUMATIC FEVER.

On October 3rd, 1898, at 3.30 a.m., I was sent for hurriedly to see a male patient, aged 32, who had been for sixteen days ill with subacute rheumatic fever. There was nothing remarkable about the case except that it was a third attack, and that he was very nervous as to his heart being affected, and had been very excitable in manner and speech within the previous few days.

When I saw him he was acutely maniacal, shouting, gesticulating wildly, throwing about the bedclothes, and with great difficulty kept in bed by two men. I was told that the pains in the joints had ceased in the afternoon, and sweating, before profuse, had stopped later. Thinking he was better he wanted to get up in the evening, but about 11 p.m. he became excited, gradually incoherent in talk, and about 1 a.m. delirious.

His temperature was found to be 106.4° F., the pulse 132. Immediately we began the use of cold by applying a number of towels half wrung out of cold water over the head and upper part of the spine. Soon there was a plentiful supply of ice available, and this was used to cool the water and also in pieces of waterproof to the spine and abdomen. All this time and till 6 a.m. the delirium continued, and it was extremely difficult to get the applications kept on, as he struggled wildly against the two men holding him down in bed. He fell quiet about 6 a.m. The temperature, taken half-hourly, kept rising to 107.4° F.

At 6.30 a.m. I gave him 10 gr. of antipyrin, and this dose was repeated every half-hour for nine doses.

At 6.30 a.m. his nose began to bleed copiously, and this kept on less or more till 4 a.m. next morning (that is, October 4th). When the blood clotted itself, or was made to do so by turpentine, he at once blew the clot from the nostrils because he could not breathe by the mouth.

At 8 a.m. the district nurse came and brought an icebag and some waterproof. We now got the icebag applied to his head and waterproof cloths with ice over the spine and abdomen, and kept them on till 11 a.m., when his temperature was 106.4° F. It had thus risen and fallen 1° F. during the seven and a half hours.

I left at 11 a.m. and came back at 12.15, and on taking his temperature was agreeably surprised to find it 101.4° F. It kept from 101.4° F. to 102° F. till October 10th, when it fell to normal, and convalescence thenceforward was uninterrupted.

Anstruther. Robert T. Ferguson, M.D.

PERSISTENCE OF BRANCHIAL CLEFTS.

In December, 1898, I was consulted by Miss M. C., suffering from chlorosis. In the course of examination my attention was called to two small wart-like projections, situated one on either side of the neck, and about half-an-inch in a direct line above the sterno-clavicular joints. These proved to be two small fistulæ, from which quite a quantity of mucus was secreted. I was informed that they had been present from birth, and that they always discharged in damp weather, and also when cold water was used for washing. At other times they were dry. The curious feature of the case is that the condition is eminently a family one. Four members of the family in three generations, and all females, have presented the same symptoms (all congenital), as thus:

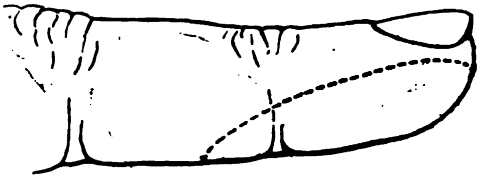
Mrs. M. P., grandmother. One fistula, right side of neck.
Miss M. C., granddaughter. Two fistulæ, as above.
Miss A. C., granddaughter. One fistula, left side of neck.
Miss F., great granddaughter. One fistula, left side of neck.

I did not probe to see whether there was an internal opening.

Alfred Ellis Vaughan, L.R.C.P.E., L.R.C.S.E., etc.
Crewe.

MINOR CONSERVATIVE SURGERY.

E. T., aged 23, came to me on the evening of October 7th, 1898, having twenty minutes previously, with a sharp clean knife, cut off the palmar surface of the middle finger of the left hand, from a point ¼ inch above the last joint down to the edge of the nail on either side, as indicated by the dotted line. He picked up the piece and replaced it, binding it with a clean piece of rag. Thinking I might save the part by means of even coaptation and warmth, I introduced two aseptic silk sutures to steady the piece, applied even pressure, and dressed the wound with iodoform and blue wool. Sensation was lost for seventeen days, and there was a good deal of ecchymosis; but as this became absorbed sensation gradually returned, and the finger in five weeks presented a nearly normal appearance, which has since become quite normal. No pus whatever formed, and no pain was felt after the first three days.



Woolacombe, North Devon. Richard Cresswell.

OPERATION FOR ELEPHANTIASIS OF THE VULVA.

Dr. William Renner, in the British Medical Journal of September 4th, 1898, gives notes of a case of elephantiasis of the vulva weighing 6 lb. 10 oz. Manson (*Tropical Diseases*) states that elephantiasis of the labia or of the clitoris "may attain a great size, 8 lb. or 10 lb., or even more." I have removed—in the Civil Hospital, Bijapur—an elephantiasis of the vulva that must have weighed quite 5 lb. or 6 lb. (I unfortunately have no record of the exact weight).

Dr. Renner makes no note of how he controlled hæmorrhage during the operation. Perhaps in his case, as only one side of the vulva was affected, he found no difficulty in surrounding the base of the tumour with a rubber band. In the case I refer to, however, the whole margin of the vulva was affected, and it was found impossible to adjust any compressor or rubber band. I therefore had recourse to an expedient which I found very satisfactory, not only in controlling the hæmorrhage, but in enabling me to get closer to the pubes than if there had been a rubber band compressing the base of the tumour.

In the first place the tumour was kept elevated for some time beforehand. Then a stout rubber drainage tube was applied as tightly as possible to the base of the tumour. The first incision showed this to be quite ineffectual, the wound bleeding to an alarming extent from vessels on both the proximal and distal sides. It seemed that unless some other means of controlling the hæmorrhage could be adopted the operation would have to be abandoned. The plan adopted was as follows: The hæmorrhage from the wound was stopped by forceps and pressure; the rubber band was removed, and the isthmus of the tumour, which though wide was not thick, was sutured from side to side, each suture interlocking with the one before. The sutures were passed by means of a stout-handled needle, and the strongest silk was used. A space of about half an inch was left between them and the pubic arch. The ligatures were pulled as tight as possible so as to strangle the parts encircled by them. Then the isthmus between this row of ligatures and the pubic arch was incised bit by bit, the vessels on the proximal side being secured as I went along. The distal vessels did not bleed. The whole tumour was thus removed with very little hæmorrhage, and, finally, the vagina was sutured to the skin. The operation was performed on July 9th, 1897, and the patient was discharged soundly healed on August 1st, 1897. It was impossible to identify the clitoris, and it was removed somewhere embedded in the tumour. The patient was nominally a coolie, really a prostitute, Hindu by caste, aged 25 years. The tumour had been in existence five years. The following advantages may be claimed for this plan of suturing the isthmus:

1. Perfect control of the hæmorrhage. The vessels on the proximal side only of the wound bleed, and never more than two or three of these need be cut at the same time.
2. As the incision is closer to the trunk than if a rubber compressor were used, there are fewer vessels to tie.
3. The tumour can be more thoroughly removed, and the edges of vagina and skin are left exactly right for suturing to one another.

Poona. J. B. Smith, M.B., Capt. I.M.S.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

UNIVERSITY COLLEGE HOSPITAL.

A CASE OF SEVERE HÆMORRHAGIC DIPHTHERIA, WITH MARKED MEMBRANOUS DEVELOPMENT.

(By H. Batty Shaw, M.D., M.R.C.P., Resident Medical Officer, late Assistant to the Professor of Pathology, University College.)

A. F., a well-nourished girl, aged 9 years, was admitted on November 16th, 1897, suffering from difficult breathing and a swollen neck.

History.—Two years previous to admission she had had throat trouble, and five weeks before admission her tonsils were enlarged, and removal of them had been advised. On November 12th she complained of sore throat and was sick; towards the evening her condition was worse, and she began to feel ill. On November 14th the pain in the throat had increased, and there was some sanious discharge from the nose. The right side of the neck was swollen, and breathing became difficult and was performed through the nostrils only. On November 15th, at 9 A.M., she was seen by Dr. P. J. Edmunds. The breathing was largely nasal. On the right side of the neck was a large boggy swelling in the neighbourhood of the angle of the jaw; the mouth could be opened for only ½ inch. The right tonsil was greatly enlarged, and blocked the faucial aperture, and the mucous membrane covering it looked bright pink. No membrane could be seen anywhere; the appearance was so like that of quinsy that the mass was promptly incised, but no pus escaped. On November 16th the appearance of the mouth had entirely changed, and a sloughy-looking deposit was seen covering the roof of the mouth, and even reaching the right upper gum. The mucous membrane showed a pinkish edge running round the margin of the deposit. The patient looked very ill, and was breathing with great difficulty. She was then brought to the hospital.

Condition on Admission.—She looked extremely ill, had headache and marked recession of the chest. The boggy mass at the side of the neck obscured the outline of the jaw, and reached from the mastoid process to the neck in front; there was sanious discharge from the nose. The mouth was held open with difficulty; it was quite impossible to define the faucial aperture, even with excessive downward pressure of the tongue. The space was occupied instead by a blackish-green sloughy mass which entirely obscured the soft palate, and crept along the hard palate, though not adherent to it, as a pointed structure, looking very like the tongue of a bird as it lies on the roof of the mouth. The mass rested close upon the tongue so that neither uvula, tonsils, nor pharynx could be seen. Laryngotomy was performed, and antitoxin was administered. Recovery from the anæsthesia was slow, but satisfactory. The patient, however, died from heart failure eight or nine hours after the relief of the obstruction.

Remarks.

I am indebted to Dr. Ringer for permission to publish the notes of the above case, and to Dr. Edmunds for the report of the case before the child came under hospital treatment. The case is interesting from the likeness it bore in the earlier stages to an ordinary severe quinsy. At the necropsy the peculiar appearance in the mouth was found to be due to the presence of a very thick diphtherial membrane, which, as mentioned above, was closely adherent to the soft palate, but merely overlay the mucous membrane of the hard palate without being attached to it, as shown in the accompanying sketch. The membrane was present also on the pharyngeal wall and on the laryngeal mucous membrane as far as the vocal cords; the trachea was quite free from it. The great feature in the *post-mortem* appearance was the remarkable thickening of the soft palate due both to œdema of the tissues and to the existence of the diphtherial membrane; its thickness was as much as two-thirds of an inch. The membrane extended over the uvula, and repeating its form gave the appearance of two uvulæ, one placed above the other (see sketch). It was impossible to define the muscular structure of the soft palate macroscopically, the membrane and soft palate being quite continuous, though a line of separation could be seen in the upper part; the dark areas did not correspond to muscle substance, but to areas of extravasated blood.

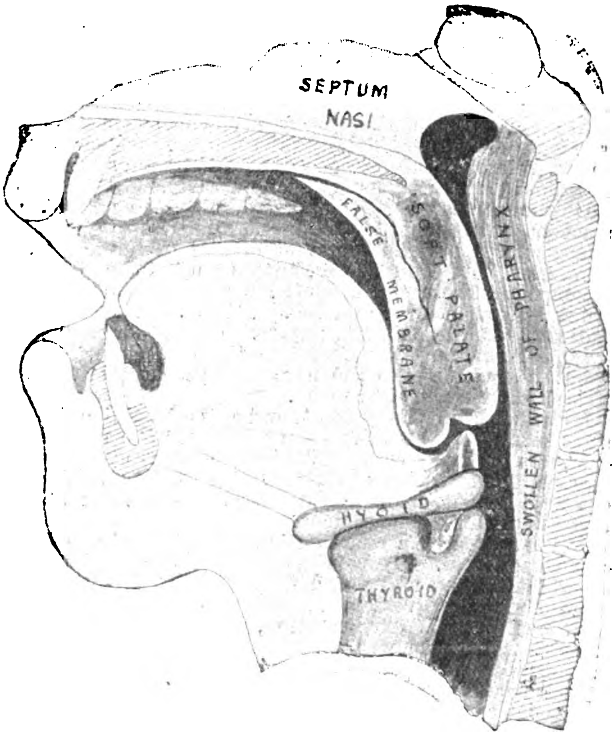


Fig. 1.—Vertical section of mouth as far as the hyoid bone showing the enormously thickened soft palate and pharyngeal wall.

The pharyngeal wall was greatly thickened in part owing to membranous deposit, in part to extravasated blood. The epiglottis and aryteno-epiglottidean folds were swollen.

During the operation there was some difficulty in separating and defining the infrahyoid muscles, as they seemed to be injected with blood. Sections were made of the muscles, and the muscle fibres were widely separated by blood, which had in places torn the muscle fibres across. Opposite the right tonsil was a large lymphatic gland, which was also stained darkly by escaped blood.

Bacteriology.—A film taken directly from the throat and stained by Gram's method showed large and small staphylococci, streptococci, and bacilli of two kinds, one short and stout and uniformly stained, the other less uniformly stained, more slender, and with the appearance of two spores, one at either end. A thirty-six hours' growth on agar stained in the same way showed almost a pure growth of bacilli, which had the arrangement so common with the Klebs-Loeffler bacillus, and they were irregularly stained and in some cases showed a tendency to clubbing. The same tube was examined after five days' cultivation, and then a staphylococcus had overgrown the diphtheria bacillus, only a few of the latter being found, and then very degenerate in form. Complete microscopic sections were made of the soft palate and its attached membrane. Very large pockets of staphylococcic and streptococcic growth were found on the surface of the membrane, some were even found in the depths of the tissue. Large colonies of diphtheria bacilli were also found in other spots, but none were demonstrable in the deeper part of the section, nor were any found in the gland above mentioned, in the muscles which were the seat of such extensive hæmorrhage, or in the kidney.

GLASGOW ROYAL INFIRMARY.

TRAUMATIC SEPARATION OF THE COSTAL EPIPHYSES.

(By JAMES BATTERSBY, M.R.C.S.Eng., L.R.C.P.Lond., etc., Senior Demonstrator of Anatomy, St. Mungo's College, Glasgow; late House-Surgeon to the Infirmary.)

THE case, particulars of which are here related, was admitted under the care of Mr. H. E. Clark, Senior Surgeon to the Infirmary, who has kindly allowed me to report it. Its special interest lies in the fact that on *post-mortem* examination a separation of the epiphyses of the heads of four ribs was found—a form of epiphysial separation which, according to Mr. Poland in his recent work on *Traumatic Separation of Epiphyses* (page 880), has not been recorded.

On the morning of November 3rd, 1898, the patient, a lad aged 14, while at work in a coal mine in the vicinity of Glasgow, was buried under a fall of coal from the roof. On admission, three hours later, he was found to have sustained a compound fracture of the left leg, numerous bruises of the trunk and right arm and leg. His general condition was indicative of internal hæmorrhage. On further examination, a large hæmatoma was found in the right loin, extending from the lowest rib to the iliac crest; a catheter was easily passed, drawing off clear urine.

Mr. Clark saw the patient, and was of opinion that the right kidney had probably been ruptured; the patient, however, was too much collapsed to permit of any operative interference. Transfusion of saline solution was performed without any benefit, and the patient gradually sank and died seven hours after the accident.

At the *post-mortem* examination no rupture of any internal organ was found. I carefully examined the vessels entering the right kidney, and found them intact. No injury to the large abdominal vessels was discovered. A large retroperitoneal blood extravasation, infiltrating the lumbar muscles and fasciæ, was present. A solution of continuity of the four lowest ribs of the right side was found, which at first sight looked like fracture. The closeness of the lesions to the bodies of the vertebræ suggested further investigation, when I found that the heads of these ribs had been torn off along the epiphysial line. The separated epiphyses were entirely cartilaginous, ossification not usually commencing in this situation until after puberty. One of the ribs, which I have retained, has been seen by Mr. Clark, who agrees with me regarding the separation. The right lumbar transverse processes were broken off about midway between the base and he tip.

It would seem that the hæmorrhage had proceeded from a laceration of the lumbar and ascending lumbar veins. The latter vein normally passes upwards in front of the transverse processes of the lumbar vertebræ, that is, in the line of fracture running across these transverse processes.

It is to be noted that in regard to history, symptoms, and physical signs, this case simulated one of ruptured kidney.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—A discussion on The Treatment—Medical and Surgical—of Acute Inflammation of the Vermiform Appendix will take place at the meeting of the Society on Friday, February 3rd, at 8.15 P.M., in the Society's rooms at the West London Hospital, Hammersmith, W. The discussion will be opened by Dr. Seymour Taylor and Mr. McAdam Eccles, and among others the following have promised to take part: Dr. Donald Hood, Mr. C. B. Keetley, Dr. Stanley Smith, Mr. L. A. Bidwell, Dr. H. A. Caley. Any medical man is invited to attend as a visitor if not already a member of the Society.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

J. F. PAYNE, M.D., President, in the Chair.

Tuesday, January 17th, 1899.

SEQUEL TO A CASE OF PAPILLIFEROUS CARCINOMA OF THE THYROID GLAND.

MR. A. E. BARKER recounted the sequel of a case which he had already recorded in the Society's *Transactions*. The history extended over the length of eighteen years. It afforded an illustration of Virchow's dictum that the more complex a tumour was in structure the less malignant its course. The history as far as 1896 had already been recorded, and was noteworthy in the succession of recurrences which ensued in the cervical glands, these being treated by a series of operations. In January, 1897, a further recurrence took place above the manubrial notch leading to compression of the trachea. This growth, which was markedly cystic, was excised, but only partially, in consequence of its close connection with the larynx; nevertheless, the wound healed by first intention. A recurrence in the posterior triangle was subsequently removed. The patient remained well until August of 1898, when an extensive hæmatoma formed in the left side of the neck; this occasioned death from apnœa. The source of the hæmorrhage was probably some of the villi or intracystic processes left behind in the partial removal of the tumour about the larynx.

Mr. J. BERRY observed that in its duration this case was unique, though Wölffler had recorded some of a similar nature, and one or two had since then been noticed in foreign literature. The ordinary carcinoma of the thyroid ran its course in a few weeks, or within a year and a-half, although the speaker knew of a case extending to two and a-half years, and Sir Felix Semon had seen one extend to three. One difficulty attaching to operations in malignant disease of the thyroid was adhesion of the parts to the pharynx, a condition not admitting of diagnosis, and only discoverable upon operation. He inquired of Mr. Barker what the relation of the sterno-mastoid was to the tumour, as well as that of the carotid artery; if the artery be found displaced over a thyroidal enlargement the latter was probably benign in character. The absence of any affection of the recurrent laryngeal nerve was noteworthy.

Mr. S. G. SHATTOCK referred to a case of Mr. Bryant's which furnished an exception to the statements which commonly held true that the more highly differentiated a tumour the less malignant course it ran, and that the usual duration of thyroidal carcinoma lay within one year and a-half. The primary tumour was removed from the vicinity of the thyroid, to the right lobe of which it was attached, in May, 1896; recurrences had been removed on three occasions, the last in April, 1898, since when the patient has been quite free. Histologically, nevertheless, the recurrences in the glands were of the spheroidal-celled kind, without lumen or colloid. As contrasted with this, thyroidal carcinoma which presented the proper thyroidal structure and secreted colloid, might become widely disseminated and retain the same highly differentiated structure in the metastases.

Mr. BARKER, in reply, stated that the primary tumour, which eventually occupied the whole side of the neck, arose in front of the sternal origin of the sterno-mastoid muscle, which was incorporated with it, though this incorporation might have been inflammatory. The carotid artery lay directly under the growth. There was a certain degree of hoarseness and weakness of the voice, possibly due to involvement of the recurrent laryngeal nerve; that the sympathetic cord was involved appeared from the greatly increased pulse-rate.

FIBROMA MOLLUSCUM OF THE SKIN AND BRACHIAL PLEXUS.

Mr. T. CARWARDINE exhibited lantern slides of the above case, which concerned a man aged 25. The cutaneous tumours were congenital; they were, moreover, hereditary, the patient's mother and her father, as well as other members of the family, being similarly affected. Beside the large number on the skin, there was a considerable swelling above the clavicle; this was exposed by operation, when it was found to be connected with the outer cord of the brachial plexus, from which it was enucleated.

The **President** had recorded a somewhat similar case, in which the axillary tumours on the nerves closely simulated enlarged lymphatic glands. Recklinghausen had held that the cutaneous tumours arose in connection with cutaneous nerves, but this was not always the case. Both nervous system and epidermal appendages were of epiblastic source, and the growth of such tumours about the nerves and about the sweat glands or hair follicles was a growth in the connective tissue of homologous structures. In his case intense neuralgia was present.

Mr. **S. G. Shattock** had adverted to the possibility of such tumours on the nerves arising in the end organs of the nervi nervorum, which had first been observed by Mr. Victor Horsley; this he had negatived in so far that the smallest of such tumours were devoid of the lamellar structure which was so characteristic a feature in the end organs.

Crushing Fracture of the Cervical Spine.

Dr. **H. P. Potter** exhibited the spine of a man, aged 82, who was struck on the occiput in the fall of a high brick wall twenty years before his death, which occurred from senile decay. After the accident he remained unconscious for two hours; fixed apparatus was adopted, and he completely recovered, though a temporary partial hemiplegia of the right side ensued. The cervical spine was markedly curved with convexity backwards, and the finger introduced into the mouth failed to reach the back of the pharynx. After death the vertebræ involved in the crush were found firmly ankylosed by bone; the vertebral canal, though unnaturally curved, was not encroached upon, and the cord was uninvolved.

Cystic Suprarenal Bodies.

Dr. **R. Crawfurd** showed the left adrenal of an old woman, in whom there were no symptoms arising from suprarenal disease. The organ was almost replaced by a cyst full of turbid fluid without hooklets. The cyst had arisen, by degeneration, in a solid tumour of the adrenal; the structure of the growth was that of an adenoma, which possibly itself arose in an accessory gland. Hydatid and blood cysts were known, but those of the kind shown by the author were less common.

Dr. **H. D. Rolleston** showed sections of a cyst the size of a cherry on the right adrenal body. The contents were tenacious. Microscopically the walls of the cyst were composed of well-formed fibrous tissue; on the inner surface of this fibrous capsule there were a few epithelial cells like those of the adrenal body. The cyst was probably due to the softening and liquefaction of an adrenal adenoma. Adrenal adenomata composed of the cells of the organ in a state of advanced fatty change and derived from the cortex were not uncommon, and these sometimes underwent softening. They were surrounded with a fibrous capsule such as was seen in the specimen in question.

Tuberculous Cholangitis.

Dr. **Morley Fletcher** reported the case of a child 6 years of age who died of general tuberculosis; no jaundice was present. At the necropsy the intestine was found ulcerated; the liver weighed 23 ozs. Miliary tubercles were present in the substance of the liver and beneath the capsule. Scattered, moreover, through the organ were small cavities the size of peas filled with bile-stained material. The author took the following view of the lesions: a recent infection with tubercle bacilli had occurred by way of the hepatic artery; a previous infection had arisen by way of the portal vein from the intestinal lesions, the tubercles being in the portal spaces; the tubercles in the latter situations had led to infection and perforation of the bile ducts, the perforation being followed by a wider dissemination of the infection to the other biliary passages.

Multilocular Tumour from the Inguinal Region in a Female.

Mr. **H. Betham Robinson** exhibited a hernial sac which he had removed in the radical cure from a woman aged 23. When the sac was emptied during life it was noticed to be unusually thick, and this was found due to the presence of many small cysts in its wall; these were filled with a brownish fluid. The author suggested a source in remains of the Wolffian body, but thought the question a very obscure one.

Card Specimens.

Mr. **C. F. Beadles**: (1) Carcinoma and Fibrosis of Pancreas with fat necrosis; (2) Healed Perforation of Duodenum after passage of gall stone.—Mr. **T. Carwardine**: (1) Rectal Papilloma spontaneously discharged; (2) Enucleated Prostatic Myoma associated with vesical calculus.

CLINICAL SOCIETY OF LONDON.

John Langton, F.R.C.S., President, in the Chair.

Friday, January 13th, 1899.

Clinical Evening.

Localised Myositis Ossificans following Injury.

Mr. **J. Hutchinson**, jun., showed a woman, aged 35, who dislocated her elbow in 1890. Six weeks later there was bony thickening in front of the elbow beneath the brachial artery, in the brachialis anticus muscle, checking flexion and limiting pronation. A skiagraph showed that the humerus was free, and that the swelling was not due to displacement of the coronoid process.

Mr. **Eve** showed a large irregular bony plate removed from the vastus muscle following a kick by a horse on the thigh, attended by extensive hæmatoma. A skiagraph showed osseous growth separated by an interval from the femur. On cutting down a mass of true bone, not an ossifying sarcoma, was found. He thought it was an example of ossification in fibrous tissue from organised blood clot.

Enlarged Spleen with Thrill and Bruit.

Dr. **Crawfurd** exhibited a man with a typical filarial history extending over fifteen years under observation for eighteen months. At times a persistent thrill could be felt round about the umbilicus, which was intensified by pressure, the maximum point being just inside the spleen border, with a continuous venous hum over the spleen extending into the epigastrium. He discussed the various possible explanations of these phenomena.

Anterior Displacement of Tuberculous Carpus.

Mr. **H. J. Curtis** showed a young woman with anterior displacement of the carpus consequent upon tuberculous disease dating from 1895, the radius being most affected. The result was the formation of a false joint. Skiagraphs and stereoscopic photographs of the case were shown by Mr. Mackenzie Davidson.

Pemphigus of the Mouth, Pharynx, Larynx, and Skin.

Dr. **J. S. Richards** showed a man, aged 62, with a bullous eruption of the mouth, pharynx, larynx, and skin. A remarkable feature was that it had originated in the larynx, and had remained limited to that region for six months before attacking the skin. It began with a "roughness" in the throat, with cough and dysphagia, and he expectorated mucus tinged with blood. The mucous membrane presented numerous red patches which readily bled on being touched. After improving, a recrudescence took place in September.

Sir **Felix Semon** recalled a case which he had seen many years ago which illustrated the difficulty of diagnosis in these cases when the eruption did not extend to the skin. As the patient had a specific history it was thought to be due to syphilitic disease, but antisyphilitic treatment produced no effect. The conjunctivæ then became involved, with ultimate loss of sight in both eyes.

Progressive Muscular Atrophy after Measles.

Dr. **Batten** showed a case of progressive atrophy of the peroneal type after measles in a boy, aged 7. Three months after recovery from measles, which was followed by bronchitis and pneumonia, his mother noticed that he dragged his left foot in walking, and a few months later the right became similarly affected. The weakness had been progressive. Six months ago he began to lose power in the hands. There was no hereditary history. There was marked wasting of the muscles of both legs below the knee. He was unable to extend or dorsiflex the foot, which tended to assume the position of equino-varus in walking; he raised the legs high to prevent the toes dragging on the ground. The knee-jerks were present and equal. The recto-vesical functions were normal. There was marked wasting of the thenar, hypothenar, and interossei muscles. Sensation was normal; no fibrillary tremor. Electrical reactions under chloroform showed complete absence of response to faradism in all the affected muscles with diminished reaction to galvanism. Reference was made to other recorded cases of the kind in which changes had been found in the peripheral nerves and in the postero-median columns of the cord.

Dr. **ORMEROD** mentioned other cases of the kind occurring after measles, observing that, as the disease was a rare one, it was unlikely that the sequence was a mere coincidence.

COMPLETE HYPOSPADIAS WITH CLEFT SCROTUM.

Mr. **KELLOCK** showed two cases of complete hypospadias with cleft scrotum. The family consisted of seven other children, most of them males, two being daughters, all normal. The elder of the two patients was 6½ years old. The labour was attended by a midwife, who remarked that the genitals were much swollen. The patient was thought to be a girl and christened as such. Six months later, however, a testicle was noticed in the right labium. After miscarriage the mother had another child four years later, who also presented something abnormal about the genitals. This child was christened as a girl and was being brought up as such. There was a fairly well-marked penis. The under surface was marked by a groove lined by mucous membrane. The scrotum in both cases was divided. The perineum in both was well formed and strong. *Per rectum* nothing like a uterus could be detected. He remarked that the diagnosis of sex in the younger child would have been difficult had they not the older child as a guide. The pseudo-labia were evidently composed of dartos, as evidenced by its contractility to cold, etc. Both the children had perfect control over the bladder. The mother attributed the deformity to her strong desire each time she was pregnant to have a female child.

The **PRESIDENT**, Mr. **GODLEE**, Mr. **ROBINSON**, and Mr. **MORGAN** mentioned other cases of the kind, Mr. Robinson's cases being females and exhibiting marked precocity in sexual development.

PROGRESSIVE MUSCULAR ATROPHY OF UNUSUAL DISTRIBUTION.

Dr. **PERKINS** showed a man, aged 48, who had malaria sixteen years ago in America. Seven years ago he had a bad fall, and four years ago he noticed a sensation of coldness with alternations of heat around the loin, followed by gradually increased weakness in the legs. There was occasional incontinence of urine. No history of lead or syphilis could be ascertained. The case was unusual, in that atrophy affected the trunk muscles more than the limbs. He also showed a boy, aged 16, in whom the disease was either congenital or so early that onset was not marked. He presented general muscular atrophy. There was no change in electrical reactions; the knee-jerks were active.

SHORTENING AND EVERSION OF THE THIGH.

Mr. **GODLEE**, who showed these cases, said his object was not to suggest that there was not such a disease as coxa vara, but only to show that the conditions described as associated therewith might be dependent upon entirely different conditions. He confessed that he did not know what was meant by coxa vara. Case I.—Boy, aged 6; the symptoms began a few months ago; the family history was possibly suggestive of tuberculosis. There never had been any pain or trouble; but there was one inch shortening of the femur with rotation of the foot outwards. Skiagraphs showed the shortening to be in the neck of the bone. Movements at the hip were very free Case II.—Boy, aged 18, with one inch shortening and eversion, but hip almost completely ankylosed. There was a tuberculous family history. The trouble began after a blow, but there never had been any pain. Case III (not shown).—Man, aged 23; conditions as above. The skiagraph showed no mischief in the head of the bone; but the neck was almost at a right angle with the shaft. The shadow cast in the Roentgen ray by the diseased hip was not so dark as that produced by the normal hip.

Mr. **RAYMOND JOHNSON** objected to coxa vara being described as a disease instead of as a deformity.

SCIRRHOUS CARCINOMA OF THE PAROTID GLAND.

Mr. H. B. **ROBINSON** exhibited a man, aged 65, under his care at St. Thomas's Hospital. The tumour was first noticed some six months ago, but the man had not sought advice owing to the absence of pain. The tumour was in the right parotid region, and extended from the zygoma above to below the lower normal limit of the gland, pressing backwards on the external auditory meatus, and extending forwards on the masseter, as a nodular projection with a well-defined anterior margin situated in the socia parotidis. The tumour extended deeply behind the jaw, but did not interfere with the movement of the latter; there was slight bulging into the pharynx on the right side, and the growth possibly reached into the zygomatic fossa, and had involved the upper jaw, for by transillumination there was only a very faint crescent of light on the right side below the eye. The glands in the neck were extensively involved as far as the supraclavicular region. There were no secondary growths.

PSEUDO-HYPERTROPHIC PARALYSIS.

Dr. **VOELCKER** showed a boy, aged 5, who was at first thought to be suffering from pseudo-hypertrophic paralysis, but subsequent observation in hospital had led him to doubt the correctness of the diagnosis. When 11 months old the child had scarlet fever, and at 2 years bronchitis and convulsions. He never walked. On rising from the ground he did so in the pseudo-hypertrophic way. The only enlarged muscle was the triceps. The back was very arched, and there was a great tendency to fall backwards. The knee-jerks were present and the ankle-jerk brisk. He thought it might be a case of cerebral sclerosis.

ELEPHANTIASIS OF ONE LEG.

Sir **DYCE DUCKWORTH** showed a girl, aged 20, a native of Yorkshire, in whom transient attacks of swelling of the left leg, commencing three years ago, had been followed by permanent enlargement. The limb up to the groin was enlarged, hard, brawny, and cold, and did not pit on pressure. She had been under treatment for ten weeks. Massage, electricity, and a liberal dietary had effected marked improvement, but the circumference of the limb was still markedly in excess of that of the other. As to its causation she had never before been out of Yorkshire, the blood was about normal, and no filaria had ever been discovered. There was no evidence of visceral disease, and no signs of venous stasis, lymphatic involvement, or enlarged glands.

Dr. **TOOGOOD** mentioned two cases which he had seen, also in anæmic girls; both completely recovered under treatment by ferruginous remedies and good hygienic measures.

MULTIPLE EPITHELIOMA OF SCALP FOLLOWING UPON LUPUS ERYTHEMATOSUS.

Dr. **PRINGLE** showed a woman, aged 45, suffering from this condition, which first appeared in 1887. She had been under treatment since 1890. The growth over the right occipito-parietal suture had been removed by Mr. Pearce Gould, and the site afterwards treated with skin grafts. The cicatrix was now quite healthy, but the disease had lately recurred in the adjoining occipital region. Dr. Pringle mentioned that this was the second recorded case in which epithelioma had succeeded lupus erythematosus.

HARVEIAN SOCIETY OF LONDON.

ROBERT BOXALL, M.D., in the Chair.

Thursday, January 5th, 1899.

ADHESIONS AND THEIR CONSEQUENCES.

Mr. **HOWARD MARSH** read a paper on the subsequent history of cases in which adhesions had formed in the joints, the peritoneum, the pleura, and other parts. He remarked that adhesions were identical with the new connective tissue formed to repair wounds; and were apt to result under various circumstances when the tissues were maintained in a condition of irritation. Their extent and firmness depended on the activity and duration of the inflammatory process in which the parts concerned were involved. One of the chief laws regulating the production of new tissue in the healing of wounds was that of conformity to type. In other words, new material served the purpose of, as far as possible, restoring structures to their typical or original state. To this end, in an aseptic wound, only just as much as was required was produced. But when the tissues were maintained in a condition of inflammation new material was organised in superfluous amount, and, in such parts as the joints and the peritoneum, accumulated in the form of adhesions. Such adhesions, however, played no part in the restoration of the structures to their typical condition. On the contrary, they were abnormal; and while they remained, true or complete repair—that is, restitution to type—could not take place. Before repair could be perfect they must be got rid of, just as the superfluous callus (termed temporary) formed in the repair of a fracture was removed. Now this result was provided for. Undoubtedly adhesions, if not too extensive and firm, tended to be absorbed. This result, though often met with in the joints, was most obvious in the peritoneum. Many cases had been met with in which, after pelvic cellulitis or tuberculous peritonitis, extensive adhesions completely disappeared. A typical case was related. A middle-aged woman, after peri-uterine inflammation, suffered so much pain and flatulent distension, accompanied by attacks of constipation and vomiting, that an exploratory laparotomy was performed, when it was found that the intestinal coils were so extensively and firmly matted together that nothing could be done. The patient, however, gradually improved. Two years later laparotomy was undertaken for the removal of an ovarian cyst. It was then observed that almost every trace of adhesions had disappeared. The existence of this strong natural tendency to the absorption of adhesions—like the absorption of temporary callus—was a very important fact in respect both to prognosis and the management of clinical cases. It was, indeed, the key to the treatment of many joints whose movements were restricted by adhesions, either in their interior, or in the surrounding parts. In this connection cases must be systematically divided into three groups in the order of their severity. In the first group, where adhesions were the result of inflammation, neither severe or prolonged, such adhesions as were developed soon spontaneously disappeared, and the joint regained its free range of movement. In the second, in which inflammation had been more severe and prolonged, the adhesions were so extensive and firm that, unless surgical interference was adopted, they remained and rendered the joint permanently stiff. Here it was necessary to manipulate the joint under an anæsthetic, so that the adhesions were ruptured, and to follow this proceeding up by the use of passive movements and massage. Under this method of treatment absorption would occur. The third group included cases in which, as the result of acute inflammation extending over some weeks, the structures of the joint had been destroyed, and replaced by very extensive and firm adhesions, so that the joint was virtually converted into a scar. In such cases manipulation could do no good. The scar might of course be torn through, but the only result would be that, as soon as the scar reformed, the loss of movement would be more complete than ever. In practice, before treatment could be determined upon, it was obviously necessary to ascertain to which group the particular case in hand belonged. This could generally be done by taking into account the cause of the inflammation in which the joint had been involved, the degree and duration of the inflammatory process, and the present symptoms. In cases of traumatic inflammation not severe and not of long duration, and now unattended with heat and pain, movement would probably be restored as soon as the joint was gently exercised. In Group II the same favourable result would follow manipulation, massage, hot douching, etc. It was this group in which formerly so many oversights had occurred, and so many cases put right by the rough-and-ready wrenchings of the bonesetter. Nor were such oversights even yet entirely ancient history. In the third group, typical of which were joints which had been involved in septic inflammation following parturition, and some of the forms of gonorrhœal arthritis, the joint was a mere scar, and manipulation was perfectly useless and not a little dangerous. In the great majority of tuberculous cases, at whatever stage, manipulation was not advisable or even safe. In conclusion, the author gave a warning as to massage. In every case in which this method was ordered the surgeon should give precise directions, and closely supervise the manner in which they were carried out. He had met with not a few instances in which cases handed over for massage had, either as a mere matter of commerce, or ignorantly although quite conscientiously, been greatly over-treated, and some severely injured. In the keen competition of the present day not only had massage been sometimes carried too far, and even degraded to vile purposes, but it and other methods, good in themselves when duly supervised, had been "boomed" as matters of commerce, and worked by limited liability companies. Doubtless the public had a full right to please themselves. It was, however, necessary under the circumstances that surgeons should study cases under their care as fully as possible, and critically discriminate between various groups, and that they should take care into whose hands, whether for massage or any other form of treatment, they, as far as they were responsible, allowed their cases to pass. Many a wolf with a sheep's skin on its back was the embodiment, in the credulous eyes of the public, of an angel of light.

The CHAIRMAN remarked that the effusion of thick plastic lymph into the peritoneum, like the provisional callus around a bone, was a wise provision of Nature, which often served to shut off the general peritoneal cavity and protect it from injury. Having served its purpose, this effusion in the majority of cases becomes subsequently almost completely absorbed. The reason why in some cases, but not in all, the process of repair should, so to speak, run riot, and one or more firm bands of adhesion remain, is by no means clear.

Mr. ALBAN DORAN observed that it was not known how far the endothelium of serous and synovial membranes was destroyed by inflammation, nor how far it was capable of repair. Destruction of endothelium greatly facilitated the formation of firm adhesions. Delbert had shown in Vol. XXXV of the *Annales de Gynécologie* that rough handling and antiseptic solutions damaged or destroyed the endothelium of the peritoneum. In septic inflammation of a serous membrane the tissues which renovated the endothelium were probably destroyed. On the other hand, long-standing tuberculous peritonitis seemed far less destructive, as Mr. Marsh had noted in tuberculous disease of joints. Mr. Doran had operated frequently for tuberculous peritonitis; one patient died a few years later from phthisis, and the small intestines, which had been matted together at the operation, were found almost free after death, except in the pelvis.

Dr. HORACE MANDERS also made remarks.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

E. GWYNN, M.D., President, in the Chair.

Friday, January 13th, 1899.

THE PREVENTION OF TUBERCULOSIS.

A DISCUSSION on the prevention of tuberculosis, with special reference to its notification, was opened by Dr. NEWSHOLME, who remarked that Koch's discovery of the bacillus of tubercle had completely changed our conceptions of the pathology and etiology of this disease by showing its infective nature. This, however, did not necessarily involve its communicability from man to man, for tetanus was also infective, and dependent on a specific bacillus, but not communicable, though it was not long before the communicability of tuberculosis was proved by Cornet. Some diseases, as diphtheria and smallpox, were communicable to all persons alike; while others, among which, according to Kanthack, was tuberculosis, were so to a minority only. This, however, was but a question of degree, for there were families that seemed to enjoy an immunity to scarlet fever; and the evidence of the *post-mortem* room was that a large proportion of persons had at one time or another recovered from attacks of tuberculosis, while one-fourth of the deaths from all causes between the ages of 15 and 55 were from this disease alone. The long incubation introduced further difficulties. The most frequent vehicle of infection was undoubtedly the dried and pulverised sputa, but if the bacillus had not an extracorporeal existence they might hope to eradicate the disease by isolating the sick and improving the sanitary conditions of the dwelling. But the fact that the patient had expectorated millions of bacilli daily long before the nature of his illness was recognised had been urged against notification. To this he would reply that whatever risks had been incurred by the patient's family already, the longer the exposure was continued the greater was the probability of their becoming infected. The saprophytic existence of the bacillus on wall papers and in other places was certainly possible but it was limited; and though that of the bacilli of diphtheria, enteric fever, and, as he believed, of scarlatina was far more protracted, notification had been practised in those diseases with advantage. Saprophytism would, however, explain only a minority of cases of excessive incidence on certain houses, insanitary conditions being a still more powerful factor, and inspection of infected houses would enable one to remove either cause. The predisposing causes of tuberculous infection were (1) the habitual inhalation of rebreathed air, (2) damp and want of light in the dwelling; (3) dusty occupations; and (4) intemperate habits. Sanitary authorities could remedy all but the last of these, and in this work they would be greatly assisted by notification. Staircase windows were being extensively introduced in Brighton with great advantage; but if every case of phthisis were notified, they might strip off old wall papers and disinfect and cleanse the rooms. It might be urged that house-to-house visitation would render notification superfluous; but it was impossible to inspect every house even once in a year, whereas, with notification, infected houses could be promptly visited and cleansed at shorter intervals, and damp and overcrowding remedied, even though the visits to others had to be made less often. Several local authorities had applied for powers to add tuberculosis to the list of notifiable diseases, but the Local Government Board had always refused their requests. The chief objection to notification seemed to be the fear, as expressed by Sir Richard Thorne, that it would interfere with a man's earning his livelihood, but no one need suffer, since notification was confidential, and in this case would apply rather to the house. Under the Factory Acts rare and non-communicable diseases, as lead and arsenic poisoning, were notified, but phthisis was communicable for several years, and caused 50 per cent. more deaths than all the notifiable infectious diseases together, while it was more amenable to preventive measures than most of them. In Brighton a circular was widely distributed explaining these precautions, recommending the use of damp cloths instead of sweeping, free ventilation by open windows in bedrooms, and the proper disposal of the sputa; and pointing out how the patient intensified his disease by swallowing his own expectoration, so that he was even a greater gainer than other members of his family. It was unfortunate that the Local Government Board could not apprehend degrees of notification or sanction payment for voluntary information. In other infectious diseases, neglect to notify every case might make it impossible to trace the source of an outbreak; but the case of phthisis was different, and in Brighton he had much voluntary notification, for which he was nevertheless unable to pay any fee. There should be local option in this matter, and it was a shame that the Local Government Board should hinder the intelligent action of local authorities in the promotion of the public health. In Brighton every death from any form of tuberculosis was made the subject of inquiry; over 100 houses per annum were thoroughly disinfected after deaths from phthisis, and many more after the removal of a patient to hospital, through voluntary notification, special directions being issued for the purpose. Public opinion was fast ripening in favour of the control of milk supplies, and of the provision of municipal slaughterhouses; and minor details, as multiple notification, could easily be arranged. Local authorities should demand permission to pay for voluntary or to adopt compulsory notification, and the consolidation and amendment of building regulations, the saving clauses in which frequently rendered them inoperative.

Dr. **Niven** believed that in the north public feeling had been so roused that legislation would be welcomed. Sheffield and Blackburn were pressing for notification, and much was being done by lectures, by pamphlets distributed at hospitals, by lady visitors, and instruction of dairymen and farmers; while more hospital accommodation was being provided. Yet the death-rate was rising, for these means did not reach the very poor and the "dosshouse" population; notification and the consequent cleansing of their dwellings would be the best means of educating the lower strata. Hospitals and sanatoria were too often confused, whereas their aims were wholly diverse, the former being intended for the reception of the advanced, incurable, and most infective cases, the latter for the cure of those in the early stages. Recovery, at least from one attack, was probably more frequent than death, for Dr. Harris found evidence of old lesions in 38 per cent. of *post-mortem* examinations taken indiscriminately. Many who recovered in sanatoria might have done so in comfortable homes, but too often in in-patients discharged virtually cured, the disease recrudesced in a few months after their return to their former surroundings, and the mass of phthisis was too vast for adequate treatment. Dr. Hermann Biggs's maps and his own showed clean areas alternating with blocks of infected houses, as if these infected one another. No injustice or hardship had followed voluntary notification wherever it had been tried, but there was a grave danger to the community in clothes made by phthisical tailors in confined rooms. Such cases could be discovered and remedied by notification, but the inspectors should be medical men and not the ordinary officials, and should confine themselves to giving instructions, with the consent of the medical attendant, if any.

Dr. **Bezly Thorne** was in favour of voluntary notification as an educational agency, but believed that attempts at compulsion would rouse the middle classes to an opposition stronger than that presented to compulsory vaccination. The establishment of State-supported bacteriological laboratories was absolutely necessary for the diagnostic examination of sputa. He trusted that the great benefit societies and trades unions would co-operate in raising funds for the early treatment of phthisis in sanatoria, as not less than six months' residence was found necessary for a cure in the German institutions, which, as well as the State system of sick insurance, were worthy of imitation.

Dr. **Sykes** was doubtful of notification, which would by no means cover the whole of the phthisis in the country, especially among the very poor who, living in a state of chronic ill health, did not recognise the commencement of phthisis, and many others refused to believe that they were consumptive. The only effectual means of checking the dissemination of infection by such persons was to put down the filthy habit of expectoration by all, whether sick or healthy.

Dr. **Heron** did not admit the practicability of notification in the present state of public opinion, being convinced that the phthisical who were able to work perhaps for years, would be branded as dangerous. There were probably half a million such persons who, if deprived of employment thereby, would be entitled to claim support from the State. The first effect of notification would be concealment, as had been the case with leprosy in India. The education of the public by concerted action on the part of the medical profession, supported in every way by the authorities, and the instruction of the older children in schools of all grades in the nature and prevention of all infectious diseases would do far more good. Notification would certainly be resented, and be made a party cry in politics.

Mr. **Shirley Murphy** agreed, on the whole, with Dr. Heron that at present notification could not be enforced, and that we must rely on the education of the public and, indeed, of the medical profession. Notification would, however, enable the medical officer of health to study the distribution of phthisis, and the authority to remedy sanitary defects. But it must be voluntary. It was much to be regretted that the Local Government Board could not understand degrees and kinds of notification or sanction payments for voluntary and partial information the value of which might be great. Public laboratories, where the busy practitioner could have the sputa examined for a trifling fee were urgently called for.

Sir **Hugh Beevor** attached great importance to local sanitary conditions. In three towns, Cambridge, Dudley, and West Ham, with very different death-rates from phthisis and age incidence, he found the curves for each town identical in the two decennia, 1861-70 and 1881-90.

Drs. T. **Groves** and W. A. **Bond**, Mr. **Stott**, and others having spoken, Dr. **Newsholme**, in replying, denied the probability of opposition to notification such as he recommended, since compulsory notification and payment for voluntary information would be dependent on the expressed wish of the large majority of the ratepayers and their representatives, local option being an essential condition of his proposal; and it was most unfortunate that the Local Government Board, whose powers of compelling negligent authorities to do their duty he would gladly see increased, should obstruct the more intelligent in their efforts for the promotion of the public health. As to the "branding" of the patient, that had already been done by the present propaganda, and he knew of a clerk whose dismissal had been demanded by his fellows, but the guarantee of effectual precautions afforded by official action would rather tend to allay such alarm. The plea of concealment had been urged against the notification of diphtheria and other fevers; and there would be no interference with the liberty of the subject, the action of the authorities being limited to the sanitary conditions of the house, and no ethical difficulties had been felt in Brighton. But the question of correct diagnosis was important, and facilities for bacteriological examinations were already provided in Brighton and in several northern towns, in Brighton, at any rate, without charge.

BRITISH GYNÆCOLOGICAL SOCIETY.—The annual meeting of the Society was held on January 12th; the **PRESIDENT** (Dr. Macnaughton-Jones) in the chair. The election of officers and Council for 1899 was as follows:—*Hon. President:* R. Barnes, M.D., F.R.C.P. (London). *President:* H. Macnaughton-Jones, M.D., F.R.C.S.I. (London). *Vice-Presidents:* G. G. Bantock, M.D. (London), A. E. Cordes, M.D. (Geneva), G. Elder, M.D. (Nottingham), R. H. Hodgson, M.D. (London), F. Bowreman Jessett, F.R.C.S. (London), *J. Macpherson Lawrie, M.D. (Weymouth), J. J. Macan, M.D. (London), *R. Milne Murray, M.D. (Edinburgh), *R. D. Purefoy, M.D. (Dublin), F. F. Schacht, M.D., B.A. (London), W. Travers, M.D., F.R.C.S. (London), Professor Hector Treub, M.D. (Amsterdam). *Treasurer:* J. A. Mansell Moullin, M.D. (London). *Council:* W. Armstrong, M.R.C.S. (Buxton), *N. Whitelaw Bourns, M.D. (London), *Professor Murdoch Cameron, M.D. (Glasgow), *John Campbell, M.D., F.R.C.S. (Belfast), *G. Roe Carter, M.R.C.P.I. (London), A. Donald, M.D. (Manchester), *T. Eastes, M.D., F.R.C.S. (Folkestone), F. Edge, M.D., F.R.C.S. (Wolverhampton), C. H. Gage-Brown, M.D. (London), *H. Bellamy Gardner, M.R.C.S. (London), C. Godson, M.D. (London), H. S. Howell, M.D. (London), *J. Furneaux Jordan, F.R.C.S. (Birmingham), Skene Keith, M.B., F.R.C.S.Ed. (London), Christopher Martin, M.B., F.R.C.S. (Birmingham), *T. Morton, M.D. (London), W. H. Newnham, M.B.Cantab. (Clifton), Professor A. W. Mayo Robson, F.R.C.S. (Leeds), *C. H. F. Routh, M.D. (London), *W. Slimon, M.D. (London), E. T. Smith, L.S.A. (London), Heywood Smith, M.D. (London), R. T. Smith, M.D. (London), D. Thomson, M.D. (London). *Editors of Journal:* F. F. Schacht, M.D., B.A. (London), *Arthur E. Giles, M.D., B.Sc. (London), *J. J. Macan, M.D., M.A. (London). *Hon. Secretaries:* George E. Keith, M.B. (London), Arthur E. Giles, M.D., B.Sc. (London). (The asterisk indicates the new names proposed by the Council for the respective offices).—Dr. **MACNAUGHTON-JONES** delivered the presidential address, in which he said that in no field of surgery had advances been more rapid and striking than in that of gynæcology, the present system of treatment being founded upon a solid basis of well-ascertained anatomical, physiological, and pathological facts. In gynæcology, for example, it was a fact established by many thousands of experiments that removal of every form of uterine tumour could be safely conducted by hysterectomy; that, with or without the uterus, the most extensively diseased adnexa could be removed by cœliotomy; that ovarian tumours, with every conceivable complication, could be dealt with successfully by ovariotomy; that myomata of a certain kind could be most successfully ablated by the vaginal route; that certain adnexal conditions could be best dealt with in the same manner, and that conservative operations on these organs could be successfully carried out by colpotomy, anterior or posterior; that cancer of the uterus, save in very rare conditions—such as malignant disease complicated by a large myoma—was best attacked by vaginal hysterectomy; that drainage was not necessary, save under conditions which were fairly defined and settled; and that, once having decided upon drainage, the mode of carrying it into effect, whether after laparotomy or vaginal hysterectomy, had been absolutely determined and was a matter of every day routine. To exhibit specimens merely to prove any of these points was an unjustifiable expenditure of valuable time. Also, it might with truth be said, that every argument that could conceivably be advanced in regard to certain details before, during, and after operative procedures had been debated and written of to the death. There were other points, however, which were perfectly justifiable matters for discussion, such as (1) clinical facts, signs, and symptoms, leading to difficulty and errors of diagnosis; (2) unique, serious, and unexpected complications; and (3) pathological conditions which were rare, or bore upon treatment or operative procedures. In uterine fibroids and diseased adnexa there were still many debatable questions. Cases of clinical interest, unaccompanied by pathological specimens, seemed to be too rarely discussed by the Society; in the *Transactions* one sought in vain for evidence that any form of general treatment and medication was of use in resisting the inroads of pelvic disease in women. Organs that had been threatened with, or passed through, some critical and serious morbid change, but were now restored physiologically and histologically to a condition of health by treatment other than operative were worthy of mention and record in the *Transactions*. The President reviewed many other cognate subjects, including the cystoscope of Dr. Kolischer of Vienna; and, in referring to the question of abortion, suggested that a Committee of the Society, aided by medico-legal experts and an experienced medical coroner, should inquire into and report upon the whole subject. He next reviewed the work of the Society during the past year, and said that there had been advance in every direction. He described several points which had recently appeared to him noteworthy in a month's visit to the clinic of Professor Schauta in Vienna, and referred to several interesting cases lately treated by himself in his own practice. Finally, the details of Professor Schauta's operations and his brilliant results were reviewed at considerable length.—A *conversazione* followed, at which some 150 Fellows and visitors were present. Recitations were given by Mr. **MEL. B. SPURR**, and selections of vocal music by the Misses and Mr. **ISIDOR DE SOLLA**.—Some new and interesting Gynæcological Instruments were shown by the **PRESIDENT**, including Dr. Kolischer's operating cystoscope, Dr. Doyen's *lévier-pince* for producing hæmostasis by pressure and crushing in abdominal hysterectomy, Professor Schauta's ligature tightener, and various other gynæcological appliances.

ASSOCIATION OF REGISTERED MEDICAL WOMEN.—At a meeting on January 18th, Miss **COCK**, M.D., President, in the chair, Miss **MACDONALD**, M.B., showed Sketches of Acute Dermatitis of the Hands and Feet in a patient who was taking arsenic for pernicious anæmia.—Miss **STONEY**, M.B., read a paper on Tuberculous Peritonitis in Children, based on notes of cases under her care in the Victoria Hospital for Children, in Hull. She pointed out the difficulties in diagnosis between this and rickets with a distended abdomen, especially in very young children, and dwelt on the importance of the following symptoms of tuberculous peritonitis: (1) Moaning: a short monotonous moaning cry occurring during expiration; (2) enlarged veins on the abdomen, pointing to some obstruction to the deep abdominal veins, such obstruction being almost invariably found to be due to tuberculous peritonitis; (3) ascites. The presence of even a small amount of fluid in the abdomen was strongly in favour of tuberculous peritonitis, as it was rare in rickets. (4) A doughy feeling of the abdomen was not pathognomonic, but taken in conjunction with other symptoms was a helpful sign.—Mrs. **GARRETT ANDERSON**, M.D., read a paper on the "Leicester System" of Isolating Small-pox Patients proposed as a substitute for vaccination. The Leicester system had been fairly successful at Sydney, N.S.W., at Leicester itself, and in London in 1892-3. The attempt to keep out small-pox was far more likely to be successful in a place like Sydney than at most other places, as no steamers arrived from Europe except after first calling at Adelaide and Melbourne, where if small-pox had declared itself during the voyage the fact would at once be known at Sydney, and quarantine would be imposed. Even the shorter journey from New Zealand lasted several days, and there would be a good chance of a person who had contracted small-pox before starting falling ill on board ship in time to prevent his being landed. Even at Sydney, however, those responsible for the public health wished for the assistance of a compulsory Vaccination Act, in spite of the fact that hitherto they had succeeded in keeping small-pox from becoming epidemic. Leicester in 1892-3 suffered from an extremely mild type of the disease. In 357 cases there were only 21 deaths. There was some amount of vaccination done, and the isolation attempted was by no means complete; in 28 cases the patients were not isolated till after the seventh day of illness; 52 more were isolated on the sixth or seventh, and the quarantined people could not be induced to remain secluded, and in many cases they went about their ordinary work. It did not therefore seem that Leicester did much more in the direction of seclusion than was done everywhere in the presence of small-pox. Gloucester in 1896-7 had a very severe type of disease, and here the attempt to isolate the sick, much more to quarantine suspects, broke down completely. As many as 1,267 out of the total 1,979 were never taken away from their own homes, and the epidemic was at last stopped only by vaccination and revaccination on a very large scale. With the constant stream of traffic between London and Paris, small-pox could never be kept out of England permanently, even if it could be by great effort completely done away with for a time. Another point against the Leicester system was that individual protection could not by this method be secured by oneself. Everyone depended on his neighbours, upon cases not being missed, upon there being no errors of diagnosis, no breaking of rules; while by the method of getting protection through vaccination people could depend upon themselves, and could get protection if they took the necessary steps to that end.

MANCHESTER MEDICAL SOCIETY.—The annual meeting was held at Owens College on Wednesday, January 11th, Mr. G. A. WRIGHT, the retiring President, in the chair. The Committee in their annual report stated that the Society during the past year had maintained its numbers and its activity. The roll now mustered 376. During the year 32 members had been admitted and 20 resignations had been accepted. Fifteen of the resignations were owing to removal from the district, and the remainder were on account of inability to attend the meetings. The Society had to regret the loss by death of 5 members, namely, Mr. W. B. Aitken, Mr. J. C. Clarke, Dr. Martin Heckscher, Mr. Edward Lund, and Dr. William Smith. Mr. Lund was elected a member of the Society in 1848, and had served on the committees and in various honorary offices, having been three times President of the Society. Twelve meetings in addition to the annual meeting had been held during the year, with an average attendance of 41. Two clinical meetings and two clinical demonstrations—the latter a new institution and a great success—had been held. The ordinary meetings had been held at the Society's rooms, and the clinical ones, by permission, at the Royal Eye Hospital, St. John Street. In accordance with the authority received from the Society at a special meeting held in April, 1898, the Committee had entered into negotiations with the Pathological Society and, through that Society, with the authorities of the Owens College, whereby arrangements had been made which would enable members to obtain investigations of morbid specimens connected with tuberculosis, etc. Great good was expected to result to the members from this arrangement. On the motion of Dr. DIXON MANN, seconded by Dr. SINCLAIR, the Committee's report, together with the library report, read by Dr. Williamson, the Treasurer's report, read by Dr. Glascott, and the Trustee's account, read by Dr. Lloyd Roberts, were adopted. —It was proposed by Dr. PRINCE STALLARD, and seconded by Dr. HOPKINSON, that the thanks of the Society should be given to the retiring officers. Special reference was made by Dr. Prince Stallard and Dr. Hopkinson and by Dr. Dixon Mann and the Chairman to the valuable service of Mr. William Coates, who was now retiring from the Secretaryship, which he had held, to the great advantage of the Society, since 1894. Mr. COATES made a suitable reply, and Dr. Milligan was afterwards thanked for editing the Society's proceedings. The following officers were elected for the coming year: *President:* Dr. Sinclair. *Vice-Presidents:* Mr. Coates, Dr. Godson, Mr. Thorburn, and Dr. Wild. *Treasurer:* Dr. Glascott. *Secretary:* Dr. Reynolds. *Committee:* Dr. A. Brown, Dr. E. V. Brown, Dr. J. G. Clegg, Dr. Donald, Dr. Goodfellow, Dr. Harris, Dr. Hopkinson, Dr. Milligan, Mr. J. E. Platt, Dr. A. T. Wilkinson, Dr. Williamson, and Mr. A. Wilson. *Library Committee;* Dr. Kelynack, Mr. Pomfret, and Mr. J. W. Smith. *Auditors:* Dr. Fenn and Dr. Lea.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—At a meeting on January 6th, Dr. S. D. CLIPPINGDALE, President, in the chair, Mr. LAKE read a paper on the Treatment of Laryngeal Phthisis, based on a series of 160 cases. Clinically the cases could be resolved into groups, each of which derived benefit from slight modifications of treatment. He particularly dwelt upon the advantages of intratracheal injections in cases of superficial ulceration and slight swelling, but admitted of its uselessness alone in cases of greater severity. The paper was discussed by the PRESIDENT, and Messrs. MCADAM ECCLES, JAMES, and ATKINSON.—Mr. J. R. LUNN read a paper on Two Cases of Double Optic Neuritis associated with Mastoid Disease. Case I, a boy aged 11 years, complained of giddiness and severe pain in the right ear, from which there was a little offensive discharge. He appeared to be quite deaf. Behind the right ear was a fluctuating swelling. Two days after being first seen, the patient became delirious, and then maniacal, and the swelling behind the ear became larger. Under an anæsthetic a perforation of the membrana tympani was discovered. The mastoid cells were trephined, and found to be full of offensive cheesy material. The operation was necessarily extensive, and at the end of the excavation the pulsating lateral sinus could be seen. The patient made a good recovery, and the optic neuritis soon cleared up. Case II, a girl, aged 14, had suffered from ear trouble since an attack of measles and scarlet fever at the age of 7. Behind the right ear was a fluctuating swelling, and from the meatus flowed an offensive discharge. Deafness was marked. The right membrana tympani was perforated, and both optic discs showed signs of optic neuritis. The right mastoid process was trephined, and much sclerosed bone had to be removed before the offensive cheesy matter could be reached. The patient made a good recovery, and the optic neuritis soon disappeared. The paper was discussed by the PRESIDENT, Mr. LAKE, and Dr. BATTEN.—Dr. JAMES ALLAN showed a specimen of Hypertrophied Prepuce. Dr. Allan also read a paper on Twelve Cases of Tracheotomy for Laryngeal Diphtheria in Young Children, with Nine Recoveries. The details of the operation were discussed, and stress was laid on those points which the author considered important. It was shown by reference to a case that tracheotomy sometimes gave the most brilliant results in apparently hopeless cases. The indications for the operation were discussed, and the dictum "when in doubt operate at once" was quoted with approval. The paper was discussed by the PRESIDENT, Dr. GIBBES, and Messrs. GUNN, LLOYD, ATKINSON, and MCADAM ECCLES.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.—At a meeting on December 20th, 1898, Dr. BERRY (President), in the chair, Dr. EURICH gave a demonstration of microscopic sections from a series of Ovarian Tumours. He mentioned that the malignant or non-malignant character of a tumour could not be determined until operation; also that in the same tumour there could be demonstrated a change of type from innocent to malignant; and, further, that in the ovary itself, although it might not apparently be involved in the tumour, yet malignant disease might be demonstrated microscopically. Mr. HALL read a paper on the Operative Treatment of Breast Cancer. He contended that the bad results of operation in the past were the result of imperfect removal, and pointed out how greatly the percentage of cure had increased since the introduction of the more extensive methods of operating. The aseptic treatment of wounds rendered it possible to undertake these operations without grave risk to life. He gave a summary of the results of different surgeons from 1870 to 1898, and contrasted the 5 per cent. of cures obtained by Billroth in the earlier decade with the 50 to 60 per cent. obtained by Halsted, Watson Cheyne, and others in the last few years. Allusion was made to the researches of Heidenhain, Stiles, and others on the course of the lymphatics of the breast, and the conclusion was stated that no operation could be deemed satisfactory unless not only the breast and axillary glands were removed, but also the lymphatic channels which ran in the pectoral fascia. Halsted's operation was selected as fulfilling these requirements. A description of Halsted's operation was then given, and diagrams shown illustrating the steps of the procedure. It was stated that very little loss of function followed the operation, and that it was generally possible, owing to the large amount of tissue removed, to cover in the wound without undue tension on the skin. Operation as a palliative measure was advocated in all cases where there was a reasonable prospect of removing the whole growth, and in which the operation would not be exceedingly dangerous to life, or have a hopeless functional result. Remarks were made by Mr. HORROCKS, Mr. ALTHORPE, the PRESIDENT, and Drs. HIME, WOOD, BELL, and ARNOLD EVANS, and Mr. HALL replied.—Dr. J. H. BELL read notes of a case in which Hæmatoporphyrin had appeared in the Urine. The case was one of a nervous affection, accompanied by insomnia, and sulphonal had been given to induce sleep. The sulphonal had been given in 10-grain doses, but the patient had continued the administration when no longer under medical advice.

MEDICO-CHIRURGICAL SOCIETY OF SHEFFIELD.—At a meeting on December 22nd, 1898, Dr. ALFRED ROBINSON (Rotherham), President, in the chair, a committee was appointed to report on the question of a local Branch of the National Association for the Prevention of Tuberculosis.—Mr. SNELL introduced a young man from whose Right Retina a piece of metal had been extracted by the electro-magnet. The fragment had been observed with the ophthalmoscope, and the result of the removal was excellent. Mr. Snell also showed a case of Hemianopsia and two cases of Symblepharon after treatment. —Mr. ARCHIBALD CUFF demonstrated Peculiarities of Gait and other Abnormalities in a rickety dwarf.—Dr. ARTHUR HALL showed cases and photographs of (1) Seborrhœic Eczema, (2) Addison's Disease, (3) Hydroa of Pregnancy.—Dr. SINCLAIR WHITE exhibited and commented on: (1) A case of Movable Hydronephrotic Kidney cured by nephropexy; (2) Gall Stones, cholecystotomy with choledochotomy; (3) Loose Cartilage removed from the Knee-joint; (4) Traumatic Aneurysm of Brachial Artery treated by the method of Antyllus; (5) Spinal Meningocele treated by excision of the sac; (6) Cancerous Uterus removed by kolpo-hysterectomy.—Mr. RUPERT WATERHOUSE showed a Brain with Cyst and recent Blood Clot. Mr. Waterhouse also related a case of Skin Rash following the administration of a simple enema.—Dr. ADAMS showed a specimen of Malignant Growth of Œsophagus, with secondary growths in the liver, and gave clinical and other particulars of the case.—Dr. BARDSWELL read a paper on Suprarenal Extract as a Local Anæsthetic. The PRESIDENT, Dr. KEELING, Dr. SINCLAIR WHITE, Dr. GODFREY CARTER, Mr. MAKEIG JONES, and Mr. SNELL made remarks.

IPSWICH CLINICAL SOCIETY.—At a meeting held on January 12th, Mr. S. O. Eades was elected President for the year, and Mr. W. W. Sinclair was re-elected Honorary Secretary.—Mr. HOSSACK showed a case in which he had Successfully Removed the Right Half of the Tongue together with the Submaxillary Gland for Epithelioma, by a modified Whitehead Operation.—Mr. BRANFORD EDWARDS showed a case of Tuberculous Disease of the Kidney. Dr. BROWN and Dr. VINCENT made remarks. —Dr. VINCENT and Mr. J. R. STADDON showed some curious Old Surgical Instruments.—Mr. C. K. MOSELEY brought up the question of the Want of Provision made in the Town for the Reception and Treatment of Cases of Diphtheria requiring Tracheotomy; and it was decided to discuss the subject at the February meeting.

SOUTH-WEST LONDON MEDICAL SOCIETY.—At a meeting on January 11th, Dr. J. J. MACWHIRTER DUNBAR, President, in the chair, Dr. J. B. BALL read a paper on Paroxysmal Sneezing and Allied Affections, based on 112 cases which had come under his care. Stress was laid on the frequency with which pathological conditions of the nose were present in all forms of paroxysmal sneezing. In his own cases some morbid condition was present in 100 out of the 112 cases, or 93 per cent. The commonest condition was some deformity of the septum. Trivial deformities were not included, but only such as obstructed respiration, or brought some part of the septum into close apposition with the turbinals. Other conditions present were hypertrophic rhinitis, mucous polypi, and adenoid growths. The best results were obtained from a thorough local treatment of such intranasal abnormalities as were present in each case. The galvanic cautery had only a limited application in those cases. The removal of mucous polypi did not cure cases unless coexisting septal deformities and hypertrophic conditions were efficiently treated. Of 31 cases which had undergone a thorough local treatment, 25 were either cured or so much relieved that the symptoms gave no further trouble. Asthmatic symptoms were not relieved to the same extent as the nasal symptoms. The internal drugs found most useful were quinine, belladonna, arsenic, and iodide of potassium. The local applications most often used were cocaine, menthol, and menthol-camphor. A discussion followed, in which the PRESIDENT, Dr. BIGGS, Mr. RYAN, Mr. T. A. J. HOWELL, Dr. DICKINSON, and Mr. DEAS took part, and a hearty vote of thanks was given to Dr. Ball.

LIVERPOOL MEDICAL INSTITUTION.—At the annual meeting held on January 12th, the following list of office-bearers, members of Council, and Committees was adopted: *President:* W. Macfie Campbell. *Vice-Presidents:* R. S. Archer, H. Harvey, *A. Bernard, *T. B. Grimsdale. *Hon. Treasurer:* James Armstrong. *Hon. General Secretary:* J. M. Hunt. *Hon. Secretary to Ordinary Meetings:* W. Thelwall Thomas. *Hon. Librarian:* *W. Permewan. *Council:* F. H. Barendt, E. A. Browne, R. Caton, F. Johnston, Leslie Roberts, Arthur Wallace, *William Alexander, *R. A. Bickersteth, *T. M. Dawson, *J. C. Davey, *A. Burns Gemmel, and *J. J. O'Hagan. *Auditors:* *H. Harvey and *C. J. Macalister. *Pathological and Microscopical Committee:* J. H. Abram, F. H. Barendt, R. A. Bickersteth, R. Boyce, A. W. Campbell, F. C. Larkin, C. J. Macalister, G. P. Newbolt, F. T. Paul, and C. S. Sherrington. *Journal Committee: Hon. Sec. Ordinary Meetings, Hon. Sec. Pathological Section:* *F. T. Paul, F. H. Barendt, T. B. Grimsdale, C. G. Lee, C. J. Macalister, G. P. Newbolt, and W. Permewan. Those marked * did not hold the same office last year.

REVIEWS.

GOUT: ITS PATHOLOGY AND TREATMENT. By ARTHUR R. LUFF, M.D., B.Sc., F.R.C.P., Physician in Charge of Out-patients, and Lecturer on Forensic Medicine at St. Mary's Hospital. London. Cassell and Co. 1898. (Pp. viii, 245. 5s.)

THE value of this manual depends on two characteristics. It affords in the first place a compact but comprehensive and accurate summary of our present knowledge as to the nature of gout- is, in fact, a monograph in little of the subject. Secondly, it contains the record of the author's own laborious and instructive researches in what may be termed podagric chemistry and pathology, researches which have far more than a mere academic importance in that they form the basis of Dr. Luff's views as to treatment.

The book consists of four parts, of which the first is in the main a reproduction of the author's Goulstonian Lectures, while the second deals with the causation of gout, its various forms, and its diagnosis and prognosis. Part III relates to Dr. Luff's investigations of certain points connected with the treatment of gout. These were undertaken with the objects of ascertaining the various conditions affecting the formation and removal of gouty deposits, the influence of alcoholic drinks on the gouty process, the solvent effect of the mineral constituents of various vegetables on gouty deposits, and the value of certain drugs in effecting the removal of such deposits. The results thus obtained are applied in Part IV to the treatment of gout and gouty conditions.

Dr. Luff accepts and confirms the view that uric acid is the *materies morbi*, and corroborates the conclusion that it is absent from healthy human blood. The details of the new method which he has devised for the estimation of uric acid in the blood are given, and it has evident advantages.

The sources of uric acid are fully discussed and the results arrived at clearly stated. The author believes that in health uric acid is formed in the epithelium of the kidney tubules by the conjugation of urea and glycocine or some similar body. In gout there is always disease of this epithelium, at first functional and later organic, whence an accumulation of uric acid in the system follows. In other diseases associated with the production of uric acid in great excess, such as leukæmia, it is formed from white blood corpuscles, especially their nuclein; but since the kidneys are in general sound, the toxic symptoms which constitute gout do not arise.

The results of Dr. Luff's personal investigations are so numerous and far-reaching as to preclude brief summarisation. It must, however, be noted that he denies that the reaction of the blood has any appreciable influence on the deposition of sodium biurate. He finds that the alkalinity of the blood is not appreciably diminished during a gouty attack, nor has such diminished alkalinity, when produced by the addition of organic acids, any effect upon the solubility of uric acid in the blood, or upon the deposition of sodium biurate. Moreover, the solubility of deposits of sodium biurate is not increased by increased alkalinity of the blood; it is, however, markedly increased by the presence of the mineral constituents of most vegetables, and diminished by that of the mineral constituents of meat. The mineral constituents of certain vegetables delay the conversion of the soluble sodium quadriurate into the insoluble biurate. On the other hand, the administration of the ordinary alkalies, of lithium salts, of piperazine, of lysidine, and of salicylates for the purpose of removing gouty deposits appears to be useless. And a very old doctrine is flouted when Dr. Luff contends that gout is unassociated with any general acidity of the system.

The last section of the book, that on treatment, is, as it should be, the most important. The author approves of colchicum as diminishing the formation of uric acid, and confirms Sir A. Garrod's opinion as to the value of guaiacum in prophylaxis. As to diet, he avoids hard and fast rules. He elaborates the suggestion made in a paper read recently before the Royal Medical and Chirurgical Society that vegetable salts should be substituted for ordinary table salt.

The book is throughout succinctly and clearly written; its utility is enhanced by sixty original tables and an excellent index. It is a compact and trustworthy guide to the subject, and by its production Dr. Luff has shown himself a worthy successor of the great English physicians who have devoted themselves to the study of the disease.

A MANUAL OF THE PRACTICE OF MEDICINE. By FREDERICK TAYLOR, M.D., F.R.C.P. Fifth Edition. London: J. and A. Churchill. 1898. (Demy 8vo, pp. 1018. 16s.)

THE fifth edition of this widely-known and appreciated student's book has undergone considerable change, not only in revision and in the inevitable addition of fresh diseases and morbid entities, such as glandular fever, erythromelalgia, angioneurotic œdema, and hypertrophic pulmonary osteoarthropathy, but also as regards even the shape of the volume and the size of its print. The type is clearer—a distinct improvement, and the individual pages are larger, so that in spite of the increased matter contained in it, the volume has only 28 more pages than the last editlon. The task of keeping a work on general medicine up to date, and of determining how much of what is new is sufficiently true and important to take its place in a textbook of elementary medicine is a difficult one, and requires the mature judgment and discretion that comes of years of hospital teaching and ward work. For this a better-fitted or more successful writer than Dr. TAYLOR would be hard to find. This work is essentially introductory, and adapted for the student at and after his entrance into medicine, and is necessarily somewhat compressed. It is sufficiently complete to carry the reader through the trials and chances of the Conjoint Examining Board for England, but for the higher university examinations its teaching should be supplemented by reading the fuller discussions of theories and disputed points contained in some of the larger textbooks and works on medicine. In saying this as to the scope of this justly successful handbook, nothing is further from the reviewer's mind than to depreciate its value. The present edition fully maintains the reputation established by its predecessors.

GRUNDRISS DER KLINISCHEN BAKTERIOLOGIE: FÜR ÄRZTE UND STUDIRENDE. [Elements of Clinical Bacteriology for Practitioners and Students.] Von Dr. ERNST LEVY und Dr. FELIX KLEMPERER, Professor und Privatdocent an der Universität zu Strassburg. Zweite Auflage. Berlin: August Hirschwald. 1898. (Demy 8vo, pp. 458. M. 10).

SINCE the first edition of this work was published (in 1894) our knowledge of such conditions as immunity, the serum treatment, and the like, has been so increased or modified that the authors have been well advised in practically remodelling their work. They have been wise enough to do this without increasing the size of the volume so greatly as to render it unwieldy. Addition and revision still leave this second addition a handy volume, which may be readily referred to at the bedside or in the wardside room.

The principal additions are those dealing with bubonic plague and meat poisoning, or botulism; but besides these two new chapters very considerable additions have been made to those dealing with immunity, diphtheria, typhoid fever, and actinomycosis. The descriptions of the methods of examining soil, air, and water have also been considerably modified, whilst a list of the principal organisms found in these positions will prove of value to those who wish to carry on investigations in these matters.

The modifications made in other parts are also very numerous. For instance, there is a summary of much of Behring's and Erhlich's recent work on the production of toxins, the measurement of the strength of toxins, and the methods of testing antitoxins, based on Erhlich's recent researches as to the composition of test toxins. Anyone who wishes to follow this question out generally, and even in some detail, will, with the help of this volume, be able to do so without having to refer to the somewhat abstruse original papers. The chapter on typhoid fever is both extended and improved, and affords a fairly full synopsis of the most important points concerning this question. The same remark applies to the chapters on cholera and tetanus.

On a former occasion we spoke in terms of high commendation of this work. We have no hesitation in saying that the present edition is a considerable improvement on that which preceded it.

MEDICINISCHE BIBLIOTHEK: FÜR PRAKTISCHE ÄRZTE. I. Die pathogenen Spaltpilze. II. Die bakteriologische Technik. Von Dr. SCHÜRMAYER, Hanover. Leipzig: G. G. Naumann. (Vol. I, crown 8vo, pp. 360. M. 5. Vol. II, crown 8vo, pp. 282. M. 4.50.)

IN the first of these volumes Dr. SCHÜRMAYER gives a survey of the principal groups of the pathogenic Spaltpilze, dealing rather more fully than is usual with the physiology of these organisms. In a general chapter he considers the structure and composition of bacterial cells, and gives an account of some of the products of metabolism of these organisms. He also gives a short account of the modification of their virulence, morphology, etc., which may occur outside the body. He then goes into the question of infection, of reaction of the tissues in the presence of micro-organisms, the immunity and the immunising of animals against disease, and, finally, traces the relations of micro-organisms to specific infective fevers, and describing, somewhat briefly, the nature of toxins and antitoxins.

The special part of the work is devoted to a classification and description of the micro-organisms met with in disease, and it may be well here to give very briefly the classifications adopted. Under the heading of coccaceae he has staphylococci, streptococci, diplococci, the tetrageni and sarcinæ; his second class, which consists of the bacteriaceae, includes bacteria and bacilli; under the spirillaceae are included the vibrios, spirilla and the spirachaetes. Under the higher fungi or hyphomycetes are included a number of organisms which until recent years were scarcely understood; for instance, in this class he has Coryne bacterium (Keulen bacterium), under which heading comes the bacillus diphtheriæ. The second class (the myco-bacteria) includes the bacillus tuberculosis, the bacillus tuberculosis of birds, the bacillus lepræ, the smegma bacillus, and the syphilus bacillus; whilst under the oospora we have actinomyces bovis. It will be evident at once that Dr. Schürmayer is in no way bound down by conventionalities. The descriptions given in this part of the work are accurate and fairly full; and although the literature quoted is principally German, it should be of considerable value for purposes of reference. The woodcuts are, as might be expected in a work of this kind, somewhat crude; but in most cases they indicate the described appearances fairly well. Some of the coloured illustrations at the end of the work are very well done, but some of them might easily be improved upon.

The second volume is exactly what it pretends to be. As in most works of this kind, we have first a description of the microscope, with a few practical hints on optics and the best methods of illumination; then comes an account of the mounting and staining apparatus required, and the apparatus and substances used in the preparation of nutrient media, of the making of plates, of mounting microscopical specimens of micro-organisms, of making the various forms of cultivation—aerobic and anaerobic, of inoculating animals, of studying the structure of micro-organisms, and of estimating some of their simpler or rather more common products. In this part of the work the author is evidently thoroughly at home, and the chapters, though short, are to the point and full of interest. Then comes the practical examination of various glands and excretions for micro-organisms. The methods of making examination of the air, water, and soil, and especially those for the separation of some of the more characteristic organisms, are given with some little fulness. In a supplement, which will be very useful to the worker, is a list of the more common apparatus and reagents required for the fitting-up of a small laboratory. The remarks which apply to the literature and illustrations of the first volume apply with equal force in this case. In spite of that, however, we can recommend these little works very heartily to the notice of those who wish to obtain in a small compass, and at a moderate price, handbooks containing descriptions of the methods of bacteriological investigation, and of some of the results that have been obtained by these methods during recent years.

DE L'EXPLORATION DES ORGANES INTERNES A L'AIDE DE LA LUMIÈRE ÉCLAIRANTE ET NON-ECLAIRANTE, ENDOSCOPIE PAR LES RAYONS DE ROENTGEN. [The Examination of the Internal Organs by Means of Light, Illuminating and Non-Illuminating. Endoscopy by Means of Roentgen Rays.] Par Dr. LÉON BOUCHACOURT, Ancien Interne des Hôpitaux de Paris. Paris: G. Steinheil. 1898. (Roy. 8vo, pp. 258. 76 figures. Fr. 8)

THIS work embraces all, or nearly all, the methods in general use where light, natural or artificial, is brought to bear upon the methods of examination of the various organs. Allusion is first made to the various uses, both in the examination and the treatment of cases, that are made of the sun's light. The bactericidal action of the sun's rays is a well-ascertained fact, and in many tropical countries use has long been made of such knowledge. In Hayti and in Mexico syphilitic rashes are exposed throughout the day to the sunlight, the course of treatment lasting generally about one month. The sun bath is also employed in Europe for the treatment of various skin eruptions.

In July, 1893, Finsen, of Copenhagen, revived an old practice in the treatment of small-pox cases. By carefully shutting off from the room in which a patient is lying all rays but the red, it was found that the eruption of small-pox was much less extensive, and the suppuration was limited. The methods of ophthalmoscopy, rhinoscopy, cystoscopy, etc., are all detailed. The urethroscope which has, in the hands of Oberländer and Wossidlo, done good work, is not referred to.

The various apparatus used in the production of x-rays are mentioned and illustrated somewhat copiously. The therapeutic effects of the Roentgen rays are dealt with, and reference is made to the very doubtful case, reported by Despeignes of Lyons, in which a mass of malignant disease situated in the abdomen, as large as a fœtal head, disappeared under treatment. The x-rays have been tried also, as a curative measure, in lupus, phthisis, elephantiasis, and excessive and misplaced growth of hair. Definite conclusions, however, are wanting.

A good description is given of the methods of skiagraphing the bones surrounding cavities; for example, the jaws, symphysis pubis, sacrum, and coccyx. The book, with trivial exceptions, is conscientiously and thoroughly written. It contains nothing new, and very little that does not find a place in the various textbooks. But it gives a succinct account of the various methods of examination by means of light, however obtained.

NOTES ON BOOKS.

The twelve plates for the diagnosis of colour blindness (*Tafeln zur Diagnose der Farbenblindheit*), with which Dr. WILIBALD A. NAGEL, of Freiburg u. Br., presents us (Wiesbaden: J. F. Bergmann. Glasgow: F. Bauermeister. 1898. 1s. 6d.) each bears a circle of large dots of some shade of purple, green, or grey. The circles and dots are all of the same size, but the colour arrangements of the dots is different on each plate. Thus, one circle is entirely made up of purple dots (of different shades), another of green, another of grey; or all three may appear in one circle, or only two. In the first test the patient is placed with his back to the light (good daylight) at a distance of 1 to 1½ metre from the tablets, and is asked to state, for each tablet in turn, whether he sees any red or reddish dots. Myopia, of any degree, should be first corrected. If the answers are correct, there is certainly neither red nor green blindness. A single fault would be suspicious. In either case the next test is carried out. The tablets are placed on a table in good daylight, and the patient stations himself in such a way that his eyes are about ¾ m. from them. He is now asked to point out those tablets on which the ring of dots is made up of one colour, and, if he chooses rightly, is asked to name the colour. Thus, for Tablet III, "purple," "red," "violet," or "lilac" may be accepted as descriptive of the colour. To make quite sure, he is shown Tablet IV (green and grey), and asked whether the dots are not of one colour; and similarly Tablet XII. Finally, he is required to point out with a pencil the green dots in Tablet IV, and the blue-green in Tablet II. If he does so correctly, without hesitation, he has good colour vision. For the person who fails to see any tablets on which the dots are of one colour, or picks out the wrong tablets, then tests with the tablets follow; also for the discrimination of red and green blindness, and violet (blue) blindness, and of colour blindness from colour weakness. All the tests are very simple, and, it would seem, easy of application. On page 12 of the accompanying text, IX is a misprint for XI. The author naively explains how with the tablets even the colour blind may examine the colour blind.

In *Some Health Aspects of Education*, Dr. PERCY LEWIS (London: Scientific Press, Limited. 1898. Crown 8vo, pp. 35. 1s.) lays down, in somewhat didactic form, the principles to be observed in a system of rational education. After some introductory remarks on nutrition of brain and body, in the course of which he recommends that "there should be a filter in every nursery, and the children should be allowed to help themselves (to water) when so inclined," he treats of the beneficial effect of judicious muscular exercise on brain condition. The characteristics of the neurotic and of the lethargic child are next pointed out, and it is shown how in each instance muscular and mental exercise should be regulated. The constitutional causes of backwardness are briefly referred to, and remedial measures suggested. The necessity of the medical inspection of schools and scholars is urged both in the interest of teachers and taught, and the question of school attendance by delicate children is judiciously discussed. This pamphlet (which seems to be founded on a popular lecture) will be read with interest by many parents who take an intelligent interest in the training of their children.

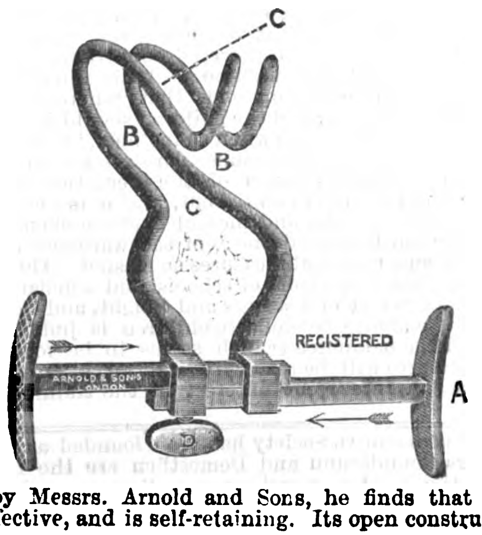
A GYNÆCOLOGICAL Society has been founded at Bucharest. Professors Romniceanu and Demosthen are the Presidents. Among the foreign members are Professors Schauta, of Vienna, W. A. Freund, of Strassburg, and von Winckel, of Munich.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

The Local Application of a Current of Hot Air.—Dr. R. Fortescue Fox (Strathpeffer Spa) writes: Among the various forms of local treatment, particularly in chronic affections of the joints, thermal applications have always taken an important place. Hot baths and douches make use of a watery vehicle, which, however, is subject to a rather low limit of temperature, say 120° F. By means of steam, a thermal application can be devised at a considerably higher degree of heat, and such contrivances have been found beneficial in softening the tissues and increasing the power of movement of stiffened joints, etc. By means of hot dry air it is possible as in the Turkish bath, to apply to the human body very much higher temperatures (and, therefore, more intense thermal stimulation), than any afforded by aqueous baths or vapours. During the last few years a closed metal cylinder, heated by a gas furnace, has been in use under the name of the "Tallerman-Sheffield Local Hot Air Bath," and several medical authorities have reported favourably on the results obtained by it in old standing cases of rheumatoid arthritis and other forms of stiff joints. It occurred to me to try the effects, not of a closed chamber, but of a current of hot air, and Mr. J. C. Stevens, of James Allen and Son, Marylebone Lane, has been good enough to construct the apparatus for me. It consists essentially of one of the powerful spirit lamps used by Messrs. Allen for their portable Turkish baths, connected with a wooden box. At one end the hot air, mixed with products of combustion, enters, and after circulating escapes by lateral flues. The upper or lower limb is introduced at the other extremity of the box and rests upon a padded support. The outflow of air is regulated by sliding valves. It is found that the arm or leg can bear with comfort a temperature of from 200° F. to 300° F. in this chamber. Free diaphoresis occurs, but the moisture is immediately carried away by the current of hot air. The skin therefore usually remains nearly dry, and becomes of a deep red colour; the temperature of the limb is raised several degrees, and that of the entire body to a small extent. Experience with this apparatus during the past year at Strathpeffer Spa has been of an encouraging character, and goes to show that thermal stimulation at high temperatures affords a valuable means of stimulating the nutrition of the parts and promoting movement.

Parallel Expanding Rectal Speculum.—Dr. James MacMunn, London, E.C., writes that after a fair trial of a speculum made for him by Messrs. Arnold and Sons, he finds that it is simple, effective, and is self-retaining. Its open construction affords an extensive field, and allows of many manipulations; thus C C and B B are open spaces. To open the instrument grasp A and A in the hand and approximate them, or with obdurate sphincters place a thumb in C and approximate C and A. The resistence of the sphincter is thus met by the intelligent power of the hand, and not by a lever or screw. To withdraw, see that D is loose and press blades together. The instrument is shown partly open.



THE REPORT OF THE MEDICAL OFFICER OF HEALTH OF LONDON FOR 1897.

II.

VITAL STATISTICS *(continued)*.

Measles.

THE deaths from measles in the Administrative County of London during 1897 numbered 1,933, and furnished a rate of 0.43 per 1,000 per annum—a figure which does not amount to much more than half of the high rate of the preceding year, when measles became extensively epidemic. As would be expected from their relatively high birth-rates and from the large numbers of the poorer classes that are housed in them, the eastern group of districts had the highest mortality from the disease. Many interesting extracts are given from the reports of medical officers of health dealing with the prevalence of measles among school children, the benefit of school closure, and the value of notification of this complaint under the Infectious Disease (Notification) Act, 1898. Attention is drawn by more than one medical officer to the fact that although the Code of Regulations of the London School Board requires that the medical officer of health of the district shall be informed of a child's exclusion on account of symptoms of infectious disease, it is rarely that effect is given to the regulation so far as measles is concerned.

Scarlet Fever.

The death-rate from scarlet fever was 0.17 per 1,000 living, which is the lowest rate since 1891. In the distribution of the scarlet fever mortality in London the central group of districts had the highest rate during the year as a whole, and the northern the lowest—the rates for St. Marylebone and Stoke Newington being only 0.06. Testimony of infection through school attendance is collected from the reports of many medical officers of health. More especially does Dr. Harris of Islington go into this subject; he tabulates the mean prevalence of scarlet fever for each week of the period 1890-97 in three sections of the population, namely those under 3 years of age, those from 3 to 14, and those aged 14 and upwards; he then shows that whereas in the first and third section there was increase of scarlet fever in the holiday month of August, there was in the second section, which comprises children of school age, some decrease; and that whereas in September there was a slight increase of cases among children of pre-school age, and in persons of past school age a slight decrease, the number of cases in children of school age showed a most marked increase. Some interesting facts are also given with reference to the seasonal variation in the age and sex distribution and fatality of this disease.

Diphtheria.

Whereas the case-rate from diphtheria was one of the highest which has been recorded for London since the Infectious Disease (Notification) Act came into force in 1889, the death-rate (0.50) was the lowest since 1892. In default of any evidence of a natural attenuation of the virulence of the disease, such as scarlet fever presents, it is probable that the marked fall in the case-mortality has resulted from the more successful treatment of the disease, and doubtless the more general and prompt use of antitoxin is in no small measure responsible for the superior results.

In the distribution of diphtheria mortality the eastern districts of London suffered most, the western the least.

Many extracts from their reports show the metropolitan medical officers of health to be in very general agreement upon the influence which school attendance exerts upon the spread of this disease as well as that of scarlet fever and of measles. For the purpose of ascertaining whether in 1897, as in previous years, there was a decrease of diphtheria prevalence among children of school ages during the summer holiday, Mr. Shirley Murphy has prepared the following table:

Diphtheria—Notified Cases, 1897.

Period.	Notified Cases—Ages.			Increase or Decrease per cent.		
	0—3.	3—13.	13 and upwards.	0—3.	3—13.	13 and upwards.
Four weeks preceding weeks of holiday influence (27th to 30th)	168	707	284	—	—	—
Four weeks of holiday influence (31st to 34th)	153	504	250	—8.9	—28.7	—12.0
Four weeks following weeks of holiday influence (35th to 38th)	152	657	266	—0.7	+30.4	+ 6.4

From this it will be seen that the decrease in the number of cases notified during the period of holiday influence and the subsequent increase in the following period is most marked at the school age.

Whooping Cough.

The death-rate from whooping cough (0.41) was somewhat below the mean-rate for the past few years, and in this disease the mortality was highest in the central group of districts.

Enteric Fever.

Enteric fever furnished a death-rate of 0.13 and a case-rate of 0.7 per thousand living as compared with the corresponding rates of 0.12 and 0.7 in the preceding year. In the distribution of enteric fever mortality during the year the central group of districts, headed by the City, had the highest and the southern group the lowest death-rate.

Many extracts are given from the reports of medical officers of health which bear testimony to the part which oysters undoubtedly play in the dissemination of the disease.

Diarrhœa.

The diarrhœal death-rate (0.92) was the highest recorded for several years. From a group of disorders the incidence of which is so closely linked with the artificial or improper feeding of infants, overcrowding, and neglect, the poorer districts of London of course furnish the highest mortalities; indeed, if allowance were made for differences of age and sex distribution, the diarrhœal mortality would be found to reflect very accurately the comparative social status of the different districts. The intimate relationship between the mean temperature of the summer quarter and the amount of diarrhœal mortality in different years is indicated in a diagram.

Tuberculosis.

There were 7,645 deaths from phthisis in the administrative County of London during 1897, and these furnish a rate which slightly exceeds that of the preceding year. The central group of districts suffered most severely; the western group the least; and in the several districts the rate is seen to vary greatly—from 0.74 (Hampstead) to 3.36 (Strand).

A useful diagram shows the relationship between phthisis and overcrowding. From the data furnished by the census of 1891 it is possible to show the proportion of the population of each district occupying tenements of one, two, three, and four rooms, in which there were more than two persons to a room, and employing the term "overcrowding" to represent such conditions, and grouping the various districts in accordance with the proportion of "overcrowding" shown by the census figure of 1891, Mr. Shirley Murphy shows how the phthisis death-rate follows the order of overcrowding. Such overcrowding, it must be borne in mind, includes many associated adverse social conditions which exercise a powerful effect upon the origin and course of the disease, as well as the overcrowding *per se*. The more overcrowded groups of districts are shown to have higher death-rates at every age-period than the less overcrowded groups.

Other Diseases.

The deaths from puerperal fever, influenza, bronchitis, and pneumonia were all below the corrected average of the preceding ten years.

REPORT OF THE MEDICAL OFFICER OF THE LOCAL GOVERNMENT BOARD (ENGLAND) FOR 1897-98.

II.

SCIENTIFIC INVESTIGATIONS.

BACILLUS ENTERITIDIS SPOROGENES.

DR. KLEIN has given a full account of the morphological and cultural characteristics of this bacillus, and includes some observations on its occurrence in milk, excrement, and sewage. This anaërobic organism, which Dr. Klein identified in 1895, has been shown to occur in the intestinal contents and fæcal discharges of patients suffering from infantile or autumnal diarrhœa, though not to be obtained from healthy people or those suffering from casual diarrhœa. Dr. Klein has been able to explain some of the cultural difficulties encountered by Dr. Andrewes. It is a flagellate, spore-bearing, liquefying, aërogenic anaërobe. The vegetating bacillus forms non-liquefying colonies, whereas the spores produce colonies that rapidly liquefy gelatine. There is also a marked interchange in gas formation and peptonising action. Milk is the best medium for cultivation, and pure cultures are obtained by taking advantage of the spore formation. The virulence either of spores or bacilli may become attenuated, but this can be restored when only partially lost. Many problems connected with this microbe still require elucidation, for example, what conditions determine spore formation, what toxins are formed, and whether a serum reaction can be obtained, but Dr. Klein has undoubtedly made a most important contribution to the subject.

THE CHEMICAL AND BACTERIOLOGICAL EXAMINATION OF SOIL.

The enumeration and identification of the micro-organisms that taken altogether form the bacteriological flora of various kinds of soil is a vast task, of which only the fringe has yet been attacked, and yet it is a highly important branch of knowledge to the hygienist. For as knowledge on the subject accumulates it may be possible to prophesy the flora of a water, provided its origin is known; and hence, if the flora should vary widely from the standard for a water derived from a particular class of soil, this in itself might be taken as evidence of contamination, and comparatively slight further investigation should then reveal whether this pollution is due to sewage or not. Dr. A. C. Houston points out that many of the bacteria found in surface soils do not commonly occur as water organisms, hence the discovery of these particular organisms would indicate a contamination with "flood water," which may be (and often has been) a real danger to the community. He finds that chemistry cannot differentiate between recent contamination with animal excretions and high organic constituents due to vegetable matter when the ordinary chemical processes are applied to soil, whereas bacteriologically more definite evidence is obtainable. He was able to detect the B. coli and B. enteritidis sporogenes in certain soils, and with greater ease and certainty in those that had been recently manured than in virgin or sandy soils. This being so, Dr. Houston believes, and in this Dr. Klein concurs, that in the B. enteritidis sporogenes we have a new test for contamination of soils, and therefore of water derived from them.

BACTERIOLOGICAL EVIDENCE OF POLLUTION OF POTABLE WATERS.

In a report on this subject, Drs. Klein and Houston emphasise the failure of chemistry to detect pollution of water with minimal quantities of sewage. Sterile distilled water was infected with sewage in varying degrees, representing dilutions of sewage ranging between 1 in 100 and 1 in 20,000. Chemically they found that the majority of these waters would have been classed as at least organically safe drinking water, but in each and all the B. coli and the B. enteritidis were detected.

THE GROWTH OF THE TYPHOID BACILLUS IN SOIL.

Dr. Sidney Martin has continued the work done by him on this subject, as to which a report was presented last year. He showed then that in organically contaminated soils, sterilised, the typhoid bacillus lived and multiplied, but that in sterilised virgin soils it died out. These observations are verified and extended. The temperature at which the experiments were conducted appeared to exert only slight influence on the results. The labour of recovering the typhoid bacillus from soil not sterilised is very great, but Dr. Martin records a single experiment in which he succeeded in recovering the typhoid bacillus from an unsterilised soil, fifty days after its inoculation. This is undoubtedly a most valuable contribution, and should encourage Dr. Martin to continue his experiments.

MICROBES ASSOCIATED WITH SCARLATINA.

Dr. Klein makes a further report on the streptococcus, named S. scarlatinæ or conglomeratus, isolated by him from the throat and nasal discharge of patients suffering from scarlatina. It is not found in the desquamating skin, urine, or aural discharge. Dr. Klein expresses the opinion that it is the persistence of this organism in the throat of patients discharged as cured which gives rise to the "return cases." He emphasises his observation that it has the power of forming acid in milk and of clotting that medium in from one to three days. Illustrations of its growth in various media are appended.

GLYCERINATED CALF LYMPH.

Dr. F. R. Blaxall gives an account of a year's further experience in vaccinating the calf, collecting the lymph, and glycerinating it. The success of glycerinating was in nearly all cases complete within four weeks. Where cultures showed it to be non-sterile, at the end of that period the bacterium proved to be either B. subtilis or B. mesentericus vulgatus. These, however, could be excluded by scrupulous attention to the cleansing of the vaccinated area. Dr. Blaxall also found that added tubercle bacilli died out at the end of a month in the glycerinated vaccine, and were incapable of infecting the guinea-pig. Also, in his experience, at the end of nine months such glycerinated lymph was invariably successful when used on infants.

THE MICROBES ASSOCIATED WITH VARIOLA.

Dr. Klein describes additional experiments which he has made on the B. albus, a bacillus isolated by him from the scabs of human variola; cultures of this micro-organism were injected subcutaneously into calves and monkeys. In neither animal was any marked effect, either local or constitutional, produced. The monkeys died of some form of diarrhœa, but the calves recovered, and were all found at the end of four or five weeks from the termination of the experiment to be in no way protected against typical vaccinia when vaccinated with animal vaccine lymph.

INVESTIGATIONS ON MALARIA IN ITALY.

REPORT BY PROFESSOR CELLI.

(Concluded from page 96.)

PROFESSOR CELLI stated that the parasite of spring tertian is now cultivated in the body of anopheles claviger. Fermi has tested a hunded substances believed to have "culicifuge" properties, using them in the form of inunction, which is best adapted to the habits and the necessities of life in the open-air of the workers in the season and in places where malaria is rife. He has thus demonstrated that two substances at least have all the necessary qualities for this purpose, and with them he proposes to make extensive prophylactic experiments on man in the coming malarial season.

This year Celli himself has been able to make an experiment on a large scale on the prophylaxis of bovine malaria in two contiguous farms worked by Lombards. In the Cervelletta farm, where the disease was formerly very prevalent, all the cows were always kept in the stalls, to prevent them being attacked by ticks, and if any of these appeared it was quickly removed. Regular treatment with arsenic was also adopted.

In the whole of this farm, which is a very large one, not a single nimal suffered from malaria, while in the contiguous farm of Roca di Leoni, where no prophylaxis was carried out, and the cows were allowed to graze in the fields, in one week all were taken ill and 54 per cent. of them died from malaria; Grassi found in one an enormous quantity of the riphocephanus, the same species of tick which in America propagates the same disease.

The financial importance of these experiments is evident. In comparatively recent times bovine malaria has killed in the Roman Campagna whole herds of milch cows, and destroyed extensive irrigation works, and large industries in cheese-making. To-day science can suggest means of avoiding these disasters and to repair them.

With regard to natural immunity, two years ago Celli and Santori found that inoculations of the serum of the blood of animals immune to every species of malaria sometimes succeeded in lengthening the period of incubation of experimental malaria.

The researches, continued throughout the past fever season, have given the following results:

1. The principles on which serum immunity and serumtherapy are founded are of no value for malarial infection. In fact, it is beyond question that the serum of the blood at the beginning of the fever contains a pyrogenic substance, and it is certain that the serum itself in the defervescence of the fever has not an immunising property either for the patient himself (active immunity) or for others (passive immunity), and on the latter it has no curative action, just as the serum of the blood of cases of spontaneous cure and of immune individuals has no immunising action. Celli and Santori are continuing the experiments to discover whether the cellular elements of the blood in the above-mentioned conditions contain some toxic principle, immunising or curative.

2. The inoculation, even frequently repeated, of the blood of bovine malaria does not protect man from malaria, as the serum of the blood of cattle cured of their malaria does not protect him.

3. Neither have experiments in regard to serum immunity with organic juices (brain, spleen, bone marrow) of cattle that live in a very healthy state in malarious regions, hitherto given results positively favourable for man.

4. The serum of the horse's blood treated for a long time with large progressive doses of quinine has proved to be inefficacious both as a preventive and a curative of malaria both in man and cattle. Immunity against the natural infection of malaria may be congenital or consecutive to long-continued disease. Congenital immunity may sometimes be maintained with a life of toil, with diminished feeding, with excessive work. Such immunity is more stable than when it is consecutive. It rarely resists experimental infection, that is, by inoculations of large doses of blood containing malarial parasites.

Dionisi has found parasites perfectly analogous to those of human malaria in some species of bats; that is, he has found a pigmented parasite similar to one of those of the spring fevers of man, and a parasite without pigment resembling that of æstivo-autumnal fevers of man. And Casagrandi, in his researches on malaria of animals of the Pontine marshes, has observed parasitic forms within the red corpuscle of a small mammal of the Campagna.

Dionisi also studied in the summer and autumn of last year how anæmia is established in the various malarial infections, what special characters it presents in the various febrile types, and what quantitative and qualitative alterations of the blood take place in nephritis from malaria and in hæmoglobinuria; while, on the other hand, Santori has prepared a map of malaria in the province of Rome, on the basis of the statistical and meteorological observations of the last decennium. All these investigations will be pubilshed *in extenso* in the *Transactions* of the Society.

Professor Celli concluded by referring to the fact that in India England has for the study of malaria placed such means at the disposal of Ross as to enable him to telegraph from Calcutta to Edinburgh a full account of his splendid researches. Germany has equipped, through the initiative of the Colonial Society, a grand scientific expedition with Koch at its head, who during the past summer visited Italy. Belgium has provided 50,000 francs for the study of malaria in the Congo. Italy, he said, where malaria keeps about 5 million acres uncultivated, and every year on an average attacks 2 millions of its most useful sons, and kills 85,000, cannot, must not, remain behind in this noble scientific competition.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1899.

SUBSCRIPTIONS to the Association for 1899 became due on January 1st, 1899. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, JANUARY 21ST, 1899.

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SECONDARY EDUCATION AND THE PRELIMINARY EXAMINATIONS.

III.—THE VIEWS OF THE TEACHERS.

"*Educo, educavi*, and I ought to know something about it by this time," sing the headmasters; "*Educandum est* a little better than heretofore," sing the British parent and the Duke of Devonshire; "*Educabor, educabor*," woe is me! sing the ungrateful rising generation and Dr. Clement Dukes. In truth, the teachers have set the public a fine holiday task these holidays. It has rained headmasters most days, and poured elementary teachers and technical educators on the rest. They have all had their say or their says, and they have sometimes all talked at once, until the hearers have become a little confused. But there is one comfort; when teachers fall out, the parent may come by his own, and we can now take some stock of the subject and see where we stand.

It is evident to the meanest capacity that there are three interests involved in the matter, and that these three are by no means at one. The headmasters, who represent secondary education, were the first to make their views heard in the Headmasters' Conference at Shrewsbury before Christmas, and they have reappeared at the Guildhall this week as the Headmasters' Association. They with a few exceptions welcome the Duke's proposal to take public care of secondary education, but among the exceptions is one, Mr. Philpotts of Bedford, whose opinions are of great weight. His fear is that the schools are giving up their freedom and individual character while they have nothing to gain from the Government, and may by incompetent and unjust inspection lose a good deal. Next the headmasters emphatically assert that secondary must be kept clear of elementary education, that they must be managed by a separate department with special inspectors, and that since the two forms of teaching differ in their aims, in the things taught, and in the persons taught, no experience drawn from the one will be of use for the other. Thirdly, they strongly urge the creation of local authorities, in which they naturally wish to see themselves represented, and lastly they think that the Advisory Council, which is one of the provisions of Colonel Lockwood's Bill[1] should be a permanent body. The most important utterance was the speech of Professor Jebb, M.P., at the Goldsmiths' Hall. He sought to dispel the fear of red tape and official officiousness which had been in the mind of Mr. Philpotts. He thought that they had better not expect or urge that the local authority should form part of the Bill, but that it would more easily be created by a second; he pointed out that the separation of secondary not only from elementary but also from technical education was expressly indicated in the Duke's speech, and he adopted the opinion of the headmasters that the Advisory Council should be of a permanent character.

Meanwhile the National Union of Teachers, by the pen of their chief officers,[2] have been giving vent to feelings of a different nature. The chief part of their letter deals with technical education alone, but in the concluding paragraph they claim "that secondary and technical education must be treated as part of an organic whole; must be based upon or dovetailed in with efficient primary education, and must be managed by an authority which shall contain a fair proportion of persons whose experience in the management of public elementary schools entitles them to be heard, and enables them to give guidance in the co-ordination of one degree of education with another." This directly traverses the resolution of the headmasters quoted above. The aim is no doubt to facilitate the passage of clever boys from Board schools or national schools into grammar schools and public schools; but while we should all sympathise with the intention, it is probable that it would be equally well carried out without introducing elementary teachers into the government of secondary education with which they are not familiar.

The rest of this letter is an attack on the local bodies which are at present springing up for the organisation of technical education. They are subject to the approval of the Science and Art Department of South Kensington, and the burden of the National Union of Teachers is that the School Boards are not represented upon them. At the same time the letter makes a savage attack, which is not likely to win public sympathy, upon the Science and Art Department itself.

A counterblast is issued by the Association of Directors and Organising Secretaries for Technical and Secondary Education. This represents counties and county boroughs who have formed committees for this purpose. These committees no doubt are a fair sample of what the local authorities will be when they take bodily shape. Their members look upon the matter from the point of view of the public official, and evidently feel towards the teachers much as the governing body of some hospitals feel towards their medical staff. They think the teachers should know their place, and they have no intention of being dictated to.

This being a quarrel between two sets of public servants upon a rather special matter concerns little the cause of secondary education, in which chiefly we are interested. But it shows unmistakably that a central authority to keep the peace will be of considerable benefit. It is with secondary as apart from technical education (the two are mixed up and confused in the above quarrel, which is solely on the subject of technical education) that we are here concerned, and in the matter of the present Bill we shall very cordially support the views which the headmasters have put forward.

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[1] BRITISH MEDICAL JOURNAL, January 14th, p. 100.

[2] See a letter to the *Times* of December 23rd, 1898.

The meetings and letter above referred to have dealt with the Government control of schools, as embodied in the Duke's Bills and in that of Colonel Lockwood. Meanwhile an important series of meetings have been carried on at the College of Preceptors, to consider methods of education. With these we hope to deal in a future issue.

IMPERSONATION AND THE "MEDICAL REGISTER."

THE extraordinary case of impersonation disclosed by the hearing of the case Regina *v.* Nugent alias Rowland tried at the Old Bailey last week deserves more than passing notice. That an unqualified man should have been able to get himself placed on the *Medical Register*, assuming the name, style, and titles of a medical practitioner formerly registered will come as an unpleasant surprise to members of the medical profession in this country, since it might reasonably have been supposed that precautions would be taken by the General Medical Council to prevent the possibility of such an occurrence. It came out in evidence at the police court that the Secretary of the Medical Defence Union as far back as May, 1895, became aware that a person calling himself Edward Joseph Nugent was practising medicine in Barking Road, Canning Town, E., that there was no such name upon the *Register*, and that there existed considerable doubt as to his real identity.

The Secretary accordingly wrote a warning letter to the practitioner, inviting him to make any explanation he could. At a subsequent interview "Nugent" was distinctly charged by the Secretary of the Union with being an impostor and with having assumed the name and qualifications of the real Edward Joseph Nugent, his own name being Rowland. These charges were, it is stated, indignantly denied by Rowland—as we may now call him. The explanation he gave was that, owing to his having been travelling, his name had been erased from the *Medical Register* under Section XIV of the Medical Act, 1858. A demand was also made by Rowland for the name of the informer so that he might proceed to take action for damages for libel. This request was, of course, refused, and the Secretary of the Union, being satisfied that he had to do with a case of impersonation, wrote to the General Medical Council on May 25th, 1895, suggesting that, should the Council receive an application for registration from a person calling himself Edward Joseph Nugent, the Registrar should, before effecting such registration, communicate with him, and giving reason for the request.

Unfortunately, it appears that this warning did not receive at the office of the General Medical Council the attention which it merited; and whilst the Union was collecting evidence for prosecuting Rowland under Section XL of the Medical Act, 1858, registration was effected with the Branch Council in Ireland. It would appear that no communication impressing extra care upon the Registrar of the Branch Council for Ireland in reference to this registration was sent from London, and therefore the usual course was adopted, and the name restored to the *Register*.

It appears that Rowland induced by some means—which will no doubt form the subject of inquiry—a registered practitioner to identify him as the real Edward Joseph Nugent, and to sign the formal notice of such identification, stating that the applicant was the same person, with the same qualification originally registered in 1866. Registration having thus been effected, the prosecution proposed under the Medical Act had to be dropped by the Union.

The facts disclosed in this case make it quite clear that the usual course adopted by the General Medical Council for identification of persons desirous of having their names restored to the *Register* is unsatisfactory. It is true that, by a Standing Order of the General Medical Council, no application for restoration to the *Register* shall be entertained unless it be accompanied by a certificate of identity from a clergyman, a magistrate, or a registered practitioner, or by such evidence of identity as the Council or the Executive Committee may find sufficient. The certificate of identity used is in these terms: "I hereby certify that ———— is the same person whose name formerly stood in the *Medical Register*, with the address ————;" and then follow the signature and address of the person identifying. An unscrupulous applicant would obviously have very little difficulty in stultifying this safeguard; a written certificate of identity is not worth the paper on which it is written; for if a man is sufficiently unscrupulous and audacious to desire to personate another, he is not likely to stick at forging the name of a registered practitioner to the certificate of identification. Under the existing regulations, the probability of detection would not be great. It would perhaps render the risk of forgery less if, on receipt of the application form, the Registrar were directed to communicate directly with the registered practitioner whose signature is purported to be affixed to the document of identification, and so require confirmation of such signature. But in the case of Rowland, this precaution, it would appear, would not have sufficed.

It is quite clear that at the next session of the General Medical Council steps must be taken to revise and strengthen the regulations under which names are now restored to the *Register* after having been removed under Section XIV. The profession must be saved from such scandals as have been happily brought to light in this case, for the scandal by no means ended with the condemnation of the impostor Rowland. Nugent, the real practitioner, left his diplomas in the hands and for the use of an unqualified person in consideration for the sum of 3s. 6d. a week to be paid to his wife during his absence in the Colonies. Again, the personating practitioner not only succeeded in obtaining entrance upon the *Medical Register*, but actually practised for some four years with impunity, and the long-continued watchfulness of the Medical Defence Union has only at last been successful in bringing him to trial owing to the carelessness of the personator himself. He has now been convicted on the charges of manslaughter and perjury, and has been sentenced to three years' imprisonment for each crime, the sentences to run concurrently; and it cannot be said that the punishment is severe having regard to the very grave nature of the offences. The importance of the case, however, altogether transcends the particular fate of the convict, since it discloses the way in which a rascal may slip on to the *Medical Register* under the name of a registered medical practitioner whose name has dropped out owing to the operation of Section XIV of the Act of 1858.

THE DEPOPULATION OF FRANCE.

THE returns for 1897 just issued will afford some encouragement to those patriotic Frenchmen who have endeavoured to arouse their countrymen to the serious danger to French prosperity and influence which the decline in the birthrate recorded for many years past is calculated to entail. The subject is one which should interest the people of this country also because there can be no doubt, as Dr. Henry May has shown, that a similar process, probably due to similar causes, is in operation here. The French returns show that in 1897 the excess of births over deaths—in round numbers 859,000 births to 731,000 deaths—was due, not to an increase of births, which were 6,000 below the number in 1896, but to a further diminution in number of deaths, which in 1896 had been 771,000.

The whole subject of the stationary, and in certain provinces the rapidly declining, numbers of the French population, has recently been discussed by M. Arsène Dumont,[1] who goes so far as to compare France to a sick branch of the tree comprising the human race, and then proceeds to discuss the nature, causes, and possible remedies of the malady. It is unnecessary to state here the elaborate statistics, showing that if the French population be separated from the foreign population living in France, there has been for several years past, an actual excess of deaths over births. The disease, it is true, is a chronic one, marked by remissions. Thus 1893 did not show so great a deficiency as the three preceding years, and in 1894 there was an excess of 45,000 births over deaths. The disease is nevertheless progressive, and it cannot be said to have been hitherto arrested. A study of the different parts of France shows that the disease tends to spread like a contagious malady, neighbouring provinces which had hitherto showed an excess of births over deaths gradually becoming implicated. This social malady, in M. Dumont's opinion, furnishes a striking proof of the fact that the nation is a living entity, and more than an aggregation of individuals. We may accept this as a figure of speech, but it is clear that in the ultimate analysis the stationary condition and tendency to decrease of the population of France are caused by the default (voluntary or otherwise) of a large proportion of the married people in France to become parents, leading to the disease which Aristotle called oliganthropy, which killed some of the great races of antiquity, and now threatens France. The result is governed in the main by the fecundity of marriages. Hence the following comparative figures are of great importance: For every 1,000 married women, the number of annual legitimate births in France is 115, as compared with 184 in Belgium and Italy, 176 in Switzerland, 186 in Norway, 190 in England and Wales, 202 in Germany, 205 in Scotland, 206 in Prussia, and 216 in Würtemburg. Taking the census returns of 1891, we find that 20 per cent. of the total families in France had more than 4 living children in each; 15 per cent. had 3 living children in each; altogether 35 per cent. of the total number of families had a sufficiency of children to prevent the population of France from becoming stationary. On the other hand, 22 per cent. of the total families had only 2 living children, and 24 per cent. had 1 living child, leaving 19 per cent. without children. Attention is drawn by M. Dumont to the fact that this smallness of families has occurred along with a far from universally diffused knowledge of the voluntary means that have been the chief cause that 46 per cent. of married couples have not more than two children or only one; and that in a large number of other instances the non-occurrence of smaller families has been due merely to the ignorance of parents of the artificial means for bringing this about. "*La bourgeoisie*" refuses the responsibility of being chargeable for more than two children; "*le peuple*" accepts it, if not willingly, still patiently. Perhaps in assigning a happy state of ignorance as a chief cause of the greater fecundity of the peasantry in France M. Dumont does not ascribe sufficient importance to the fact that a much larger proportion of the peasantry than of the middle classes in France are Roman Catholic, and the practices indicated above are strictly forbidden by the Roman Catholic Church.

Other explanations than the above have been advanced to explain the infecundity of the French population. It may be somewhat flattering to French sentiment to argue with Herbert Spencer that individual evolution is in antagonism to the procreative faculty, but we are unable to agree that there is a tittle of evidence to show that the higher intellectual attainments of the French are responsible for their relative infecundity. Nor can the painful analogy between old age in the person and in the community mislead those who study the question dispassionately. The French in Canada have a very high birth-rate, so likewise have the Italians.

Emigration from France is but slight, and the death-rate, although higher than it ought to be, does not account for the stationary population of France. It is, in fact, due to its low birth-rate; and M. Dumont, in the next place, shows that the voluntary curtailment of the family, as already indicated, is the cause of this low birth-rate. Three, and still less two, children to a family do not suffice, in view of the number of sterile marriages, to maintain the population. The evil is caused by each married couple regarding themselves as individuals, without any regard to the general good of the community. It will be seen from this view of M. Dumont's argument that he does not occupy the high platform of those who object *in toto* to artificial measures directed against conception in connection with married life. In not taking this position, he appears to us to miss an argument which would appeal to a much larger proportion of the community than any other. He is contented with pointing out that Malthus was a bad prophet; that in France it is depopulation and not over-population which is to be feared. That Malthus was unable to foresee this was due to the absence of demographical statistics, which have only come into existence since his day.

Whether selfishness will extend and become supreme at the expense of the general good, and France become in consequence a second or even a third-rate Power in the world, remains to be seen. The question has a wider aspect, which we can only mention in conclusion. The birth-rate in England and in other countries is declining, though not with the rapidity of its decline in France. This decline is probably due largely to the same causes as in France. The future of the world's history depends largely on the question as to which races will continue to multiply and to colonise until the limits of colonisation have been reached, when other races have, through the exercise of selfish prudence, ceased to take part in this colonisation, and upon the relative excess of births over deaths in the different European countries, preceding the stage at which other nations like France may have ceased to any material extent to add to the emigrant population.

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[1] *Natalité et Démocratie*, par Arsène Dumont, Membre des Sociétés d'Anthropologie et de Statistique de Paris. Paris: Schleicher Frères, 1898, p. 232.

THE BRITISH MEDICAL ASSOCIATION AND THE COLONIAL OFFICE.

LAST year the Legislature of Jamaica passed a law (No. 22) "to provide for the notification of infectious diseases;" this law imposed on medical practitioners in the colony the duty of notifying cases of infectious disease under penalty of a fine of 40s., but provided no payment for the obligation thus imposed. The Jamaica Branch of the British Medical Association forwarded a communication to the Council of the parent Association on this subject, and the President of the Council immediately addressed a letter to the Secretary of State for the Colonies calling his attention to this provision of the new Jamaica law, and pointing out the injustice of imposing the duty of notifying infectious diseases on members of the medical profession without at the same time providing that remuneration should be paid for this service, though the Act contained a severe penalty against any practitioner who failed to notify it. A reply was immediately received from the Colonial Office to the effect that the Jamaica law was under consideration, and that the objections to it formulated by Dr. Saundby, as President of the Council of the British Medical Association, would receive careful attention. We are glad to be able to announce that a letter has been received from the Colonial Office, and was communicated to the Council at its meeting on January 18th, giving the result of the investigation made by the Colonial Office. Mr. Chamberlain states that the Governor of Jamaica has been instructed to introduce a law to amend Law 22 of 1898, and to provide for the payment of fees to medical practitioners for notifying infectious diseases, and to protect them from any legal consequences of such notification. The text of the amending law has not yet been received, but the prompt and decisive action taken by Mr. Chamberlain shows that he thoroughly grasps the point at issue, and is ready to take very decided steps to prevent the infliction of an injustice upon the members of the medical profession by a Colonial Legislature. The incident is a good illustration of the services which such a world-wide organisation as the British Medical Association is able to render to its members, and of the readiness of Cabinet Ministers to give attention to representations made to them on behalf of the Association. We cannot let the occasion pass without an acknowledgment of the manner in which the Colonial Secretary habitually receives representations made to him on behalf of the Association. Mr. Chamberlain's manner of replying to such representations, and still more the prompt and clear-sighted way in which he deals with them, are a refreshing contrast to the circumlocution and hesitation, which taken together seem often to amount to indifference, displayed by some other departments of the Government.

THE NEW POISON REGULATIONS.

THE action taken at the special general meeting of the Pharmaceutical Society of Great Britain last Wednesday week has been very generally misunderstood, and in some instances misrepresented by the press. It was an exercise of the power conferred upon the Society to prescribe regulations as to the keeping, dispensing, and selling of the articles which are poisons within the meaning of the Act. The regulations then adopted relate principally to the keeping of such articles in a manner calculated to prevent mistakes in dispensing medicine and in their sale. For that purpose each vessel or package containing an article of the kind referred to is to be labelled with the name of the article it contains, and also with some distinctive mark indicating that it contains poison. As a further precaution against mistaking any vessel or package containing a poison for another, each one is (1) to be kept secured in a manner different from the vessels or packages containing ordinary articles in the same warehouse, shop, or dispensary; or (2) the vessel containing a poison is to be rendered distinguishable by touch from those in which ordinary articles are kept; or (3) the vessels or packages containing poisons are to be kept in a room or cupboard set apart for dangerous articles. In the case of liniments, embrocations, and lotions containing poison, the bottles in which they are dispensed or sold are to be rendered distinguishable by touch from ordinary medicine bottles, and in addition to being labelled with the name of the contents, each bottle is to have a label giving notice that the contents are not to be taken internally. These regulations having been made by the Pharmaceutical Society in conformity with the provisions of the Pharmacy Act, 1868, they will on receiving the consent of the Privy Council have the force of law in the same manner as the other regulations as to the sale of poisons, which are set forth in the Act. In future, it will therefore be unlawful for any person to sell, or keep open shop for retailing, dispensing, or compounding poisons unless conforming to these regulations, and any such persons failing to observe the regulations will be liable to a penalty of £5 for every offence. It is mainly in regard to this compulsory bearing of these regulations that the action now taken will be productive of practical difference in procedure. The regulations now prescribed as part of the Act were in fact drawn up by the Council of the Society soon after the passing of the Act. In 1871 they were adopted as recommendations which have since been very generally acted upon by registered chemists and druggists. At that time the proposal to make these regulations compulsory met with considerable opposition and the alternative of recommending their observance was considered by the Privy Council to be an insufficient exercise of the powers conferred upon the Pharmaceutical Society, by which the entire body of registered chemists and druggists were enabled to enjoy the privilege of autonomy in an exceptional manner. The present action of the Society may fairly be regarded as evidence of improved opinion in that respect, which is in every way satisfactory so far as the interests of the public are concerned, and to the credit of the pharmaceutical body.

SECONDARY EDUCATION AND THE PRELIMINARY EXAMINATIONS.

MR. H. W. EVE, the Dean of the College of Preceptors, in a letter which was published in the BRITISH MEDICAL JOURNAL of January 14th, p. 123, drew attention to an error in the statistics quoted in a leading article published in the preceding issue. We regret the error, which was due to the fact that the publication of the article, which was founded on the text of the Education Committee of the General Medical Council, had been delayed, and that by an oversight the error in this report pointed out by the College of Preceptors was not corrected in the article. But though the correction is no doubt of some importance from the point of view of that College, the practical issue in which we are interested is not affected. For, if the report be read, it will be found that the recommendation that the particular examination be no longer recognised was by no means based upon the statistics, true or false, but that the supposed statistical facts called attention especially to this examination, which was then closely investigated by means of inquiries addressed to a number of headmasters, and by a scrutiny of the papers, answers and marks allotted, which were, by the courtesy of the College of Preceptors, placed at the disposal of the Committee. The result of this extended inquiry was that the Committee came to the conclusion that this (the only examination thus completely investigated) was not of a sufficiently high standard for retention; but at the same time the Committee announced their intention of recommending at no distant date the removal from the list of some other low grade examinations. The Council, thinking that in this the Committee hardly went far enough, referred back this part of the report in order that a date might be fixed for further changes in the same direction. Hence this examination would not have been retained for any length of time, and the complaint of the College of Preceptors merely applies to its having been specially singled out. The College contends that the examination is equal to some of those which are for the present retained. That is a matter of opinion, and the Committee—rightly or wrongly—thought otherwise. Mr. Eve—as perhaps we all are inclined to do when dealing with statistics—has, we are disposed to think, somewhat strained the grounds of his argument. That the gentlemen whose preliminary education was deemed insufficient form but a small percentage of the whole number of those who choose this avenue for obtaining registration does not seem to affect the question, for the Committee were not directly concerned with the educational acquirements of the average medical student, which are well known to be not entirely satisfactory, but with the attempt to discover something about the worst of them. As it is a strong measure for examiners in technical subjects to stigmatise the candidate in respect of his general education, we may take it that when they do so the deficiency is extreme, and that the cases will necessarily not be very numerous. If the Committee were in error in supposing that the particular examination of the College of Preceptors is of less stringency than the University Junior Local Examinations, that is a matter between them and the College of Preceptors, but so far as the medical profession is concerned no one can reasonably doubt that this examination has been rightly removed from the list, and that the Junior Local Examinations should follow it.

TUBERCULOSIS IN POOR-LAW INFIRMARIES.

THE statement made by the medical officer of the Lambeth Infirmary at a recent meeting of the Board of Guardians appears strongly to bear out the observations recently made in the BRITISH MEDICAL JOURNAL as to tuberculosis in the parochial infirmaries of London. We gather that during the year just closed out of a total of 760 deaths from all causes, no fewer than 129 deaths from tuberculous disease occurred in the Lambeth Infirmary, 112 of those being due to pulmonary phthisis alone. Assuming a similar death-rate from tuberculosis to be applicable to the rest of the infirmaries, it would seem that the calculation made by us is not very wide of the truth. Such a mortality, as the Chairman of the Lambeth Board remarked, seems terrible. It is, however, to be remembered that the infirmaries deal with practically little else than advanced and hopeless cases of the disease. This, however, merely accentuates what we have said as to the necessity of securing as early as may be the separation of this vast aggregation of active infection from the immediate vicinity of patients not suffering from tuberculosis. We believe that in some infirmaries the importance of this has long been recognised, more particularly with regard to children. Nothing short of the absolute segregation of the infected will now satisfy modern requirements. As we have already pointed out, the ways and means to that end present no insuperable difficulty. It is satisfactory to note, therefore, in the columns of some of our daily contemporaries, that large and influential bodies like the Lambeth and St. Saviour's Boards of Guardians are already in active movement, and purpose giving the matter the serious attention it deserves. No doubt when the importance of providing fit and proper accommodation for their tuberculous inmates is fully realised by the other Boards in the metropolis some joint action will be taken to adopt the open-air sanatorium system of treatment, which, according to present lights, appears to be the desideratum. The St. Saviour's Board has indeed taken the initiative in this respect, and we understand that at its next meeting a proposal for concerted action by all the Boards of Guardians will be brought forward. We trust to be able very shortly to chronicle some real progress towards the establishment of sanatoria for our poorest brethren.

SCARLET FEVER AND SMALL-POX.

DR. MEREDITH YOUNG, M.O.H. Crewe, in a recent report, has referred to the question of return cases of scarlet fever, and states that, notwithstanding all precautions, a few cases have arisen in connection with the borough hospital. So imbued have the Hospital Committee been with the apparent hopelessness of guaranteeing that a child shall be absolutely free from infection on discharge, that a notice is sent out by the medical superintendent in respect of each scarlet fever patient, giving a warning on the subject. The remark made by Dr. Johnson, of Stoke-on-Trent, that during 1897 he continued to transmit to the Local Government Board and to his County Council weekly returns of notified cases of disease, leads us again to express the wish that such returns were compulsory, and were published for all districts in the country, just as mortality returns are now available. Such returns as are now included in the annual volumes of the medical officers of the Local Government Board will become more and more valuable as time goes on. Dr. Hill, of Birmingham, has something to say in favour of vaccination, and points to the data of the last epidemic of small-pox in that city, when of children under 10 years of age attacked by the disease, not one of those vaccinated died, whilst 35 in each 100 of unvaccinated cases proved fatal. Of patients of all ages, less than 5 died of each 100 vaccinated, and over 31 of each unvaccinated persons. Dr. Hill looks forward with grave apprehensions to the consequences of having in our country a multitude of unprotected people to face the small-pox epidemics of the twentieth century.

A NEW CURE FOR BALDNESS.

BALDNESS, if we are to believe that revolutionary investigator, M. Sabouraud, must now be looked upon as a microbic disease, and it will probably not be long before an antitoxin is discovered warranted to prevent the depredations of that subtle thief of youth who steals from the head of man his hyacinthine locks, before he has had time to produce a compensatory growth of what Parolles calls "valour's excrement" on his face. In the meantime we may, perhaps, get a hint where to look for the specific from the heathen but ingenious "Chinee" who finds sustenance for his pigtail in *ragoûts* of rats. A Chinese gentleman, whose name we are regretfully compelled to keep secret—because we do not know it, thus sings the praise of rat flesh as a hair restorer:—"What the carrot is to a horse's coat a rat is to the human hair. Neither fact can be explained; but every horseman knows that a regimen of carrots will make his stud as smooth and as lustrous as velvet; and the Chinese, especially women, know that rats used as food stop the falling out of hair and make the locks soft, silky, and beautiful." It is almost needless to add that he goes on to say that he has seen the treatment tried many times without a single failure. Bald people will do and suffer many things to make their estate more gracious, and they are not likely to shrink from the remedy which the Chinese ladies find so efficacious. M. Sabouraud may, perhaps, be induced to turn his attention to the subject. Is the rat liable to baldness? And if not, is its immunity natural or acquired? In either case it might be possible to obtain from it a prophylactic and curative serum, the use of which would make the eating of the rodent unnecessary. Any researches in this direction will be watched with the keenest interest by a considerable proportion of the human race. Hope springs eternal in the human breast—especially when the head above it is bald. To see a man whose hair is coming out buy an alleged infallible cure from one whose own head shows an ultra-Shakspearean bareness of surface is to witness a manifestation of faith in what theologians call the "heroic degree." We have a more plausible, if not a better, guarantee than this in the rat, which, being hairy itself, might at least conceivably be the cause of hairiness in those courageous enough to make it flesh of their flesh, either *au naturel* or in organic extract.

THE REVISION OF THE UNITED STATES *PHARMACOPŒIA*.

The Committee of the Medical Society of the State of New York on the United States *Pharmacopœia* has issued a circular asking aid in its efforts to stimulate a greater interest in the approaching revision of that book, and formulated six propositions upon which they request comments. The following are the propositions:—1. That all drugs and preparations not now prescribed to any extent by physicians be dismissed. 2. That all chemical drugs necessary to other preparations but which are not directly prescribed be placed in a list apart from the body of the work. 3. That doses be included in the next revision. 4. That doses be placed in the index rather than in the text of the book in order to secure reference, and to avoid making them official. 5. That a section be devoted to giving reliable information concerning new remedies without in any sense making them official. 6. That an annual supplement of a few pages for the purpose of continuing similar disinterested information concerning new drugs be issued.

HÆMOGLOBINURIC FEVER IN BRITISH CENTRAL AFRICA.

The circular (No. 2) recently issued by the Medical Department, British Central Africa, on blackwater fever contains the clinical record of a number of cases of blackwater fever, and some useful general information about that worst and perhaps least understood of African diseases. According to Dr. Cross, it would appear that, as elsewhere in Africa, the disease is relatively rare in the first year of residence; that the maximum of liability is attained about the end of the second year; that when this period is passed without an attack liability gradually diminishes; that once attacked the patient is nearly sure to have recurrences, the liability to which persists even after he has left the country; and that the natives are very rarely, if ever, affected. Dr. Cross estimates that, although very few Europeans escape ordinary malarial attacks, only about 10 per cent. of the European residents in British Central Africa get blackwater fever. He considers that the disease is more common in the high lands than in the low districts of the Protectorate; and that, although manifestly associated etiologically with malaria, it is not amenable to antimalarial treatment with quinine. Natives, he says, suffer to a limited extent from malarial fevers of a tertian type. Dr. Cross has observed instances in which the liability to blackwater fever appeared to run in families. He recognises four leading clinical types: a paroxysmal form, in which daily recurrence of hæmoglobinuria takes place; a regular form, in which the urine contains hæmoglobin persistently for several days, generally three; a typhoid type, in which typhoid symptoms set in and persist even after the urine has cleared; and a suppression form, usually terminating in coma and death on the third day. Neither Dr. Cross nor Dr. Gray—who gives in detail one very interesting case of the disease—throws any light on the nature of the parasite which, it is to be presumed, is the cause of this terrible disease; but the valuable information which they and their colleagues are collecting must pave the way for much fruitful work in this direction by the Commission now on its way to Central Africa. The treatment Dr. Gray recommends for blackwater fever is warmth, rest, and diluents; for the vomiting, small doses of ipecacuanha, arsenic, cocaine, morphine, hot water, calomel, and jalap, followed by magnesium sulphate; and, when the vomiting is controlled, pig's bile, and 10 drops of turpentine every three hours. During convalescence the patient should keep his bed for at least three weeks, and take a mixture of quinine, arsenic, and iron. Dr. Cross considers that if a man gets blackwater fever before he has been two years in the country he should be invalided home. This circular and its predecessor cannot fail to be of service to medical men new to the country, as well as to medical science. We trust they will be continued.

WEATHER CYCLES.

The principal weather cycles now struggling for recognition, by means of which it is hoped that it may eventually become possible to forecast the weather, are two, that of eleven and that of thirty-five years. Of the latter Brückner is the exponent, and he opines that at intervals of about thirty-five years a succession of cold wet periods occur, alternating with warm and dry ones. Mr. A. B. MacDowall has published recently a chart of London weather since 1786 from the standpoint of barometric pressure. He finds that the point of lowest pressure in the whole 112 years was 1842, the highest 1891. Other years of minima were 1813 and 1876; between 1813 and 1842 were twenty-nine years; between 1842 and 1876, thirty-four years. The barometric curve at its lowest point was generally about the middle of the cold period, whilst the middle of the waves was about the middle of the warm periods. Mr. MacDowall considers that these facts may be employed for weather forecasts, and remarks that an interval of thirty-five years from the last minimum, 1876, brings us to 1911, about which time (or perhaps a little earlier) we may look for another minimum, the middle of another cold and wet period. At present we are still, apparently, in the warm and dry period that commenced about 1886, and are probably near the end of it, as a period of (say) fifteen years from 1885 brings us to the last year of this century. The end of a long time of preponderance of wet years was 1882; of the subsequent fifteen years, 1883-97, twelve have been dry and only three wet. The curve for Paris curiously lags in the three minima behind those (1813, 1842, 1876) of the London curve, by about three years at each minimum. The influence of Brückner's cycle on health is possibly considerable, since the mortality from typhus at Bâsle has been found to vary with the cycle, being worst in the dry periods; and Dr. Newsholme has lately shown that a succession of dry years in England corresponds with the period of highest mortality from epidemic diphtheria. The recent unusually mild winter temperature experienced in England, accompanied, as is usual, by a low death-rate, has so far corresponded with a mild winter in other parts of Europe. In

St. Petersburg, for example, recent winters have all been mild, but there has been no such warm winter as this for very many years. Unfortunately, that mildness has been accompanied by widespread illness. That badly-drained capital, with its cesspools and canals, which often are open sewers, apparently requires a winter of some months with plenty of frost and snow to render its atmosphere pure and the city healthy. The recent mild weather has broken up the sledge roads, brought rain, south-westerly gales, melting snow and rotten ice on canals and river, with the result that the frozen provisions which form the staple of food have been spoilt. The bad state of the country roads for transporting fresh supplies is another reason for scarcity and dearness, whilst firewood is reported to be nearly three times its ordinary price. The winters formerly experienced in the Russian capital with their continuous hard frost, varied rarely by an occasional thaw from November to March or April, were inimical to sickness amongst the population. If Brückner's cycle reigns on the Neva the "whirligig of time" may, however, be expected shortly to bring round a period of colder winters and of diminished insalubrity.

INFLUENCE OF MILK SUPPLY ON THE SPREAD OF TUBERCULOSIS.

THROUGH Professor Kanthack's untimely death the world of science has lost one of its most diligent workers. That he did not allow his fatal illness to interfere with his investigations is shown by a joint report of himself and Dr. Sladen, on some work undertaken by them upon this subject, the importance and urgency of which were recognised by Her Majesty and the late Lord Vernon, as well as several other owners of herds in this country. Taking the milk, as supplied by 16 dairies to the Colleges of Cambridge, it was centrifugalised, and an amount, proportionate to the size of the guinea-pig, inoculated into that animal. The creamy layer and deposit of each supply was injected into different guinea-pigs, and this was repeated on two successive days. In this way each supply was passed through 6 animals. At the same time, cover-glass preparations were made from the sediments, and examined microscopically. In these cocci, diplococci and tubercle bacilli were found, but only a few of each. Those animals that, after the lapse of several weeks, showed marked enlargement of the inguinal glands were killed, and the internal organs examined both macroscopically and microscopically. In all, 90 guinea-pigs were inoculated, and 23 were found to have tuberculosis, a percentage of 52.55. Of these 23, 13 had been inoculated with the creamy layer, and 10 with the sediment. Of the 16 dairies examined, the milk of 9 caused tuberculosis; in other words, the milk supply of more than half was tainted and capable of spreading tuberculosis. This is a most serious indictment, and the danger to the townspeople is probably greater than that of the undergraduates, as the former class includes hand-fed infants and young children, as well as delicate people and those suffering from acute diseases. It also demonstrates the fact that cream is just as likely to be infected as the sediment. It is worthy of note that four of the animals died within five days, and of three it is noted that there was tense swelling present. Two of these animals were injected with milk from the same dairy, and it would have been of interest to know whether the B. enteritidis sporogenes, an organism that flourishes exceedingly in milk was the cause of death. The superiority of this method of investigating milk for tuberculosis over that of simply examining the sediment with the microscope is evident, as in only three instances were tubercle bacilli found previous to the inoculation. It fails for practical purposes, as the average length of life in those animals that died of tuberculosis was nine weeks, while of those that were killed and found to be tuberculous it was thirteen weeks. It has the merit that there can be no prejudice against it upon the part of the farmers, such as undoubtedly exists against injection of tuberculin.

SEWAGE DISPOSAL AT MANCHESTER.

AFTER considerable pressure from the Mersey and Irwell Joint Committee—not to mention a daily penalty of £50 hanging over them in consequence of a summons issued at the instance of that Committee—the Manchester Corporation have at length applied to the Local Government Board for power to borrow £160,000 for the better treatment of their sewage. General Crozier and Dr. Theodore Thomson were deputed by the Board to hold an inquiry. After hearing the counsel for the Corporation (Mr. Balfour Browne) and the evidence of the promoters, the inquiry was adjourned on the second day, at the request of the latter, for three months, to allow the Corporation to complete their plans. The proposals, so far as they are submitted, are in the direction of bacterial beds for what the witnesses called the "contact system" of sewage treatment. Mr. Balfour Browne contrasted this system with that of the septic tank. The latter was, he said, unnecessary, as the sewers of the city allowed sufficient play to the anaërobic bacteria. Since September the Corporation have been carrying on experiments at Davyhulme. The tanks have latterly been turning out an effluent not beyond the limits fixed by the joint Committee. The present chemical treatment of Manchester's 23 million gallons of sewage does not come up to that standard. Dr. Percy Frankland's estimate that they will be able to treat half a million gallons an acre is probably a very sanguine one. The conversion of Manchester from the chemical to the bacteriological process is one more victory for the biologists. A curious commentary on Mr. Browne's comparison of the city sewers to a septic tank was afforded by the circumstance that on the second day of the inquiry the coroner held an inquest on the death of two workmen who were suffocated in the sewers.

DENTISTS' FEES.

A DENTIST in practice in the provinces has again put to us the question, often raised in our columns, as to whether it is proper for dentists to charge medical men, and members of their families dependent upon them, fees for services rendered in the treatment of disorders of the teeth. We have made some further inquiries as to the custom upon this point, and a dentist of large experience, whom we have consulted, states that there cannot be said to be any accepted rule with regard to fees between medical men and dentists. He adds that some leading consultants have been in the habit of freely accepting fees from dentists even when the latter have possessed full medical qualifications, whilst others with absolute firmness refuse to do so. Leaving personal friendship out of the question, the custom of waiving fees doubtless has its origin in a notion of reciprocity, and where this in any form exists the dentist doubtless does well to attend both the medical practitioner, and those for whom he would in reality be paying, without fee; but there is no obligation that he should do so, and it must be remembered that the consumption of time in dental operations is very heavy, so that to any dentist in busy practice to see one patient involves the refusal of another; hence the dentist cannot reasonably be expected to see without fee the families of medical men who are perfect strangers to him. A short time since a curious result ensued from this waiver of fees. A dentist, himself medically qualified, had been in the habit for years of attending a medical friend, and of accepting from him in return medical attendance upon himself and his family. There had been no thought of payment on either side, but both being of business habits noted in their day books all attendances. The medical practitioner died, whereupon his executors sent in a claim for attendances, and intimated that they should enforce it by legal measures if need be. The dentist thereupon sent to them a counterclaim, which happened to amount to a good deal more, and this the executors declined to pay unless compelled. The result was that both claims were dropped; but the legal point was brought out that any medical man can claim fees from any other, and that any waiving of fees is merely a piece of good fellowship, not binding upon executors or trustees in bankruptcy. It is therefore a matter upon which each must judge for himself. A great deal of gratuitous work is done by dentists for medical men and their families, and *vice versâ*; on the other hand, there are many medical men who will not accept it without making some return, and many dentists who, whether medically qualified or not, insist upon paying fees for medical attendance for themselves or their families.

SANITATION AT ALDERSHOT.

A COURSE of lectures on sanitation will be delivered this month and next in the training school, Royal Army Medical Corps, at which quartermasters of corps in the garrison will attend. We announced some time ago that these courses had been instituted at the station. While on the subject of sanitation we regret to find that Aldershot is suffering from another outbreak of diphtheria. Both military and civilian medical officers seem to have been kept busy with cases, not only in the camp, but also in the town of Aldershot. Schools have been closed, and all precautions taken, but this outbreak seems to be specially virulent. A searching inquiry is needed to discover the origin of these recurring outbreaks. Some further provision also seems desirable for isolating families other than placing them in quarters adjacent to those occupied by other families. Surgeon-General O'Dwyer is urging the District Council to take advantage of the powers conferred on them, and at the last meeting pressed strongly the need of the medical officer of health subjecting samples of milk supplied to the camp and the town to frequent analyses. There is reason to believe that throat affections—follicular tonsillitis, quinsy, faucial and pharyngeal lesions—are by no means uncommon amongst the soldiers. Some years ago they contributed quite 14 per cent. of the sickness through the camp. The Army Medical *Report* for 1896 (the last issued) shows that diphtheria caused in the United Kingdom 244 admissions, and that "nearly three-fourths of the cases, 177 in all, occurred at Aldershot," and were "stated to be mostly of a mild type." As to the probable cause of prevalence of the disease at that station "no definite conclusion was arrived at"; but it was noted that diphtheria was prevalent also among the civil population in the neighbourhood, and "milk was suspected as being the means of propagating and distributing the disease." The *Report* for 1895 shows again that out of a total of 445 admissions for diphtheria in the United Kingdom 412 of the cases occurred at Aldershot, and the causation is again indefinitely stated.

LEPROSY IN RUSSIA.

A STATEMENT has recently appeared in many newspapers to the effect that leprosy is reported to be spreading to a marked extent in the provinces of Livonia and Courland; that the military authorities have been obliged to reject many young men found to be suffering from the disease; and that, notwithstanding the preventive measures taken, the number of lepers in Russia is at present 5,000. That such should be the case is not surprising, if the following facts are considered. At the recent Berlin Leprosy Conference, Professor O. von Petersen, delegate of the Russian Government, estimated the number of lepers in the Russian Empire at something like 3,000. The registration of lepers was commenced in April, 1895. Between May, 1895, and May, 1896, 1,299 cases were notified by medical men, but 99 of these were excluded for various reasons. The vast extent of the Empire, the scattered population, and the small number of doctors, render the work of registration a slow one. The increase in the number of known lepers can to a great extent be accounted for by improvement in diagnosis, and also by the fact that the medical men all over the country are on the look-out for cases. The disease in its early stages is sometimes difficult to diagnose with certainty, and this must especially be the case in districts remote from medical teaching centres. But as the disease progresses it is recognised and notified. Yet, after making due allowance for all this, it was admitted that leprosy was spreading. The bulk of the evidence points to the disease being communicable from man to man, but in what way is not yet clear. Now in Russia it is the peasant and poorer classes that chiefly suffer, and it is among them that favourable conditions for the spread of disease exist, such as gross ignorance, filthy habits, overcrowded dwellings, and so forth—conditions which lead in Russia, as is well known, to the great frequency of extragenital syphilis. Again, many districts are affected in various parts of the country. In some the disease was spreading, such as Livonia, Courland, the Government of St. Petersburg, the Caucasus, and the territory of the Don Cossacks. Besides these, the following areas were also affected: Esthonia, Astrakhan, Central Asia, Jakutsk, Taurida, Kharkow, and Kherson. The difficulties in the way of successfully dealing with the matter are obvious; and although much can be achieved by means of leper hospitals and colonies, it must necessarily take time to raise a semi-civilised population to the higher level of life, and overcome the passive resistance of an ignorant peasantry. But, after all, even 5,000 lepers are but a drop in the ocean of 127 millions.

MORBUS EPONYMICUS.

IN a recent number of the *Revue Médicale de la Suisse Romande*, Dr. Blanchard describes a remarkable disease which has hitherto escaped the notice of nosologists. He calls it the "*syndrôme de baptême*," but, as this may to some minds seem to smack of profanity, we venture to suggest the designation of "morbus eponymicus." The affection is defined as an irresistible impulse to discover a disease or a fragment of a disease, and forthwith to call it by the discoverer's own name. The chief etiological factor is an inordinate appetite for metals in the shape of specimens of the current coinage of the country in which the patient lives; for it may be assumed that a sufferer from Pillman's disease, for instance, would prefer to submit his sad case to that acute clinician himself rather than to anyone else. The diagnosis presents certain difficulties, for not everyone whose name happens to be used to denote a disease is suffering from morbus eponymicus. A man may stand godfather to a disease without his knowledge or even against his will; the characteristic feature of the affection is that the discoverer himself gives his name to the disease which he reveals to mankind. The following may be taken as a typical case. The illustrious Purgemoff winds up a brilliant clinical lecture with some such peroration as the following: "You see, gentlemen, how easy it is by means of this sign, to which I was the first to call attention, to distinguish between infantile broncho-pneumonia and senile gangrene. So important a sign should for convenience have a name of its own, and therefore I propose to call it......" Here the lecturer is interrupted by the acclamations of his hearers who shout in chorus "Purgemoff's sign!" The eminent professor bows his acknowledgments, and the rite is accomplished. There appears to be one case on record in which the honour was courteously but firmly refused, and here we regret to say the modest man was not a doctor. When Europe was devastated by syphilis after the discovery of America, the scourge was called by Frenchmen the *mal de Naples*, and by Italians the "French disease." To prevent confusion, some ingenious person proposed that it should be called after Amerigo Vespucci. That virtuous explorer, however, protested vigorously, saying to those who wished thus to honour him, "If you are determined to give my name to something which I have not discovered, give it to the new world." The treatment proposed by Dr. Blanchard is a general boycott of eponymic designations.

TUBERCLE BACILLI IN BUTTER.

ALL observations up to the present time tend to show that the presence of tubercle bacilli in butter is a rare event. Rabinowitsch, whose previous work on this subject was published in the *Zeitsch. f. Hygiene*, 1897, Part I, has lately conducted some further experiments in Berlin with the object of testing previous investigations.[1] Fourteen butter manufactories were examined, and 15 experiments made. The produce of one factory was thus examined twice, and tubercle bacilli were found on both occasions in the butter. The remaining 13 showed no trace of true living tubercle bacilli, but in many instances pseudo-tuberculous bacilli were found. Inoculation experiments were made in all cases. During June and July the daily produce coming from the infected factory was examined. The result showed that 70 per cent. of the butter contained living tubercle bacilli. Professor Koch thought this result so remarkable that he requested Rabinowitsch to inspect another factory. In this second experiment no tubercle bacilli were found, but in some instances pseudo-tubercle bacilli had to be carefully differentiated from the true bacilli. Animals when injected with this pseudo-tuberculous material died of peritonitis. The "isolation" of this butter factory in Berlin, which is a source of danger to the community, is certainly a triumph for the scientific method of food examination. The question whether the pseudo-tuberculous material so often present in butter is harmful to human beings will be a matter for future investigation.

THE FLOODING OF BASEMENT ROOMS.

WE understand that owing to the recent heavy rains the flooding of basement rooms has been pretty general in the low-lying quarters of South London. Dr. Waldo, Medical Officer of Health for Southwark, has reported to the vestry that among sewage-flooded cellars visited by him lately have some in use as workrooms by bakers, cooks, printers, and others. This question of basement floodings in various parts of the metropolis (said Dr. Waldo in his report) has been for some years past under the notice of the London County Council, and in 1895 the Council resolved that the general enlargement of the main drainage system was not then necessary, but that "local flooding needed immediate attention." In 1893, in accordance with the request of the Chairman of the Main Drainage Committee of the London County Council, he furnished particulars of twenty cellars in which he had found evidence of sewage flooding. The London Building Act of 1894 provides against the occupancy in the future of dwelling houses on low-lying land. But the Act is not retrospective, and consequently the evil continues. The vestry resolved again to communicate with the London County Council, calling attention to the dangers caused by the condition of things described by their medical officer of health, and urgently requesting the Council to take immediate steps to remedy the evil.

A MILITARY DOCTOR.

LORD WOLSELEY has more than once said that medical officers are not soldiers. It may perhaps interest him to know that there is at least one doctor of medicine who is as much a soldier as himself. This is General J. Frédéric Canonge, now commanding the 15th French Army Corps at Marseilles. This gallant officer, who has just been promoted to the grade of Commander in the Legion of Honour, studied medicine in the early part of his career, and received his doctor's degree on the same day as he was promoted to the rank of lieutenant. His thesis was entitled: "Considerations sur l'Hygiène de l'Infanterie à l'Intérieur," a subject combining in itself both his special professional interests. The thesis, which was published in Paris in 1869, bore the appropriate motto: "Miles sum, militis nihil a me alienum puto." The general is said to be very proud of his medical degree, which cost him, in his own words, "so much labour and so many sacrifices to acquire."

THE GREEK RED CROSS SOCIETY.

THE Greek Red Cross Society, whose headquarters are at Athens, and which is under the patronage of Queen Olga, has recently published a report of its work in the Græco-Turkish war of 1897. It is there stated that the Society succoured more than 2,000 wounded and sick men during and after the war on the battlefield and in ambulances. It also afforded aid to more than 8,000 non-military patients, refugees from Phthiotis and Eubœa, and others at Lamia and elsewhere. It sent large supplies of medicines, antiseptics, surgical instruments, blankets, linen, and other things to the armies of Eastern and Western Greece and to the navy; and also supplied antiseptics and surgical instruments to the Ministry of Marine. The Society took part in the International Conference of the Red Cross Association held in Vienna.

THE BRITISH RED CROSS SOCIETY.

A REPORT has recently been issued by the Society on its operations in the Græco-Turkish war, 1897, and during the recent expedition in the Soudan. The fund collected by the *Daily Chronicle* for the Greek wounded shortly after the outbreak of the war was so considerable that the Council of the Red Cross Society decided that their immediate assistance was not needed in the shape of sending out *personnel*, especially in regard to Greece. They resolved to render assistance by money grants only for the purchase of clothing and comforts for the sick and wounded soldiers of both armies, it being the Society's established rule to aid both sides equally. On the Turkish side Sir P. Currie, Ambassador to Constantinople; Mr. Blunt, Consul-General at Salonica; and Mr. A. Vere distributed warm clothing and comforts to thousands of necessitous cases. On the Greek side Sir E. Egerton, British Minister at Athens, Lady Egerton, Mr. F. Noel, and Mr. Wickes assisted the Society. They established soup kitchens, and in other ways distributed food not only to sick and wounded soldiers, but also to a more numerous body of starving refugees, "victims of the war." Altogether an amount exceeding £5,600 was expended by the Society—£3,100 in Greece and £2,500 in Turkey. As regards the Soudan expedition, the report states that in June last the Council of the Society desired to render supplemental aid, and offered assistance to Lord Cromer and the Sirdar; but the offer was declined on the ground that very ample arrangements had been made for the sick and wounded, and that to accept the offer would involve a very heavy call upon the transport beyond that for which calculation had been made. A renewed offer made in the early part of August was accepted for work in the Nile Valley. Colonel J. S. Young was thereupon sent to Cairo, with full power to act on behalf of the Society. After conferring with the military and medical authorities it was decided to render aid in organising a service of transport of the sick and wounded by steamer on the Nile between Assouan and Cairo (thus obviating the great discomfort of a railway journey of about 600 miles). The care and treatment of the sick and wounded on board the steamer devolved on the Royal Army Medical Corps supplemented by lady nurses provided by the Society. A most suitable steamer—the *Mayflower*, a stern-wheeler, one of the largest and swiftest boats on the Nile—was chartered and converted into a hospital ship to carry 52 patients, and on an emergency 72. The vessel was equipped with the most modern medical and surgical appliances, and a liberal supply of comforts. It was placed under the medical charge of Major Cowen, R.A.M.C., and left Cairo on September 6th for Assouan, to bring down the first convoy of sick and wounded. Besides Major Cowen and Lieutenant Ross, eight non-commissioned officers and men of the R.A.M.C., three nursing sisters of the National Aid Society, and Colonel J. S. Young were on board. The *Mayflower* reached Assouan on September 13th, and left on September 15th with six officers and forty-four men, sick and wounded from the front, reaching Cairo on September 18th. Major Cowen reported that the great feature of the ship, in his opinion, was that wounds could be kept at physiological rest not to be obtained in a railway journey, and could be dressed daily on strictly antiseptic principles. The sick and wounded officers and men were surprised and delighted at the ship and its comforts. Colonel Sloggett, R.A.M.C., shot through the chest, was amongst their number, and said he had suffered much from the jolting of the train on the way to Assouan, and contrasted it with the 'absolute peace" of the ship. The *Mayflower* made a second journey, landing 47 wounded and 4 sick officers and men at Cairo on October 1st; and after a third similar voyage the last of the sick from the front were landed in Cairo on October 15th. The Society also sent £300 to Lord Kitchener for the benefit of the sick and wounded soldiers of the Egyptian army, and £200 for the purchase and despatch to Omdurman of articles needed for the proper care of the dervish wounded. The entire cost of these aids to the Soudan expedition was £2,726 5s. 10d. Colonel Young during October despatched clothing and comforts to the sick in hospital at Candia, Crete, which were highly appreciated. The report states that "These operations may be said to have established a new era for Red Cross work in connection with the British army, it being the first occasion upon which the British Red Cross Society and the Royal Army Medical Corps have worked together under one organisation, and it is very gratifying to the Council of the Society to learn that this system has been inaugurated and successfully carried through without any friction with the military or medical authorities." Letters of thanks from Lord Lansdowne, Lord Cromer, and Lieutenant-General Sir F. Grenfell are appended.

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[1] *Dcut. med. Woch.*, January 5th.

SANITARY INSPECTION OF HOUSES AND SCHOOLS.

DR. SNELL, of Coventry, makes some very pertinent remarks in his report for 1897 as to the need for systematic house-to-house visitation, and points out that the available sanitary staff is too small to render this possible. With over 12,000 houses on some forty miles of road, and all the other multitudinous aspects of an inspector's work, it is certain that one inspector and his assistant and a clerk cannot cope with the heavy demands of a place like Coventry. Dr. Vacher, of Cheshire, in his report for 1897, holds that the necessity exists for an additional inspector wherever such systematic work cannot be regularly undertaken. This is a phase of sanitary routine that has not had the attention it deserves. The duty of seeing not only that obvious nuisances are removed, but also that nuisances and dangers to health are looked for and repressed, should engage the consideration of all health bodies. Dr. Vacher would also have health officers give greater prominence to the matter of school accommodation in relation to the health of their districts. A curious commentary on this aspect of sanitary administration is afforded by the description given by the medical officer of health of the Northampton Rural District of the condition of the Harpole schools, which were closed for upwards of six months in consequence of the persistence of diphtheria. These were crowded, badly ventilated, and in other respects needed the attention of the education authorities. The reopening before this attention had been given—despite the half year's interval—was followed by recrudescence of the disease. Looking to the part that schools play in the propagation of disease, it is to be hoped that health officers will not be slow to report upon insanitary conditions in the buildings and on any circumstances that may seem likely to foster the spread of infection.

THE PROFESSORSHIP OF PATHOLOGY AT CAMBRIDGE.

THE Electors to this Chair will meet for the purpose of electing a successor to the late Professor Kanthack on February 11th. Candidates are to send their names and testimonials (if any) to the Vice-Chancellor by February 4th. Mr. Strangeways-Pigg, Demonstrator of Pathology, will supervise the classes during the present term.

LECTURES AT THE ROYAL COLLEGE OF PHYSICIANS.

THE arrangements for the spring courses of lectures at the Royal College of Physicians of London are as follows: The Milroy Lectures on The Earth in Relation to the Preservation and Destruction of Contagia will be delivered by Dr. G. Vivian Poore on February 23rd, 28th, March 2nd. The Goulstonian Lectures on The Pathology of the Thyroid Gland by Dr. George R. Murray, of Newcastle, on March 7th, 9th, 14th. The Lumleian Lectures will be delivered by Dr. Samuel Gee on March 16th, 21st, 23rd. The first lecture will be on The Causes and Forms of Bronchitis; the second on The Nature of Pulmonary Emphysema; and the third on The Nature of Asthma. The lectures will be delivered at the College at 5 P.M. on the days mentioned.

JENNER INSTITUTE OF PREVENTIVE MEDICINE.

STEPS are being taken to form a reference library in connection with the Jenner Institute of Preventive Medicine, and two rooms have now been fitted up for this purpose. The Institute is desirous of obtaining as complete a collection as possible of literature bearing on the pathology of disease in man and animals, as well as upon bacteriology and preventive medicine. It is also hoped that individual workers may be disposed to send reprints of any investigations or reports bearing upon the above subjects. A good reference library dealing with these special subjects at the Institute will needless to say be of the greatest value to students and workers. The Director asks us to state that he will be pleased to receive and to acknowledge any contributions that may be sent to the Jenner Institute, Grosvenor Road, London, S.W.

THE LIVERPOOL ROYAL INFIRMARY AND THE USE OF TUBERCULIN.

THE action of H.R.H. the Prince of Wales with regard to the prevention of tuberculosis has prompted the Committee of the Liverpool Royal Infirmary to take steps to ensure that the milk consumed by the patients in the institution shall be free from germs of the disease derived from infected cows. They have made an agreement with the contractor who supplies the milk that all the cows from which it is obtained shall undergo the tuberculin test.

THE President of the Royal College of Surgeons and Lady Mac Cormac will give a *conversazione* at the College on Monday evening, February 13th.

DR. C. O. HAWTHORNE, formerly Senior Assistant to Sir William Gairdner in the University of Glasgow and Lecturer on Materia Medica and Therapeutics in Queen Margaret College, has been appointed Medical Superintendent of the Medical Graduates' College and Polyclinic, Chenies Street, W.C.

THE PREVENTION OF TUBERCULOSIS.

LETTER FROM THE PRINCE OF WALES.

THE following letter, dated January 10th, has been sent by Sir Francis Knollys on behalf of the Prince of Wales in reply to a communication from the Brixton Branch of the Social Democratic Federation:

"I am desired by the Prince of Wales to thank you for your communication and to assure you in reply that any measures calculated to diminish the terrible and preventable waste of life caused by consumption and other tuberculous diseases will always receive his warm approval and hearty support."

THE PRINCE AND PUBLIC ABATTOIRS.

A report has appeared in the press that at a meeting of the Committee and Council of the Smithfield Club held recently, a resolution was adopted, amid loud cheering, condemning the establishment of public abattoirs as "unnecessary and inexpedient," and that the Prince of Wales, in putting the resolution to the general meeting afterwards, said "he had no doubt the resolution would be received in the same favourable way by that general meeting." The attention of His Royal Highness having been drawn to the report, he has communicated with the editor of the municipal journal, the *Councillor and Guardian*, to the effect that he was not present at the meeting of the Council of the Smithfield Club when the resolution in question was carried, nor did he express views of any description at the general meeting when the resolution was brought forward for confirmation. As the Chairman he had necessarily to put the resolution to the meeting, but he did so without a single word of comment.

WEST RIDING.

At a recent meeting of the West Riding Sanitary Committee Alderman Sugden submitted the Committee's report, which included an extract from the report of the County Medical Officer, Dr. Kaye. Attention was called to the crusade which has been entered upon with the object of reducing the sickness and mortality caused by tuberculosis. In the West Riding registration county in 1876 the number of deaths from phthisis was 394 per million living; in 1886, 498; and in 1896, 199. The annual death-roll from the disease in the West Riding was approximately 5 000. The position of the West Riding was less favourable than that of the country generally, but it was consoling to notice the marked difference in the figures between 1876 and 1896. It was now known that improvement had been, and could be, effected by: (1) General sanitation, especially in dwellings; (2) supervision of trade tending to the development of the disease; (3) isolation of the sick; (4) destruction of infectious matter; and (5) control of the food supply—meat and milk. The Committee recommended the delivery of three or four lectures on tuberculosis and its prevention in selected agricultural centres of the Riding. The report was received and the recommendations adopted.

SHEFFIELD.

At a meeting of the Sheffield City Council on January 11th Alderman Franklin asked if the Health Committee had taken any steps to consider the means of isolating patients suffering from lung complaints, as, according to latest announcements, these were communicable diseases. He had ascertained that in some other towns the medical officers had drawn up series of regu ations, which were printed on cards and circulated from house to house, thus bringing it home to the inhabitants that cases should be isolated. As in this city 28 per cent. of the deaths were from these diseases, he thought they ought not to be behind other cities in educating the inhabitants on the subject. Dr. Manton said Mr. Arthur Jackson drew attention to this subject some years ago. It was clearly demonstrated that practical isolation could be secured without infringing any of the rights of the inhabitants.

GLASGOW.

A meeting of the Lower Ward Committee of the Lanarkshire County Council was held on January 9th at Glasgow, Mr. J. T. Costigane, Chairman, presiding. In presenting the minutes of the Lightburn Hospital Committee, the Chairman remarked that hospital work was now receiving the attention of the highest in the land. Only the other day the Prince of Wales presided at a meeting in favour of establishing sanatoria for the treatment and cure of consumption. This terrible disease was, it was said, responsible for one-seventh of the entire mortality of the country. It was admitted to be a preventable disease, and he believed the day was not far distant when Parliament would place it in the list of those contagious diseases from which county councils and municipal authorities at present had to defend the populations under their charge. The question of providing hospitals or sanatoria for the various classes of tuberculous disease might thus become a very practical one before very long. As it was at present even the infirmaries shut out the poor consumptives, who were forced to live in our midst, and thus the contagion was spread the more. If even one-half of the good which had been accomplished by hospitals in fighting fevers could be accomplished by similar treatment of consumption, the matter was certainly worthy of consideration.

BLACKBURN.

At the November meeting of the Blackburn and District Medical Society, at which thirty-one members were present, the following resolution was passed unanimously:

> That in the opinion of this meeting phthisis should be added to the list of notifiable diseases.

The Secretary was instructed to forward the resolution to the Health Committee of the Blackburn Corporation.

Dr. James Wheatley, Honorary Secretary, Blackburn and District Medical Society, Medical Officer of Health for Blackburn, writes:

Dr. Niven, Medical Officer of Health for Manchester has for many years strongly advocated the compulsory notification of tuberculosis, but up to the present time it has not met with that acceptance, either from the medical profession or the Legislature that it undoubtedly deserves. There seems to be some danger that in the movement that is now being organised sanatoria will occupy too prominent a position. They are no doubt excellent and much needed, but their influence in preventing the spread of consumption will probably not be great. The majority of adult consumptives not only cannot afford to pay for treatment in sanatoria, but they have to continue at their work to support themselves and others. Preventive measures should aim at minimising the danger to the community of these persons whilst not in any way restricting their liberty. The public is becoming so much alive to the spread of the disease through milk, that this danger is likely to be satisfactorily dealt with in the next few years. There remains, however, the still greater danger of spread from person to person which cannot properly be grappled with except by notification. The association just formed has for one of its objects the propagation of knowledge with regard to tuberculosis. Those who have had experience of the distribution of knowledge of this kind know how difficult it is to inculcate it into the minds of those it will most benefit. If notification were adopted, the necessary information could be given direct to those most in need of it. It will be found, too, that it is not sufficient to spread knowledge, but it is necessary amongst the more ignorant classes to insist that the principles are acted upon. Of the arguments that have been used against notification, perhaps the strongest is that people have an intense dread of its becoming known that consumption is in the family. This however is founded on two false ideas with regard to the disease, its heredity and incurability, and it will die when these have been dissipated. The advantages of notification are numerous, but they are also well known. There is one however which is not so obvious, but which is, I think, quite certain to occur, and that is that it will lead to an earlier diagnosis of the disease. The importance of this is at once seen when it is remembered how many cases can be cured if taken early. The difficulty in making phthisis notifiable at present is due to the fact that it can only be done by adding it to the list of diseases mentioned in the Infectious Diseases (Notification) Act. This would give to the local authority various powers of enforcing isolation, etc., which are altogether undesirable. It seems therefore as if this matter would have to be dealt with by entirely fresh legislation. The importance of the resolution of the Blackburn Society is due to the fact that the members as general practitioners are desirous, in the interest of the public, of undertaking the duty of notification.

THE CRUSADE AND ITS PLAN OF CAMPAIGN.

In a recent number of the *Medical Chronicle*, Dr. Arthur Ransome traces in an interesting manner the events which led to the organisation of the national struggle against tuberculosis which has been undertaken under the patronage of the Prince of Wales, and with the approval and active support of the official heads of the medical profession in the three kingdoms.

The first intimation of the preventability of phthisis probably came (says Dr. Ransome from the results published by the Commission on the Sanitary State of the Army in the year 1858; results which were ably commented on by the late Dr. William Farr, and which both pointed out some of the common causes of the disease and also indicated the means of prevention by thorough drainage of the soil and free ventilation. The evidence collected by Dr. Edmund Parkes, and published in his great work on hygiene, added force to the conclusions of this Commission, and spurred on to action those who were responsible for the public health. The discovéries of Bowditch in America, and of Buchanan in England, also showed the possibility of controlling the spread of phthisis by means of subsoil drainage. The probability of infection by tuberculous products, when inhaled, was clearly shown by Villemin, Schottelius, and others; and the conditions under which such infection can take place were shadowed forth by the report of the Collective Investigation Committee, by Dr. Ransome's researches on tuberculous infective areas (Epidemiological Society), and by those of Dr. Niven, and of Dr. Flick of Philadelphia. The strongest impetus to the full recognition of the preventability of tuberculosis was, however, given by Dr. Koch's discovery of the microbic nature of the disease.

Other observations, amongst which were some conducted by Dr. Ransome along with Professors Dreschfeld and Delépine (*Proceedings* of the Royal Society, vol. lvi), also indicated the virulence of tuberculous sputum, under certain conditions of soil, light, and air, and its complete disinfection by air in the presence of sunlight.

Dr. Ransome believed that Manchester was the first town in the kingdom both to suggest and partially to carry out measures for the prevention of phthisis. Seven years ago an informal meeting was held in his house of certain members of the staffs of the Manchester Royal Infirmary and of the Hospital for Consumption; Dr. Tatham, then Medical Officer of Health for Manchester, was also present. A resolution was carried that it was desirable that the houses of consumptive patients at these institutions should be periodically disinfected, and mainly owing to the courage and public spirit of Dr. Tatham, it was determined that any cases notified to him by members of these staffs, should have their houses thoroughly purified free of cost. This undertaking was carried out for some time, but was then discontinued in order that experiments as to the most efficient methods of disinfection might be made by Professor Delépine. These researches showed that the best disinfectant against the bacillus of tubercle is a 1 per cent. solution of chloride of lime. But the undertaking does not appear to have been resumed after this result was made known.

This effort was not the only one made in this direction. Papers covering the whole method of procedure were published on the subject, one by the Manchester and Salford Sanitary Association, entitled A Campaign against Phthisis, and others by Drs. Niven and Ransome before the Society of Medical Officers of Health (North-Western Branch); and it was unanimously determined by this body to carry out the views of the writers of these papers.

Shortly after this date papers were read at the International Medical Congress in London by Dr. Squire and Dr. Ransome dealing with the subject; and special stress was laid upon "the need for general sanitary measures" in order to produce "any large reduction in the mortality from tubercle." But unquestionably to Mr. Malcolm Morris belongs the honour of having stirred up the medical profession in London (by his "Tuberculosis Number" of the *Practitioner*), and, under Sir W. Broadbent's leadership, of having brought about the formation of a National League for the Prevention of Tuberculosis.

At the inaugural meeting Mr. Malcolm Morris pointed out that other nations had been before Great Britain in starting similar measures of prevention of tuberculosis, notably France, Belgium, and the United States. Quite recently, also, Norway has proposed to legislate on the subject (*Public Health*, vol. x, p. 430). In the number of the *Practitioner* already mentioned Dr. Hermann Biggs gave a full account of the means adopted in the city of New York for the prevention and restriction of pulmonary tuberculosis. The undertaking was commenced in a tentative manner as far back as the year 1893; and in 1897 legal force was given to these measures. They have already proved of great service, and would have to be carefully studied by the leaders of the movement now about to be carried out in England.

After this review of the origin of the movement Dr. Ransome proceeded to indicate the direction in which effort will have to be made in order to cope effectively with the disease.

(1) It is important to ascertain the full extent of the evil that has to be dealt with; and to this end a complete census of all persons suffering from the malady should be made.

(a) Notification of all classes of tuberculous disease, as complete as possible should be obtained; but, as in New York, there should be no intervention between physician and patient in any tuberculous case in which the intelligent practitioner may be trusted to give the simple instructions necessary to prevent the transmission of the disease to others. All the arrangements in New York for recording both cases and deaths, and the action taken in order to prevent infection, will probably have to be closely followed in our own campaign against the disease.

(b) Similar returns as to the proportion of cattle affected by tuberculous disease should be obtained. All herds of cattle will have to be thoroughly inspected and tested by tuberculin in order that we may know the exact degree of danger from this possible source of infection.

2. Measures for the prevention of infection will have to be undertaken.

(a) Instructions as to the best means of destroying the sputum and other discharges from tuberculous patients will have to be widely circulated.

(b) All the cases of tuberculosis reported to the authorities by their medical attendants as being in need of such help will have to be visited in their homes by medical inspectors detailed for the purpose. They will both give verbal directions, and will decide upon the best course to be taken in each case.

(c) If the case is one which, in the judgment of the inspector, requires special hospital treatment, the fact must be reported to the authority, and the patient will have to be visited, as in New York, by a special inspector, who will determine by physical and bacteriological examination the tuberculous nature of the case. He will also have to decide whether the patient is in circumstances which prevent him from receiving proper care or medical attendance, or whether he is a source of danger to others. Under such circumstances he will endeavour to have him removed to some special hospital, and will take measures to have his house properly disinfected.

(d) The provision of suitable hospitals will have to be another very important aim of the League. At the present time, with the exception of a few hospitals for consumption in London, and still fewer in other parts of the kingdom, the workhouse hospitals are the only refuges to which these poor patients can be sent.

(e) The disinfection of infected houses, whether before or after the death of the occupier, should be, as it is in Manchester, carried out at the expense of the municipality. In New York the process is called "renovation," not disinfection. Dr. Biggs remarked: "This involves the application of simple and, in tenement houses, inexpensive measures—that is, scrubbing painted woodwork and floors with hot soda solution, and repainting, repapering, or re-kalsomining the walls......" "Where the consent of the owners can be obtained (and there is now but little difficulty in this) infected bedding, clothing, carpets, etc., are removed......to the disinfecting station, and disinfected by steam or destroyed, at the option of the owner, without expense to him."

(f) The danger of infection from tuberculous meat or milk must be averted by thorough supervision of all herds of cattle, by the control of the sale of tuberculous meat, by the gradual formation of herds of non-tuberculous cattle, by the stringent regulation of dairies and milkshops, and by the boiling or pasteurisation of all suspected milk.

But if the disease is to be effectually restrained much more than this, says Dr. Ransome, will have to be carried out. In addition to the other measures which have been enumerated, the National Association for the Prevention of Tuberculosis will have to promote all those measures of general sanitary reform which have already diminished the disease by nearly two-thirds in this country, and which may be expected to effect still further improvement in this direction. It is to be hoped also that they will suggest special measures for the cleansing and disinfection of all places of public assembly; for the ventilation and periodical cleansing of workshops; for the prevention of overcrowding in schools; and for their better ventilation and purification.

THE MIDWIVES BILL.

SICK AND OBSTETRIC NURSES BILL.

DR. ALEXANDER MCCOOK WEIR (Mortlake, S.W.) writes to to say that he considers that Dr. Watt's scheme for meeting the midwifery difficulty described in the BRITISH MEDICAL JOURNAL of January 14th, pp. 115 and 116, was anticipated in a Sick and Obstetric Nurses Bill which he drafted in 1897, and printed in the following year. A brief outline of the Bill was published in the JOURNAL March 5th, 1898, p. 662. The second clause of the Bill would empower "any duly constituted local authority, such as Boards of Guardians, county, district, and parish councils, or voluntary nursing associations acting independently of, or in conjunction with, any of the aforesaid authorities, who shall have power individually and collectively to enforce the provisions of the Bill in their respective districts" to adopt it. The third clause would forbid under penalty any person in the district of the local authority which had adopted the act "to assume the title of midwife, or to practise as such, or to act as a sick or obstetric nurse for gain or otherwise, without the supervision and control of a fully qualified and registered medical practitioner."

The fourth clause would impose on any of the authorities adopting the Bill the duty of employing "a sufficient number of sick and obstetric nurses to meet the requirements of the poor and working-class population of their respective districts, and no woman already in practice as a midwife, sick or monthly nurse, shall be eligible for employment by any authority herein named unless she can produce a certificate of competence from a duly-recognised teaching authority that she is proficient in the art of sick and obstetric nursing."

Clause 5 would require an authority adopting the Act to keep a register of nurses, and to provide for their payment, either from the rates or by voluntary contributions, or by beneficiaries under the Bill, or from all three sources, and would impose upon Boards of Guardians, in default of other authority, the obligation to adopt the Act and provide the necessary funds to carry out its provisions, or to make grants in aid to voluntary nursing associations. Clause 6 would require the authority or nursing association to keep a complete list of medical men practising midwifery in the district, and "to invite them to join their associations and their executive committees." Every woman would have the right to choose her own medical man. Clause 7 would make it an offence for any woman, whether acting as sick or obstetric nurse or otherwise, to advise or prescribe or to administer a noxious drug, or to use any surgical instrument beyond those necessary to her calling as a sick or obstetric nurse, or to sign any death certificate, or certificate of stillbirth, or certificate of illness. Clause 8 would empower Boards of Guardians through their relieving officers to grant orders on their medical officers, or on any other duly qualified and registered medical man within their jurisdiction; or, in the case of great poverty, an order on both doctor and nurse, or, in cases of persons temporarily embarrassed, orders on "loan" until such time as the parties can refund the same.

AN ALTERNATIVE SCHEME.

Dr. THOS. M. WATT (Lupus Street, S.W.) writes: I am greatly obliged to you for drawing your readers' attention to my pamphlet. One point in your notice of it seems to call for remark. You say that the earlier part, as being a criticism of the Midwives Registration Bill of 1898, is now in fact out of date. I have carefully compared the new Bill with the old, and of the dozen pages of my pamphlet devoted to the defects of the latter I find only two rendered pointless by changes in the present measure. The concessions in the new Bill are:

1. Registration is abandoned in despair, and mere enrolment on the strength of a renewable licence is accepted as the best attainable, if but a disappointing, substitute.
2. The right to be licensed as a *bonâ-fide* untrained midwife, in actual practice at the passing of the Bill, will be withheld from women of questionable character, if they cannot get upon the soft side of somebody.
3. Untrained women starting in the midwifery business after the passing of the Bill will be liable to prosecution—so that all the solemn warnings of the Midwives Bill Committee are cast to the winds and a British Parliament is to be asked to "sanction the formation of a monopoly" by "making it penal for unregistered, old-fashioned, and untrained midwives to practise," *malgré* Dr. Cullingworth as quoted here from the *Contemporary Review*.

[These alterations are all to the good; but, on the other hand, the two years' experience in practice exacted by the last Bill is no longer to be demanded of the *bonâ-fide* untrained woman in lieu of training; not even so much as a month's shall be required of any woman, who shall be sharp enough to set up in business before the Act passes, and thus to secure her "Parliamentary recognition" and licence—however scandalous her ignorance and incompetence—provided only she can be saddled with no other and additional proof of her being a person of recklessly bad character.]

The paragraphs in my essay bearing upon defects dealt with in these three amendments may now seem obsolete, but the remainder, at least, of my criticism in the first portion is as pertinent to the new Bill as to the old. I need not say, however, that it is to the constructive scheme suggested in the latter part, that I attach serious practical importance.

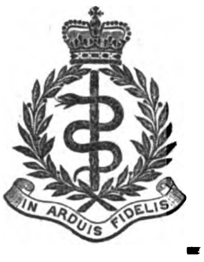
Perhaps you will allow me to add, in order to save disappointments, that the publishers have no copies of the pamphlet remaining in stock. Those that I hold I am sending out to electors willing to bring them to the notice of their members of Parliament, not necessarily as endorsing my views, but in the interest of free discussion. For instance, Dr. Clifford Allbutt has forwarded copies to members for Cambridge University, intimating to them that he agrees with me "in the main"—as much as I could hope, and more than I dared expect.

⁂ The word "fact" was a misprint for "part." The sentence as written ran "The earlier part of his pamphlet...... is, in part, now out of date."

THE number of students in the University of Berlin this winter is the highest recorded since its foundation. There are 6,151 matriculated students, of whom 1,311 belong to the Medical Faculty.

THE NEW BADGE OF THE ROYAL ARMY MEDICAL CORPS.

BY the courtesy of the Director-General of the Army Medical Service we are enabled to give an illustration of the new badge which, as we announced last week, the Queen has been graciously pleased to authorise the Royal Army Medical Corps to assume.



We think it will generally be admitted to be at once beautiful and appropriate. The serpent entwined about a staff has been the emblem of the art of healing from a very early period. In many of the old statues of Æsculapius, the god of Medicine was represented holding such a staff in his left hand. In the great temple of Epidaurus the statue was of gold and ivory, and the figure held a knotted stick in one hand, while a serpent was twisted about the other. The symbolism of the serpent has been explained as meaning that sick persons, in order to get well, must make unto themselves a new body, or at any rate get rid of their old skin as a snake casts its slough. But the symbol has also a meaning for the physician, the serpent being supposed to denote attention, and hence being considered suitable as a reminder to practitioners to be observant of their patients, and watchful of the varying phases of disease. In Egypt, where medicine had its origin, the serpent was sacred to Isis, the goddess of fecundity and of Nature generally; and it may therefore perhaps be taken as symbolical of the *vis medicatrix Naturæ*. As to the staff, it is interpreted as signifying that convalescents need support to prevent relapse. The knots on the stick held by Æsculapius are emblematic of the difficulties inherent in the study and practice of medicine.

The crown or wreath of laurel is the accepted symbol of victory and honour, and may therefore be taken as denoting that the physician conquers death and is entitled to honour for his prowess. Another interpretation is that the laurel has a pharmaceutical significance, which rather reminds one of the apothecary in the old comedy who was an officer in the militia, and who was congratulated on the special advantage presented by this combination of offices, as it would enable him to distil remedies from the laurels which he won in the field.

The crown in the badge of course expresses the fact that the medical staff is now a "Royal Corps." The motto strikes us as very happily chosen. For the soldier there can be no higher ideal than faithful service, and no greater reward than the recognition of his fidelity to duty. And it may be said with truth that no branch of the service has been more faithful to military and professional duty in the face of difficulties than the Royal Army Medical Corps.

BRITISH MEDICAL BENEVOLENT FUND.

THE annual general meeting of the British Medical Benevolent Fund was held on January 13th, at the residence of the Treasurer, Sir W. H. BROADBENT, who occupied the chair in the unavoidable absence of Sir James Paget, Bart., the President.

Dr. SAMUEL WEST, the Honorary Secretary for Finance, presented the report of the Committee and the financial statement for the past year. These showed that subscriptions amounting to £1,192 8s. 6d., and donations amounting to £492 7s. 11d. had been received and distributed in grants varying from £5 to £18, to 158 out of 184 applicants. Interest on invested capital had yielded £2,328 14s. 10d., from which annuities of £20 each had been paid to 108 recipients of the age of 60 and upwards. One new annuity had been created and 12 annuitants elected during the year.

The resignation, on account of continued ill-health, of Mr. Joseph White, the Honorary Secretary for Cases, was received with great regret, and he was unanimously elected a Vice-President. Mr. W. E. Sargant was appointed his successor.

Cordial votes of thanks were passed to all the officers of the Fund and to the Press both lay and medical. The meeting concluded by a special vote of thanks to Sir William Broadbent, who for many years has taken, as Treasurer, a great and active interest in the affairs of the charity.

Although the above figures show an increase upon the previous year's receipts, the Grant Department is still a source of anxiety, as most deserving cases have frequently to be passed over. The income of this branch is derived entirely from annual subscriptions and donations, and the Committee earnestly appeals to the profession and others to become annual subscribers. A donation of £5 or a yearly subscription of 10s. entitles the donor to the privilege of recommending cases. The books and accounts have been as usual exhaustively audited by a chartered accountant, Mr. E. F. Voelcker, who continues to act as honorary auditor of the Fund, and who draws special attention in his report to the extremely small working expenses, which are again, as they have been now for some years, under 5 per cent. of the receipts.

THE VACCINATION ACT, 1898.

MRS. GARRETT ANDERSON ON VACCINATION.

To the *Times* of January 10th Mrs. Garrett Anderson contributed a long and excellent letter on vaccination. For medical success in newspaper correspondence on this subject more is required than mere personal knowledge of the value of vaccination and a desire to defend it against sophistical disparagement. The letter writer must take the pains to make himself or herself acquainted with many facts and figures in support of vaccination, and also with the more common misstatements and misrepresentations made by antivaccinationists. In her contribution to the *Times* Mrs. Garrett Anderson discusses various matters of interest. It is sometimes denied that small-pox, in the entire absence of vaccination, would attain to the mortality-rates which characterised it in the last century. In reply, it is pointed out that "there are fewer isolated country places now than in the eighteenth century," and that "communication has been increased a hundredfold; all children go to school; almost all workmen and clerks travel twice daily in the crowded trains or trams," and that "there are more concerts, theatres, music-halls, races, football and cricket club matches than before Jenner's time, also many more church services;" so that, when small-pox struck Gloucester two years ago, the mortality was at the rate of no less than 10,800 per 1,000,000. Concerning isolation as a substitute for vaccination, Mrs. Garrett Anderson writes:

> The popular substitute for vaccination at the moment is "isolation." No one doubts but that in a fairly-protected community isolation is an immensely valuable aid, but it assumes that the people in immediate contact with the patients when isolated are themselves protected, otherwise there would be no isolation. No one proposes that a sufferer from small-pox shall be forcibly taken from his home and put into a desert place without people to tend him, to provide him with food, and all that can in any way alleviate his misery, which, alas! is not much; and, finally, in many cases to put him into his coffin. These kind souls must either be protected or not protected. At present the sick man is guarded by a cordon of people—doctors, nurses, servants, officials—who are all protected from his contagion by having been recently revaccinated. If vaccination be given up there will be no such cordon of protected people, and, in fact there would be no justification for attempting isolation. If six or eight people are to take small-pox from each patient, there is no object in taking a small-pox case away from home. His own people may as well have it as anyone else. Experience would in time teach neighbours to give him a wide berth. There is no justice or sense in saying, "A. will not submit to being vaccinated, but B. must be vaccinated in order to tend A. when A. gets small-pox." The fair thing will be for all the A.'s to tend each other, and for the B.'s to find more agreeable work, which will not be difficult. In a thoroughly protected community where revaccination in adult life is the rule, isolation ceases to be necessary. In Germany, for instance, in the last ten years 51 cases of fatal small-pox have occurred in as many separate centres without any epidemic having started from them. All the cases have occurred in frontier towns, or they have been imported from less well vaccinated communities, but they have done no harm beyond the death of the patient, because the people around him in every case have been exactly in the position of the protected nurses in a small-pox hospital. But apart from other considerations, the plan of isolating every case of small-pox in an epidemic is bound to fail if the type of disease is severe or if circumstances lead to an early diffusion of the infection. It need not be anyone's fault that the epidemic quickly gets out of hand in such a case as the following, reported by Dr. Sidney Coupland in the eighth appendix of the Final Report, p. 14.
>
> A man, probably vaccinated some years before and therefore having only a moderately severe attack, is taken ill on December 21st, is rather better on the 22nd, travels from Manchester to Glasgow (presumably in a crowded third-class carriage), feels better the next day, when the eruption began to appear, goes to the Saturday popular concert, probably to the most crowded place in the hall; he is not quite well enough to sit it out, goes home, is worse next day, and on the 26th is taken into the small-pox hospital. He had used tramcars and omnibuses freely all the time. Such a case as that might at once start an epidemic which would overpower the resources of any hospital. In an altogether unprotected community several hundred cases might have been infected from this one man. Another case of the same kind is also reported by Dr. Coupland. A factory girl, lodging with a woman who sold milk and groceries, fell ill about Christmas and was off work. She slept in a room behind the shop and she occasionally assisted in the shop. She was married on December 30th, and early in January was taken to the small-pox hospital as being still highly contagious. As the reporter says, it can never be known how much mischief was caused by the dispensation of small-pox with milk and groceries and at the wedding party.

As regards the cost of epidemics and the difficulties of hospital accommodation, Mrs. Garrett Anderson proceeds:

> The cost of dealing with epidemics or of attempting to deal with them by the method of isolation would also be enormous, in fact, prohibitive—in any but tolerably large towns. Is this cost to be imposed upon all ratepayers, vaccinated and unvaccinated, equally, or upon those only who elect to be unprotected by vaccination? Why should those who do not need such a costly organisation be expected to pay for it? The Gloucester epidemic cost a town of 40,000 inhabitants in hard cash £15,000, not counting the value of all the things burnt or destroyed or funeral expenses. It killed 434 people, and 1,545 more went through a painful illness, and had to be supported in idleness during the weeks of convalescence. The aim of the authorities was to carry out the plan of isolating every case as soon as it was recognised. The plan failed absolutely. How could it do otherwise when for six successive weeks there was an average all the time of 21 8 new cases to deal with on each day, in addition to the accumulation of old ones?
>
> One result of the vigorous effort made to isolate cases at Gloucester was that the hospitals became disorganised from overcrowding, and from the staffs being entirely inadequate to the work imposed upon them. If anyone tries to realise what it means to have for six weeks on end 21.8 fresh small-pox cases to deal with each day, and to have nearly as many houses to disinfect day by day, it will be easy to understand that the system must break down. Even with smaller numbers, however, it would have failed from the determination of the people not to have their sick friends taken to the hospital, as they rightly thought, to die there. Naturally the most malignant cases were those that the authorities tried first to isolate, and as they all died the hospital plan was discredited. The truth is that treatment with a view to save life, or even to greatly diminish suffering, in a really bad case of small-pox is futile. Patients of this type are not taken to the hospital for their own benefit, but in order to minimise the diffusion of contagion in the community: and once this is understood those who care for them resist their being removed from their homes. Why should compulsory isolation be easier to enforce than compulsory vaccination?

Space prevents our quoting more, but the manner in which the letter writer has equipped herself for the task is indicated in the concluding passage, in which she says:

> Any amount of evidence is to be found in the sixteen volumes of the Commission's report and the appendices. Unhappily only some of these volumes are indexed, so the labour of using them is much increased. This serious omission should be repaired, and they should form part of every public library.

The want of an index as here mentioned is nothing short of scandalous. Much of the most important evidence in support of vaccination is thereby practically lost to the public; and, indeed, the laxity of the Government in this matter seems to us little less than an insult alike to the Royal Commissioners and to the witnesses. Surely some medical members of Parliament should be able to compel a remedy. In the meantime the Jenner Society might do worse than reproduce in pamphlet form the letter from which we have so freely quoted.

A COUNSEL OF DESPAIR.

MR. JOHN GAEB M.R.C.S., J.P. (Bewdley) writes: This Act should be called "The Act to Prevent Vaccination," for such is its operative result. In my opinion, both as a medical man and a magistrate, the sooner it is repealed the better. The greatest mistake, and main cause of opposition to vaccination has been the early age at which it is required to be performed, and six months in the new Act is too young except for very strong and healthy children. There is a natural disposition in every Englishman to resist compulsion in personal matters. Vaccination was willingly accepted as a boon to be sought for before it was made compulsory, as it has been resisted by a rapidly-increasing number since it has been more rigidly enforced. If the Act were repealed, the result would be that the residuum would remain unprotected, but what matter? It would be in the power of everybody to protect himself, his children, and dependents against small-pox by voluntary vaccination. It would benefit the human race in a social evolutionary sense, by weeding out the unconformable, who, if they died of small-pox, would be counteracting, by the best means in their power, the natural effect of vaccination, which has been responsible for the great increase of population, desirable or not, in all civilised countries during the expiring century.

SCALE OF FEES.

The following notes are in continuation of those already published as to arrangements proposed or accepted:

Bolton Union.—(*a*) 1s., (*b*) 5s., (*c*) 2s. 6d. The guardians paying all postage. The arrangement to continue for fifteen months, at the end of which period to be subject to reconsideration.

Keighley Union.—(*a*) 1s, (*b*) 6s., (*c*) 2s. 6d., and mileage. Dr. Wilson to be allowed under (*b*) 10s. for vaccination at distant places specified.

Chesterfield Union.—It appears that the Chesterfield guardians at the end of last year sent an intimation to the public vaccinators that they, the guardians, decided to pay the minimum fees allowed by the Local Government Board. This, of course, was in direct conflict with the intention of the Order, which was that an agreement should be come to between the two contracting parties. Subsequently a committee was appointed by the guardians to confer with a deputation from the public vaccinators. This deputation met with the most extraordinary reception from at least one member of the guardians committee. No agreement was come to, and the matter will therefore come for decision before the Local Government Board. We forbear to characterise the conduct of the member of the Board of Guardians to whom we have referred, but we are glad to see that the *Derbyshire Times* expresses the opinion that the general body of the guardians will be heartily ashamed of the incident.

Scarborough Union.—After a prolonged discussion the following fees have been accepted (*a*) 2s. 6d., (*b*) 7s. 6d., (*c*) 5s.

Kingston-on-Thames.—A deputation of public vaccinators of the Kingston on-Thames Union, with Dr. Owen Coleman as their spokesman, attended by appointment a special meeting of the guardians on December 30th, 1898. An offer had been made, but the medical men did not think that the payment proposed to be made under Subsection (*a*) was sufficient. This was explained at some length by Dr. Coleman, and after numerous questions had been asked and answered, and other members had spoken, the deputation withdrew. After a discussion at some length by the Board, it was announced by the Chairman that, by a large majority, all that had been asked for had been granted—namely, 2s. 6d., 7s. 6d., and 2s. 6d. under the Subsections (*a*), (*b*), and (*c*) respectively, together with an extra 1s. per case to Dr. Goodman on account of distance. The deputation, through Dr. Coleman, thanked the guardians for the courtesy with which they had been received, and for the favourable consideration given to their application.

VACCINATION OFFICERS ASSOCIATION.

At a recent meeting of the Vaccination Officers Association a general discussion took place upon the conscience clause and the extension of the age-period from three to six months. The opinion was expressed by most of the officers that these provisions would be prejudicial to securing satisfactory returns in the future. But the belief was expressed generally that as the Government were responsible for the purity of the lymph, the bringing of vaccination to the homes of the people would in time be fully appreciated as soon as the alteration was duly appreciated by the public. Some amusing stories were told concerning the "conscientious objector," one officer relating a case in his district where he had received exemption certificates for a number of children, and afterwards had received certificates of their successful vaccination, a circumstance which had led him to believe that not a few parents were suffering merely from a temporary aberration of conscience.

THE CONSCIENTIOUS OBJECTOR.

DR. WM. WOODWARD (late Public Vaccinator for upwards of 30 years to the Worcester Districts, Worcester) writes: Since the appointment of the Royal Commission, although there is at present a lull in the storm, the cost to the county from small-pox has been enormous, to say nothing of the dreadful suffering and deaths (known only to those who witness it), and now vaccination costs more than double and is rendered inefficient. No wonder, therefore, that Boards of Guardians are flatly refusing to carry out the Act.

Will our non-conscientious legislators take any steps towards remedying the error they have committed? It appears to me the least they can do, and that without a day's delay, is to pass "an Act to amend the Vaccination Acts." No doubt when the conscience clause was passed it was thought that the magistrates who had no votes to lose would act as a buffer between the members of Parliament and the antivaccinators, and nice buffers they are proving themselves. The Act reads that "they are to satisfy themselves that a man has a 'conscientious objection,'" and how are they doing it? In one instance, a long row of applicants were told to hold up their hands, and all who did so were granted certificates. Now, if the Act had been worded in such a way that certificates were to be granted to "those who had a simple objection," or "to all applicants," the magistrates would not be guilty of dereliction of duty as they now are—with a few notable exceptions, such as Mr. Corser and Mr. Mead, they are incurring an awful responsibility by this neglect of duty, and should be removed from the Bench. The Vaccination Act is now literally left to them to carry out, and although they ought not to have been put into this position, they should either do their duty or resign; or, as one medical magistrate has done, retire from the Bench when applications are made. Instead of that they often do not even charge the highest fees and make all the difficulty they can, but on the contrary, encourage the ignorant and misguided in their wicked folly.

Vaccination is now made perfect by the new Act, and instead of giving it a trial, which in time would even convince a rabid antivaccinator, it is being rendered nugatory. A day of reckoning will surely come, as unless the evil is at once remedied ages yet unborn will live to curse us when, for want of a simple precaution, there will be a return to the days of the Black Death with its fearful cordon of isolation as the only means of escape. If the plain and guilty alone suffered it would be different, but there are the comely and innocent who have to be considered, when, even if life is saved, disfigurement, blindness, deafness, and other sequelæ (very common in the worst form of small-pox, of which this generation knows nothing) render that life worse than death.

QUALIFICATIONS NECESSARY FOR PUBLIC VACCINATOR.

R. B.—A public vaccinator must be a "duly registered medical practitioner," and have similar qualifications to those necessary for a district medical officer—that is, he must be "qualified by law to practise both medicine and surgery." He must, in addition, have a special certificate from one of the recognised teachers of vaccination.

IN THE MIST.—In the case of patients who are "not at home" it would be advisable to visit again. As to skin eruptions, it is the public vaccinator's duty to postpone if the child is not in a fit state to be vaccinated, or if the environment is such that the child cannot be safely vaccinated.

IGNORAMUS asks: Is the Local Government Board likely to sanction the appointment as vaccination officer of a man who has obtained a certificate of exemption for his children under the conscience clause, and who openly avows himself as opposed to vaccination?

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A QUARTERLY Council was held on January 12th, Sir WILLIAM MAC CORMAC, Bart., K.C.V.O., President, in the chair.

Physiological Catalogue.—The Council adopted the recommendation of the Museum Committee that steps be taken for the publication, with coloured illustrations, of the first volume of the Physiological Catalogue of the Museum at an approximate cost of £108.

Members' Gown.—The further consideration of this subject was postponed *sine die*.

Medical Curriculum.—The following report by the Committee of Management was adopted:

The Committee of Management have considered the communication from the Medical School of St. Bartholomew's Hospital, taking exception to the recent alteration in the Regulations relating to the commencement of dissection after the student has received his instruction in chemistry, physics, practical chemistry, and biology, which was referred to them by the two Royal Colleges for consideration and report, together with communications to the same effect which have been received from the Deans of Charing Cross Hospital and St. Thomas's Hospital Medical Schools and have adopted the following resolution—namely:

> That after receiving the written opinion of the several medical schools, the Committee of Management recommend to the Royal Colleges that in Clause 3 on page 4 of the Regulations the words between the brackets be omitted.

The clause will then be the same as before the alteration. The Committee also recommend that Mr. Thomas Cooke's course of operative surgery be recognised for the ensuing year.

Report of the Laboratories Committee.—The following report, which concluded with a list of those working at the laboratories, was adopted:

1. *The Work on Diphtheria for the Metropolitan Asylums Board.—Preparation of Antitoxin.*—Since the 7th of October, 1,825 doses of antitoxin, each containing 2,000 units, and 3,547 doses, each containing 4,000 units, for the treatment of diphtheria in the hospitals of the Metropolitan Asylums Board, have been supplied and all the demands fully met. During this period 17,838,000 units, or 278,718 units per diem, have been supplied, as against 11,229,000 units, or 175,453 units per diem for the corresponding period of last year, an increase of 6,609,000 units, or 103,265 units per diem. Since the 24th November, 30 doses of 4,000 units each have been supplied to medical officers of health according to instructions received from the Metropolitan Asylums Board.

2. *The Grant from the Goldsmiths' Company.*—Under this grant 492 doses of antitoxin, containing 1,106,000 units, have been supplied to the general and children's hospitals in London.

3. *St. Giles, Holborn.*—The Committee have agreed to undertake the bacteriological examination of material from suspected cases of infectious disease in the St. Giles District, Holborn, for a period of six months, and if the arrangement proves satisfactory, it is proposed, at the termination of this period when the amount of work and its cost is ascertained, to enter into an agreement with the Vestry of St. Giles District for the continuance of the work.

Disciplinary.—The Disciplinary Committee recommended that the College solicitor, Mr. Wilde, be instructed to obtain the opinion of Mr. John Paget upon the clauses prepared by the General Medical Council for the amendment of the Medical Acts with the object of acquiring additional disciplinary powers. This recommendation was adopted.

Annual Meeting of Fellows and Members.—The following answer to the first resolution carried at the annual meeting of Fellows and Members was adopted.

That the Council while appreciating the congratulations of the meeting respecting their action in the matter of the Army Medical Service, would point out that they do continually give their attention to remedying those abuses connected with civil medical practice which are brought to their notice and which fall within their jurisdiction.

The following answer was given to the third resolution passed on the same occasion:

The Council would repeat that, while not prepared to express a general opinion on the questions raised by the resolution, they are willing to consider any evidence which may be submitted to them respecting the conduct of any Fellow or Member of the College in connection with the practices therein referred to.

Centenary at St. Petersburg.—The President reported that he had nominated Mr. Edmund Owen and Mr. F. Richardson Cross to represent the College at the celebration of the centenary of the Imperial Military Military School of Medicine at St. Petersburg.

Hunterian Oration.—The President reported that His Royal Highness the Prince of Wales had expressed his intention of attending this oration on Tuesday, February 14th and of being present at the dinner.

Midwives Bill.—A letter from the Honorary Secretary, Mr. F. R. Humphreys, was referred to a Committee.

Students' Association of Queen's College, Cork.—A letter dated December 29th, 1898, from the Honorary Secretaries of the Medical Students' Association of Queen's College, Cork, asking for the consideration of the following resolution passed at a recent meeting of the Association was referred to a Committee:

> That we respectfully ask the Royal College of Surgeons, England, to recognise as an equivalent to their Second Professional Examination the Third Professional Examination of the Royal University of Ireland, so that students having passed the latter may be enabled to proceed to the Final Examination of that body.

MEDICAL SICKNESS AND ACCIDENT SOCIETY.

The usual monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Society was held at 429, Strand, London, W.C., on December 30th. There were present Dr. de Havilland Hall (in the chair), Dr. J. B. Ball, Dr. M. Greenwood, Dr. Walter Smith, Dr. Alfred S. Gubb, Dr. J. W. Hunt, Dr. W. Knowsley Sibley, and Dr. F. J. Allan.

The business of the Society during the closing months of 1898 has been remarkably good. During the winter and spring sickness claims are heavier than in the warmer weather; but thanks, perhaps, to the mildness of this season, the sickness experience of the Medical Sickness and Accident Society through the latter part of last year has been unusually light. Although the final accounts for the year 1898 will not be presented to the Committee until their next meeting, it is clear that the record of 1898 will be no exception to the rule, and that the Committee will once more be able to congratulate the members of the Society on a prosperous and expanding business.

Although the amount of sickness claims for the year 1898 will be appreciably less than that expected and provided for by the premiums, it will exceed the amount paid in any previous twelve months of the Society's working. Through the fifteen years during which the Medical Sickness and Accident Society has carried on its operations it has grown in numbers, and the average age of the members has grown also. The amount of benefit paid to its members has necessarily increased each year, but it is a gratifying proof of the soundness of the basis upon which the Society was founded that its reserves have increased in a still greater ratio. More than £20,000 has been paid away in sickness benefit, but the reserve fund of the Society now amounts to over £120,000.

Prospectuses and all particulars can be obtained from Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

THE PLAGUE.

The Special Commission.

The sittings of the Commission at Agra have just terminated, and the following abstract of the proceedings is based on the telegrams published by the *Times*:

Mr. Hankin, Clinical Examiner and Bacteriologist for the North-West Provinces and Oudh, stated that as a rule plague was easily diagnosed by the microscope, but in many instances a few isolated bacilli were found after a careful search. Mr. Hankin said that "there was no doubt that cases of plague occurred among human beings in which no microbes were visible at the time of death." This fact was proved by the members of the German and Austrian Plague Commissions.

Colonel Thomson, Sanitary Commissioner for the North-West Provinces, said that when plague was in Bombay arrangements were made in Agra for the medical inspection of railway travellers. In consequence there was remarkable immunity from epidemic diseases generally. The first case at Hardwar, was discovered in April, 1897, and the plague ceased in June. Colonel Thomson said that the statement that the maha-mari from the hills was the same thing as plague was a pure assumption, and that Hardwar was infected from the south, and not from the north. He considered evacuation of the infected dwellings the chief measure to be adopted in the arrest of plague.

Mr. Winter, Collector of Saharanpur District, stated that in the epidemics of plague in the villages around Hardwar, the measures taken were evacuation of infected premises, segregation of the inmates, burning of houses, and the disinfection of clothing and property. These measures in the Hardwar District had been completely successful.

Captain Chaytor-White, of Mallapur Camp, Sitapur District, holds the belief that inoculation of plague by abrasions of the skin was the exception rather than the rule, and he doubted whether such abrasion was sufficient to account for the large amount (75 per cent. of the total cases) showing femoral inguinal axillary bubos. Peripheral points of inoculation were not usually to be found in such cases.

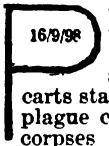
Dr. Elphick, Medical Officer on special plague duty at Hardwar, pointed out the extreme fatality of that form of the disease in which no external buboes were met with.

Colonel Crofts, Medical Officer to the Maharajah Sindhia, stated that segregation and evacuation as practised in the village of Khandraoni were eminently successful.

Colonel Adams, Medical Officer in Rajputana, holds that plague is spread by clothing, and in a less degree by rats. Detention and segregation are less objectionable to the natives than disinfection by chemicals or house visitation.

Captain Grant, of the Indian Medical Service, described his experiences whilst on duty in Sirohi. All treatment was refused by the natives, who feared poisoning. The disease was called the "rats' disease" by the natives, but during the epidemic no rats were seen. The early cases in the epidemic were all pneumonic and invariably proved fatal, but afterwards they were bubonic, and a fair number recovered.

A Plague-stricken City in India.

The Rev. Henry Haigh, in the ***Methodist Recorder*** for December, gives a graphic description of the city of Bangalore, in the Mysore State, as he saw it during the plague epidemic. The account reminds one of the records handed down to us of the great plague of London in the seventeenth century. Instead of the thronged bazaar and teeming streets an ominous stillness prevails. The shops are shut, the house doors are locked, the law courts and schools are empty; no vehicles are running, and the few foot passengers seen here and there but add to the desolate appearance of the city. "As we drove along we saw on house after house and on both sides of the streets a great  rudely painted, with figures inside the loop to show when plague had appeared there. Close beside the P there was usually a great D, telling that the attack had been fatal. There were white-covered carts standing here and there to carry new cases to the plague camp, and low, black box-carts to convey the corpses covered to their burial." All who could leave the city had done so; and in a part of the city usually containing 80,000 to 90,000 people, not more than from 10,000 to 12,000 remained. In even this attenuated population a daily death-rate of about 120 obtained, where the normal rate is but 5 or 6.

The native plague-stricken population do all they can to elude the vigilance of the authorities. In order to escape segregation the householders in many instances refrain from reporting plague, and not infrequently bury the corpse secretly. Not only is any spare piece of ground used as a burial place, but the body is at times thrown into a well or tank, or dropped over the wall of some European "compound." During one week three plague corpses were found, badly decomposed, in reservoirs commonly resorted to for drinking purposes.

"Inoculation is doing much where the people are willing to submit to it. There is one town—Dharwar, in the Southern

Mahratta country—where there have been singular facilities for obtaining accurate statistics, and here is the record:

	Population.	Attacks.	Deaths.
Inoculated	5,963 ...	106 ...	37
Uninoculated	4,200 ...	1,057 ...	827

That is very striking and is making its impression. But vast numbers of the people are unaffected by such statistics, and regard inoculation with suspicion and dread. Stories are current among them, told with every elaboration of detail, of how men are killed off by this same inoculation. Even the example of high officials does not suffice to reassure them."

REPORTED REAPPEARANCE OF PLAGUE IN CALCUTTA.

According to a Reuter's telegram dated January 12th, "several cases of illness suspected to be plague have lately occurred here (Calcutta) sporadically, but there is no likelihood of the port being declared infected." A later telegram, dated January 14th, states that one case of suspected plague has occurred in Calcutta.

MADRAS.

"The plague returns for last week show a decline throughout the Mysore district."—Reuter, January 12th.

CHINA.

The last issue of the *Chinese Imperial Maritime Customs Medical Reports* contains an interesting account of the outbreak of bubonic plague in Macao and Lappa, two ports in the neighbourhood of Canton, in 1897, and a report on the trials of the Yersin serum in the treatment of that disease by Dr. Gomes da Silva, of Lappa. The conclusions drawn from his personal experiences of the use of the serum are briefly as follows: The patients who, on the first appearance of the symptoms, are submitted to the injections of the serum with suitable tonic treatment are readily cured. If the injections are delayed till the appearance of the buboes, there is still some hope of cure if no serious internal complications have arisen; if, however, lesions of the circulatory, respiratory, or nervous systems have developed, there is little or nothing to be hoped for from the use of the serum. Accompanying the report are several charts showing the course of the temperature and the influence of the injections on it in the various types of the disease.

LITERARY NOTES.

SURGEON-GENERAL SIR CHARLES A. GORDON, K.C.B., the author of *Recollections of Thirty-Nine Years in the Army*, has (says *Literature*) been occupied for some months past in collecting a series of notes on early sanitation in India, from the arrival of the Portuguese in 1498 down to the formation of the Royal Commission in 1859. Sir Charles Gordon has now a tolerably complete series of notes on the use of animal matters and their derivatives as therapeutic agents in England during the seventeenth century, and in China at the present time.

To the journalistic death roll for the past year must be added the *Archives de Physiologie Normale et Pathologique* and the *Journal des Connaissances Médicales*. The latter, which was edited by Professor Cornil and Dr. Galippe, had been in existence for fifty-six years.

Messrs. Kegan Paul, Trench, Trübner, and Co., Limited, announce the publication of a highly original work on psychology entitled *Truth and Error, or the Science of Intellection*, by Mr. J. W. Powell, Director of the United States Bureau of American Ethnology, and some time Director of the United States Geological Survey. In the chapters on fallacies there is a careful discussion of the theory of ghosts, especially as treated in the publications of the Society for Pyschical Research.

The *Geographical Journal* for December contains the full text of the paper on the Acclimatisation of Europeans in Tropical Lands, read by Dr. Luigi Sambon before the Royal Geographical Society last April, together with a full report of the discussion thereon, in which Dr. Patrick Manson, Sir Harry Johnston, Mr. J. A. Baines, Dr. Felkin, Mr. Alfred Sharpe, Sir John Kirk, and Mr. J. W. Wells took part. As our own report both of the paper and the discussion was necessarily condensed, we would refer readers specially interested in the important subject with which they dealt, to the full report in the *Geographical Journal*. Dr. Sambon's views have excited much attention in the United States and in India, and whether one accepts them or not, it will hardly be denied that they deserve serious consideration.

Messrs. Kegan Paul and Co. will have ready at an early date a new revised edition of Mr. E. A. Reynold-Ball's *Mediterranean Winter Resorts*. While giving so much detailed information about places of historic and artistic interest as to render the tourist who possesses it independent of guidebooks, particular attention is paid to the wants of the classes of visitors for whom the book is mainly intended—namely, invalids and winter residents. The medical aspects of various winter stations are fully dealt with. Full and precise information as to steamship and railway routes is included, together with notes upon hotel accommodation, tariffs, etc.

The demon of influenza seems, if the newspaper reports are to be believed, to be at large again in New York. The American medical journals which have come to hand so far say nothing about the matter, so that we may at least cherish the hope that the reports are exaggerated. In the meantime, the republication of the following classical lines which appeared some years ago may have what, in the language of the lighter lyric stage, is called a "topical" interest:

Cæsar Ruthenus,
Grippâ perplenus,
Torquens in lecto clamat:
"Hunc miserum morbum
Totum per orbem
Spargam, qui circum me stat!"

Tumque bacillos
Valde tantillos
Ventis distribuit sic,
Ut hi ministri
Plane sinistri,
Spargerent illic et hic.

Itaque ventis,
Minime lentis,
Ex aquilone qui flant,
Et sordidis Sclavis
(Quippe per naves,
Quæ super Atlanticum erant)

Pervenit nobis
Iste microbus
Aut virus—quodcumque sit—
Quo lugent populi
Rure, metropoli,
Et medicus dives quo fit.

An sustinebimus?
Inulti flebimus?
Nimis molestum est, heu!
Sumamus casum!
Cæsaris nasum
Tundamus ego et tu!

After a successful career of over thirty years, *Science Gossip*, the favourite journal for amateurs devoted to natural, physical, and applied science, has just entered upon independent offices at 110, Strand. The magazine is still under the editorial control of Mr. John T. Carrington, who is assisted by Miss F. Winstone. There are also several specialists as departmental editors for particular sections, as Physics, Microscopy, Astronomy, Botany, Geology, Zoology, Meteorology, etc.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1899.

MEETINGS of the Council will be held on April 12th, July 12th, and October 11th, 1899. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 23rd, June 22nd, and September 21st, 1899.

ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

LANCASHIRE AND CHESHIRE BRANCH.—An intermediate meeting of this Branch will be held in Liverpool in February. Gentlemen wishing to read papers, show cases, or make any communication, should communicate at once with the Honorary Secretary, Dr. **JAMES BARR**, 72, Rodney Street, Liverpool.

BATH AND BBISTOL BRANCH.—A meeting of this Branch will be held at the Medical Library, University College, Bristol, on Wednesday, January 25th, at 7.30 P.M., L. A. Weatherly, M.D., President, in the chair. The evening will be devoted to a discussion on the Etiology and Prevention of Tuberculosis, to be opened by D. S. Davies M.D.—J. **MICHELL CLARKE** Clifton), and W. M. **BEAUMONT** (Bath), Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.—The next meeting of this District will be held at the Lambeth Infirmary on Thursday, January 26th, at 4 P.M. Cases of clinical interest from the wards of the Infirmary will be shown, and demonstrated on by Dr. Quarry and Dr. Turney.—**THEO. B. HYSLOP**, Bethlem Royal Hospital, S.E., District Secretary.

DUBLIN BRANCH.—The annual meeting of the Dublin Branch will be held in the Royal College of Physicians, Kildare Street, on Monday, February 6th, at 5 P.M. The officers and Council for the ensuing year will be elected by ballot, and any other necessary business transacted. Mr. F. T. Heuston, F.R.C.S., President-elect, will deliver an address on The Position of Poor-law Medical Officers in Ireland. The annual dinner will take place on the same evening in the College Hall at 7.30 P.M.—**JAMES CRAIG**, M.D., Honorary Secretary, 35, York Street, Dublin.

BORDER COUNTIES BRANCH.—The next meeting will be held in Penrith about the end of January. Members desiring to read papers, etc., will kindly communicate as soon as possible with the Honorary Secretary, W. F. **FARQUHARSON**, Garlands, Carlisle.

METROPOLITAN COUNTIES BRANCH: NORTH-LONDON DISTRICT.

A **MEETING** was held at the North-West London Hospital on January 11th, Dr. **MARTIN** in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Diseases and Deformity of Spine.—Mr. J. **JACKSON CLARKE** read a paper on diseases and deformity of the spine, and several patients were shown to illustrate various forms of lateral curvature and tuberculous disease of the spine. A modification of Chance's splint was the apparatus most frequently used in suitable cases, and its principle and mode of application were illustrated. A number of photographs and radiographs were exhibited. Mr. Jackson Clarke dwelt on the importance of gymnastic exercises in cases of early lateral curvature and of attention to the general health, as in rickets, tubercle, etc. The paper was subsequently discussed.

Cases.—A case of Spinal Curvature in a male adult due to Osteo-arthritis, under the care of Dr. **KNOWSLEY SIBLEY**, was shown.—Mr. F. **DURHAM** showed the specimen and skiagraph of a case of Calculus of the Kidney which had been successfully operated upon. He also showed a long Splinter of Wood which had been removed from the abdominal parietes of a case under his care.

Votes of Thanks.—Votes of thanks were passed to the lecturer for his interesting paper, to the staff of the hospital for the cases and specimens shown, and to the hospital authorities for their hospitality.

SYDNEY AND NEW SOUTH WALES BRANCH.

THE regular monthly meeting of this Branch was held in the Royal Society's Room, Sydney, on October 28th, 1898, Dr. W. **CHISHOLM** (President) in the chair. There were twenty-six members present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

New Member.—The **PRESIDENT** announced the election of Dr. R. J. Millard, of Goulburn, as a member of the Branch.

Communications.—Dr. J. B. **NASH** exhibited a case of Schede's Thorax Resection. The patient was examined by the members. A discussion ensued, in which Drs. **GLEDDEN**, **WILKINSON**, **HANKINS**, **THRING**, **MILLS**, and **SINCLAIR GILLIES** took part. Dr. **NASH** replied.—Dr. **SINCLAIR GILLIES** read notes on three cases of Epidemic Cerebro-spinal Meningitis. Drs. **THRING**, **HANKINS**, and **WILKINSON** took part in the discussion.—Drs. **FIASCHI** and **ISBISTER** read notes of a case of Amœbic Abscess of the Liver and Lung. Drs. **CHISHOLM** and **GOODE** made remarks on the case.

A DENTAL DEFENCE COMMITTEE.—At a recent meeting of Licentiates in Dental Surgery practising in North Wales and the Border Counties, a Defence Committee was formed with the object of collecting evidence in cases of illegal practice and covering, and of instituting proceedings under the Dentists Act, 1878, or before the General Medical Council, in cases in which it may be deemed advisable. The Chairman of the Committee is Mr. Roff King, L.D.S., Shrewsbury, and the Honorary Secretary Mr. Albert Morris, L.D.S., Oswestry.

SPECIAL CORRESPONDENCE.

PARIS.

The Prevention of Infection in Laboratories.—Poisoning by Tinned Food.—Outbreak of Typhoid Fever in Barracks.—Death of Dr. Dumontpallier.

M. **GRÉARD**, Vice-Rector of the Paris Academy, has sent to all the deans of medical and science faculties, and to the Director of the Pharmaceutical School, a circular formulating the precautions to be observed in laboratories in order to guarantee laboratory workers and the general public from any form of contamination. Heads of laboratories are to be held responsible for accidents occurring in their laboratories. They must therefore choose their assistants with great care and keep themselves exactly informed as to the researches undertaken in their laboratories. It will be their duty to forbid dangerous experiments or researches being undertaken by any but those who are thoroughly competent. Cultures of micro-organisms are not to be allowed to leave the laboratories unless the chief knows how they are to be used and sanctions such use. Minute directions are given concerning laboratory furniture. The tables are to be of enamelled lava or of slate; the floors are to be covered with cement or bitumen. The regulations as to cleansing and disinfection are most complete, as are those concerning the clothes of the workers. All blouses worn by them are to be disinfected in the stoves before they are sent to the laundress. All pupils and workers are warned that it is dangerous to let their cigarettes lie on the tables, as they may be contaminated and germs thus brought in contact with the buccal mucous membrane. It is desirable not to smoke in laboratories. In experiments on animals in connection with dangerous infectious diseases which soon run their course, the animals inoculated are to be placed in large glass jars, not in cages, until death occurs. After the death of the animals these jars are to be immediately sterilised. The dead animals are to be cremated in a special crematory kept in working order for the purpose. Small animals must be destroyed after death by being immersed in sulphuric acid or by boiling; the dead animals are to be removed to the crematory or immersion room in closed receptacles.

News comes from Sens that five soldiers poisoned by eating tinned meat are under treatment at the hospital, and are in a serious state. Other soldiers, also poisoned by the same provisions, not so seriously ill, are being treated in the army infirmary.

A serious epidemic of typhoid fever has broken out in the Auch Barracks in the Gers Department. An inquiry has been held and it has been ascertained that the sanitary condition of the barracks is very defective. The woodwork of the sleeping rooms is a receptacle for microbes; the air is vitiated, notably by the leathern articles kept in the rooms. The direct cause of the epidemic is nevertheless attributed to the water supply. The drinking water was filtered, but the river supply is contaminated by sewage and foul streams.

The death of Dr. Dumontpallier causes general regret. The cause of death was pernicious influenza. Notwithstanding his 75 years, a few weeks ago he made a long speech at the Paris Medical Academy. For several years he was "chef de service" and clinical professor in the Paris hospitals. The author of several works, he devoted the last 20 years of his life to the study of nervous diseases.

LEEDS.

The Leeds Medical Students' Debating Society.—Diphtheria in Leeds.—The Serum Treatment of Diphtheria.

THE members of the Leeds Medical Students' Debating Society were fortunate in inducing Dr. A. Macalister, the accomplished professor of anatomy in the University of Cambridge, to give them an address on Tuesday, January 10th. There was a large gathering of medical students and members of the teaching staff. After a few words of introduction by Dr. Jamieson, the President of the Society, Professor Macalister delivered a most interesting address on Some Limitations to Human Knowledge. After referring to the great advance in all that concerned the health and comfort of mankind during the nineteenth century, he pointed out that present attainments were small in comparison with those which the future would bring forth. There were, however, boundaries to knowledge, owing to the limitations of conditions. Such limitations were those of time, space, and surrounding circumstances. Minutiæ were increasing from year to year, and the intellect of man was not advancing in the same proportion. Lack of material constituted another limitation, and instances of this were given from anthropology and geology. Again, there were limitations to the sensations, as in the case of sight, hearing, touch, and smell. The acquirement of knowledge was also limited by what might be called the personal equation. Personal aptitude depended on such things as sickness and health, fatigue and even the seasons of the year. The differences in this personal aptitude often led to honest misrepresentation, and there was a danger of being led away by these divergences of perception. In conclusion, Professor Macalister pointed out that in spite of the limitations to which he had alluded there was still an enormous field for effort, and that the limits were very far off. A vote of thanks, proposed by Mr. Collinson, and seconded by Mr. Ewing, was carried with enthusiasm.

The subject of diphtheria has recently attracted much attention in Leeds, as the city is only just approaching the end of the most serious epidemic of the disease which has ever visited it. In ten weeks as many as 485 were notified. Notwithstanding the larger number of cases reported during the last quarter of 1898, the mortality was only 20.2 per cent., as against 34.3, 32.5, and 31.8 per cent. of the preceding quarters. Not many years ago diphtheria was looked upon as a rare disease in Leeds. On the suggestion of Dr. Spottiswoode Cameron, medical officer of health, the Sanitary Committee unanimously voted a grant of £20 for the purpose of providing antitoxic serum for the use of patients unable to pay for it.

In view of these facts much interest was shown in the recent meeting of the Leeds and West Riding Medico-Chirurgical Society, at which the subject of the serum treatment of diphtheria was down for discussion. There was quite a record attendance, over 100 members being present. All the speakers who took part in the discussion—and they were more than a dozen in number—testified from their personal experience to the high value which they placed upon the serum treatment of diphtheria.

CORRESPONDENCE.

TEACHING OF TROPICAL DISEASES.

Sir,—I enclose a letter received by the Council of King's College from the Secretary of State for the Colonies, and I should be obliged if you would insert it in your next issue.—I am, etc.,

Walter Smith,
Secretary.

King's College, London, Jan. 17th.

[Copy.]

Downing Street,
Jan. 7th, 1899.

Sir,—I am directed by Mr. Secretary Chamberlain to inform you with reference to the letter from this office of December 23rd, 1898, that he has carefully considered your letters of November 22nd and December 5th, 1898, and their enclosures, and that he has come to the conclusion that, in selecting candidates for the Colonial Medical Service, preference should be given (other things being equal) to those doctors who have received such bacteriological or similar special training as King's College provides, but that when candidates have been definitely selected they should be required to attend at the School of Tropical Medicine, which is being established at the Albert Docks Branch of the Seamen's Hospital, and to go through the complete course of instruction which is now being settled by a Special Committee of experts appointed for the purpose.

2. Mr. Chamberlain considers this arrangement to be the one best suited to the requirnments of the Colonial Medical Service, and he trusts that the medical authorities at King's College will co-operate as far as possible in giving effect to it.

3. Mr. Chamberlain desires me to express his thanks to you and to Professor Crookshank for the great interest which you have shown in this scheme for extending the study of tropical medicine, and also for the suggestions which you have been good enough to put forward.—I am, Sir, your obedient servant,

(Signed) H. Bertram Cox.

The Principal, King's College.

THE PROPOSED SCHOOL FOR TROPICAL DISEASES.

Sir,—The correspondence that has lately been going on in your columns anent the proposed tropical school of medicine, touches a question which is of the deepest interest and importance to those who, like myself, are spending their life in tropical or subtropical lands. On perusing a letter on the subject, signed by a number of eminent medical men, in the *Times* of December 15th,[1] one cannot but express surprise that there are found but two names in the list that can be said to have any practical acquaintance with tropical disease, and therefore of the real needs of the question. How one of those two—Sir Joseph Fayrer—came to sign this letter on the true merits of the case, or lend his name to some of the strange suggestions in that letter, is a mystery to me. Of a very different type is the letter of my old teacher, Mr. Jonathan Hutchinson, who has approached the question in the generous and liberal spirit that characterises all his writings. And yet even he, I venture to say, has neglected the most important consideration in the whole matter—namely, what do the men for whom this provision is admittedly made (that is, qualified men either going to, or on furlough from, the tropics) want? Most assuredly we do not want clinical lectures of the "paper and scissors" type by men who have never practised in the tropics, who know less about the matter than those who have been there, and can only tell those who are going what they can read up for themselves. Neither do we want to attend classes at a "polyclinic," visiting the Seamen's Hospital from time to time, and "and thus make free use of the special opportunities which it affords," for the very simple and sufficient reason that the fullest use would not be made in this way of those opportunities. What is needed is not a general and imperfect acquaintance with the general subject of tropical disease, but a thorough clinical and pathological training in the various diseases in living men, and this can only be obtained by patient work at the bedside. A man will learn more about the symptoms and treatment of such diseases as beri-beri, acute dysentery, liver abscess, and pernicious malarial fever, by following one case out from day to day than by hearing lectures on any number of cases.

Leaving the question of Netley to be discussed by members of the Colonial Medical Service, I come to the statement that "medical men connected with missionary societies and trading corporations, along with those who in a private capacity propose to practise in the tropics, have open to them for the special study of these diseases the London and provincial Schools of Medicine where the subject is already taught." A little experience is worth a great deal of theory, and I may give mine. I was educated at the London Hospital, where, if anywhere in London, in its vast clinic a man has special opportunities of seeing nearly everything. After qualification I held for three months the post of receiving-room officer, which gives a man a unique opportunity of seeing cases, and was then house-surgeon; in addition to this, I spent three months in special hospitals in London; so that I may fairly claim that I have had good opportunities of learning what there was to be learnt.

What did I know practically when I arrived in Mid-China in 1897? I had seen one case of chyluria with filariæ, one case of bilharzia, one case of tubercular and anæsthetic leprosy, and that was all. I had never heard of beri-beri, I had never seen acute or subacute dysentery, liver abscess, psilosis, or the early stages of leprosy, and not a single case of continued malarial fever. All these things I had to learn at my patients' expense.

Now, are matters very much changed in the last ten years? I think not. As far as I know, there is no lectureship yet at the London Hospital, nor yet many others on tropical diseases—Mr. Jonathan Hutchinson to the contrary notwithstanding. I should never have gone to the expense and trouble—as I have done during my furlough—of studying at the Albert Docks Hospital, if I could have found "as good opportunities" in my Alma Mater, where I should, I know have been welcomed, or elsewhere. As to the provincial schools, of only one—Liverpool—can we say that any facilities exist for such study. As to Leeds and Bristol, I can assert that for a man to go there would be a waste of time.

Mr. Hutchinson writes: "Malarial affections will, no doubt, be well represented at the Seamen's Hospital, but it will only be in their more chronic forms." This is quite contrary to fact, as I can testify; and Mr. Hutchinson must be speaking secondhand, and not from personal experience, of the Albert

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[1] Printed in the British Medical Journal for December 17th, 1898, p. 1840.

Dock branch. But considering how widespread malaria is, the vastness of our Colonial possessions, and the number of lives annually lost from this cause alone, it would be worth all the expense and trouble that every man going abroad should have been practically trained in the microscopic diagnosis and the intelligent treatment of malarial fever, and fully equipped, to add further to the knowledge of it.

Sir, this matter is an Imperial one, and Mr. Chamberlain deserves the hearty thanks of the great Colonial communities for taking the matter up. I trust he will succeed in his scheme; it would be a cruel thing (I use the word advisedly) to thwart it.

Whether they consider themselves aggrieved or not it will be, in my opinion, a distinct misfortune if, influenced by any sense of injustice (real or imaginary), the visiting staff of the Dreadnought Hospital decline to co-operate with their Committee in this matter, and it will be a public calamity if any such feeling is allowed to override the real need for such an institution. I feel sure that the medical profession will be true to its great ideals, and treat this question on its merits. Already many of us have to go abroad for special instruction in special branches, and it will be a national disgrace if the greatest colonising empire in the world has to send its medical men elsewhere for their tropical training.

The fact is, these diseases are as much a speciality as eye diseases, or ear diseases, or many other special departments, and the fact remains that the majority of us who want such training go, and will continue to go, where we can get what we want—practical teaching on the living subject from men who are experts in this department.—I am, etc.,

SYDNEY R. HODGE, M.R.C.S., L.R.C.P.
Senior Surgeon to the Wesleyan Mission
Hospital, Hankow, China.

SANATORIA FOR CONSUMPTIVES.

SIR,—Considerable attention has been given to this subject of late, and especially since the Edinburgh meeting of the Association. The recent meeting at Marlborough House, your leading article in the BRITISH MEDICAL JOURNAL of December 24th, 1898, and Dr. Hector Mackenzie's letter in the JOURNAL of December 31st, as well as certain recent publications bearing on the Continental method of treatment of pulmonary consumption, give prominence to the same subject. It may be said at once that there is no provision in this country for the great bulk of poor consumptive patients, and the question is, How is the provision to be made? It is wholly impossible to think of the workhouse infirmary as a solution of the question, and general hospitals are already sufficiently taxed both in regard to space and funds, and the formalities and difficulties and delays attending admission to any of the "homes" so called, or to Ventnor, are well-nigh heartbreaking. Sentiment, too, plays so great a part in the question that care has to be taken not to blunder at the outset. The rooted aversion to the workhouse and its infirmary, usually under the same roof, is mentioned in Dr. Mackenzie's letter, and I can confirm this in every particular. It has been my lot for some years to recommend certain chronic and other cases to the workhouse infirmary, and without exception all demur and object outright until blank necessity compels them to go in. Only last month I suggested to the Richmond Board of Guardians—which is a very advanced and enlightened body of ladies and gentlemen—the advisability of opening a sanatorium for their poor consumptives in the county of Surrey, which is well adapted in many respects for the purpose, and I am hoping that something may come of the suggestion. A good example is required, and although it may not be in the power of Boards of Guardians to expend their funds in this direction, I believe Parliament would not be slow to confer the necessary powers.

The two recently-formed associations—namely, the National Association for the Prevention of Consumption, and the Association of Poor-law Unions—could, by united action, do much in this matter by way of establishing county associations for the collection of funds, and the building and working of sanatoria, and in approaching Parliament to sanction grants in aid either from the county funds or out of the Poor-rate, so that these institutions might be founded on a broad and secure basis, without bearing the stigma of pauperism on the one hand or of pure charity on the other. There are very few so poor whose friends could contribute nothing towards their support in a sanatorium. It is well known that there are thousands under treatment in the Metropolitan General and Special Hospitals who could well afford to pay for their maintenance there, and I am quite sure the same would apply to those seeking admission to consumptive sanatoria.

It is very easy in practice to meet the case of the out-and-out "destitute," of the very poor and of the fairly well-to-do. The great point is to make such provision that easy and prompt admission shall be secured to all classes of consumptives. In Dr. Calwell's translation of Dr. Nahm's pamphlet on *The Erection of a Consumptive Sanatorium for the People* (Mayne and Boyd, Belfast) the subject is pretty fully discussed from the international point of view, but local adaptation to meet social, climatic, and other requirements is a *sine quâ non.* At Ruppertshain the charge is from 3s. to 5s. a day, but Dr. Nahm prefers "equality for all," which is impossible in England. There are many other points in the German system quite inapplicable to this country. Dr. Nahm is of opinion that £200 per bed will suffice, inclusive of verandahs, for the building of a two-storeyed sanatorium with a basement, and air space of 1,000 cubic feet per bed. This is much below the estimate for the erection of infectious hospitals in this country, 1,200 cubic feet being the minimum up to 2,000 for fever and lying-in hospitals and for severe surgical cases (Whitelegge). Dr. Nahm thinks that the "open-window system of ventilation" will compensate for the limited air space. This is doubtful. Whatever the initial cost might be, it would be a diminishing quantity, as the influence of even one county sanatorium would act as much as a preventive, perhaps more, than as a curative institution. If each Poor-law union had a small sanatorium of, say, 50 beds, the initial cost should not exceed £12,500, which could be raised as already pointed out, and £2,600 for nursing and maintenance per annum would, I think, be a liberal allowance. Most of this would come from private benevolence, and the rest from patients' contributions and the public funds.

I think there are very few landlords who would refuse the gift of a suitable site for one or more of these institutions. There are so many suitable spots up and down the country which as arable or grass land are comparatively worthless, and we have abundant evidence of late that the rich and titled are not deaf to the cry of suffering humanity, while royalty itself has taken the field against the ubiquitous microbe.—I am, etc.,

East Sheen, Jan. 1st. ALEXANDER McCOOK WEIR.

P.S.—Since the above was written I have learned that Boards of Guardians can contribute to the maintenance of phthisical pauper patients in homes and hospitals "approved" by the Local Government Board. This, however, means serious delay, and further powers would be necessary before prompt and effective action could be taken. Guardians can also contribute to nursing the sick poor in their own homes, but this is of little use in the case of phthisis. Some interested M.P. should put a question to Mr. Chaplin in the House in order to clear the matter up.

THE COEXISTENCE OF ZYMOTIC DISEASES.

SIR,—In the BRITISH MEDICAL JOURNAL of December 31st, 1898, a case is reported of coexistent measles and scarlet fever, and from time to time one sees similar cases also put on record.

I believe this is due to an erroneous idea, inculcated by some of the medical schools, that the presence of one member of the acute zymotic group is a fairly sure prophylactic against the simultaneous occurrence of another, and hence the impression that the occurrence of, say, measles and scarlet fever together is something unusual.

I think I may safely say that all who have practical experience in the administration of isolation hospitals would most heartily wish that this were so. Unfortunately it is far otherwise, and nothing causes more anxiety in connection with isolation hospital administration than the occurrence of outbreaks of "extraneous" zymotic disease accidentally imported.

In the course of my own comparatively short experience I have frequently seen cases of measles, scarlet fever, diphtheria, whooping-cough, varicella, typhoid, and small-pox grafted upon one another in an almost endless variety of combinations. Nor is the combination necessarily limited to only two diseases. Apparently there is no limit, beyond that of probability, to the possible number that might coexist.

The presence of one infectious disease, so far from preventing the occurrence of a second, in some cases apparently actually predisposes to it, and in order to protect our wards from the by no means rare event of a patient, admitted with one acute zymotic, developing another[1] a few days later, we make it a rule at the hospital with which I am connected not to admit, except into isolation wards, any patient coming from a house in which any other infectious disease is known to be present, special inquiry being made to ascertain this.—I am, etc.,

C. KILLICK MILLARD, M.D., D.Sc.,
Medical Superintendent, City Hospital, Birmingham.
January 11th.

INSUSCEPTIBILITY TO VACCINATION.

SIR,—My experience during the period that has elapsed since the Middlesbrough small-pox epidemic as to the question raised by Dr. Shuter,[2] How far does vaccinia during pregnancy render the child insusceptible to vaccination? does not coincide with Dr. Lockie's case.[3]

CASE I.—E. M.; mother vaccinated with calf lymph during the sixth month of pregnancy, and took well. Child was vaccinated at three months, three times in four places, and on the third occasion only one small vesicle developed.

CASE II.—G. M.; mother vaccinated during the fifth month, child at three months; result similar to Case I.

CASE III.—E. W.; mother vaccinated during the seventh month, child vaccinated at two months and a-half, three times by myself, and twice by my assistant (Dr. Gillan); in each case the lymph was fresh, and the source of supply the Jenner Institute; the same lymph gave good results in all the other cases, and I may state that this is the first insusceptible form I have filled up during the ten years I have been public vaccinator for this district: hence my anxiety to have this failure verified.—I am, etc.,

GEORGE C. H. FULTON, M.B.,
Middlesbrough-on-Tees, Jan. 9th. No. 4 District Middlesbrough Union.

ON THE INCUBATORY PERIOD IN VARICELLA OR CHICKEN-POX.

SIR,—In the BRITISH MEDICAL JOURNAL of January 14th, page 81, there appears an article by Dr. William Sykes upon the incubation period of varicella, in which he states that Dr. Clement Dukes is the only English writer who gives so long an incubation period as nineteen days. May I be allowed to draw the attention of Dr. Sykes to an article in the JOURNAL of September 19th, 1896, by Dr. E. W. Goodall and myself, upon the same subject. In this article we described 19 cases divided into five series. From these cases it was deduced (1) that the incubation period was somewhat variable, (2) that it was never shorter than twelve days, and (3) that it might be as long as nineteen days, and was commonly longer than fourteen days.—I am, etc.,

Cavendish Place, W., Jan. 17th. J. W. WASHBOURN.

OBITUARY.

ARTHUR HENRY WILSON,

M.R.C.S.ENG., L.R.C.P.LOND.,
Surgeon to the Northern Hospital, Liverpool.

IT is with great regret that we have to record the death of Mr. A. H. Wilson, of Liverpool. He was the second son of Mr. C. B. Wilson, formerly of Islington Square, and now of Abercromby Square, Liverpool, and was educated at the Liverpool College. He entered the medical school of the Royal Infirmary, and was by far the most distinguished student of his year, gaining practically every prize which it was possible for him to obtain. On his becoming qualified in 1882 he was appointed House-Surgeon to Mr. E. R. Bickersteth, and afterwards House-Physician to Dr. Glynn, and in both these offices he maintained the high reputation for industry and ability which he had gained as a student. He then took a voyage to South America, and on his return to England studied for some months at University College Hospital, London.

In 1886 he commenced practice as a surgeon in Liverpool, and was appointed Assistant Surgeon to the Stanley Hospital. He threw himself into his work with energy, and on his promotion to the office of full Surgeon took a leading part in the reorganisation of the nursing and the general improvement of the hospital. There can be no doubt that the Stanley Hospital is under a great and lasting obligation to him for the share he took at that time in the work not only of the medical staff, but of the Committee, more especially as regards the share he had in promoting the training of nurses in the hospital and in organising the out-patient department and the operating theatre.

In 1892 he was appointed Surgeon to the Northern Hospital, in succession to Mr. G. G. Hamilton, and had he been spared to reach the average term of professional life he would doubtless have attained to eminence as a surgeon. His early death was the less to be expected as he had always enjoyed excellent health, and his occupation and pursuits were such as gave promise of longevity. About two years ago it was accidentally discovered that he was the subject of valvular disease of the heart, and last summer it became quite evident that his health was failing. For some time the nature of his illness was obscure, but at length it was established beyond doubt that he was suffering from infective endocarditis. He was attended with unremitting care by Dr. Glynn, and by his friend and colleague, Dr. T. Bushby. The end—which had been expected for some weeks—came on Sunday, January 15th.

Mr. Wilson was a man of high character, and had he been spared he would doubtless have been one of the leaders of the profession in his native city. By his death the Northern Hospital loses a true friend and an able surgeon, who will be long regretted by many grateful patients and many friends. The members of the medical profession in Liverpool feel the deepest sympathy with his family in their bereavement.

EDMUND JOSEPH FURNER, F.R.C.S.ENG.,

Consulting Surgeon to the Sussex County Hospital, Brighton.

A NOTABLE citizen of Brighton, and one of the oldest members of the profession in England, died on January 2nd, mourned by a wide circle of friends. Edmund Joseph Furner was born at Brighton on December 13th, 1805, and had thus recently completed his 93rd year. His father was John Furner, one of a family for many years resident in Sussex. His elder brother was for a considerable time judge of the County Court of Sussex; and another brother (Robert) presented Brighton with the valuable collection of prints which bears his name. Mr. Edmund Furner received his professional education at St. George's Hospital, London; and attended lectures in Windmill Street School. He became L.S.A. in 1828, and M.R.C.S. in 1829; and then took a voyage to India as surgeon in charge of a sailing ship. On his return to England he succeeded his cousin, the late Mr. Vallance, as House-Surgeon to the Sussex County Hospital, and subsequently became Surgeon, holding the latter office for thirty-two years. He retired in 1876, when the Committee of Management passed a resolution recording their very high sense of his great surgical ability, and of his extreme and unwearied kindness to the patients under his care. His professional colleagues, too, presented him with an address which in highly eulogistic terms characterised his long services to the hospital, and deplored the loss which the institution and they themselves experienced by his retirement. He was at once appointed Consulting Surgeon, and retained the office until the day of his death; so that he was connected with the hospital in one capacity or another for nearly sixty years.

He recorded a case of Successful Ligature of both Subclavian Arteries for Axillary Aneurysm in 1863, a wonderful case in those preantiseptic days. In 1836 he also published a case of Ligature of the external Iliac Artery for Femoral Aneurysm, and a Case of Transfusion as far back as 1835. He had a large private practice, and took great interest in Freemasonry, passing in succession the various offices until he became Deputy Provincial Grand Master of Sussex. He took interest also in everything that concerned the welfare of Brighton and its charitable institutions. He married in 1837 Arabella, eldest daughter of Mr. John Lawrence, at one time Surgeon in the Grenadier Guards. She died in 1897. Two sons and one daughter survive. The younger son is Mr. Willoughby Furner, also a Surgeon to the Sussex County Hospital. The deceased gentleman was full of anecdote, and retained his faculties unimpaired up to the time of his last brief illness. The interment took place at the Extramural Cemetery, Brighton.

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[1] The diseases most likely to give trouble in this way are measles, varicella, and whooping-cough.

[2] BRITISH MEDICAL JOURNAL, December 31st, 1898.

[3] BRITISH MEDICAL JOURNAL, January 7th, 1899.

ROBERT PRINGLE, M.D.,

Brigade-Surgeon-Lieutenant-Colonel I.M.S.

WE regret to announce the death of this officer, which took place at his residence, Blackheath, on January 13th. Dr. Pringle was the son of an Indian officer and was educated in Edinburgh, where he graduated in 1854. He entered the Bengal Medical Service, in which he served thirty years, until his retirement in 1884. The greater part of his Indian service was spent in civil employ in the Sanitary Department of the North West Provinces. He gained a wide experience in the various departments of public health, especially of vaccination. The knowledge he thus acquired found expression in numerous articles which he contributed to various periodical publications, among which may be mentioned, Ancient and Modern Methods of Treating Small-pox in India, Vaccination *v.* Isolation, What is Efficient Vaccination? on Enteric Fever and Bubonic Plague in India, Storage of Rain Water for Drinking, Quarantine, on Cholera, etc.

He was a man of a very active mind and held strong views on many social questions; he was an ardent advocate of temperance and took a keen interest in matters affecting the public health. He was a member of the British Medical Association, and for many years was a very regular attendant at its annual meetings.

GEORGE FREDERICK FARR, M.R.C.S., L.R.C.P.ED.

WE have to announce with much regret the death of Dr. George F. Farr, of Kennington, which took place somewhat suddenly from cerebral hæmorrhage at his residence in Twickenham on January 11th. He was born at Baldock, Herts, on March 23rd, 1832. He entered as a student of Guy's Hospital, and obtained the diploma of M.R.C.S. in 1859, and that of L.R.C.P.Ed. in 1860. Starting in practice in Union Street, Borough, he removed to West Square some time after, taking over the practice of the late Dr. Wakem. For nearly forty years he practised in the neighbourhood of Kennington. He was Surgeon to the L Division of the Metropolitan Police and Surgeon to Scotland Yard, both which appointments he held for many years. His genial manner and kindly bearing towards his patients made him a general favourite. His loss will be keenly felt by a very large circle of friends and patients. The first part of the funeral service took place at St. Philip's, Kennington, on January 16th, the interment taking place at Eltham, Kent.

JAMES ARTHUR SEWELL, M.D.EDIN., L.R.C.S.EDIN.

DR. J. A. SEWELL died on January 2nd at his residence, Beau Rivage, Mentone. He came of a family long settled in Canada. His father was a medical practitioner in Quebec, and his grandfather was Chief Justice of Lower Canada. James Arthur Sewell was born in London but partly educated in Canada, and graduated M.D. at Edinburgh in 1856, in which year also he became L.R.C.S.Edin. He entered the medical service of the Honourable East India Company in the following year, and during the Mutiny was amongst the slender garrison of white troops who held the fort at Agra until the capture of Delhi. He was present at several of the engagements which took place with the mutinous regiments around Agra. After serving eight years in India he resigned his commission and went to Canada.

About 1878 he came to London, where he was doing well in practice when his health gave way and he exhibited symptoms of phthisis. For fifteen years he struggled with fortitude against his malady, visiting the Engadine, Pau, and Mentone, and other health resorts. Dr. Sewell was of commanding stature and fine presence, skilled in his profession, and much interested in politics and literature, a brilliant conversationalist, well informed, possessing a fund of anecdote, witty and humorous. His long and trying illness was cheered by the company and care of his wife and daughter. A son also survives him.

DR. WILLIAM H. MURRAY, of Galashiels, who has just died at the comparatively early age of 45, was the son of the parish minister of Cumnock. He was educated at the University of Edinburgh, where he graduated M.B., C.M. in 1874, and M.D. in 1876. He settled in Galashiels some twenty-four years ago, and in no long time became one of the leading practitioners in the town, in the public life of which he took an active and prominent part. For about a dozen years Dr. Murray had been the leading spirit in the Galashiels Horticultural Society, of which he was Vice-President. He was a keen cultivator of vegetables, fruit, roses, and chrysanthemums, the last of which gained prizes at the Edinburgh Shows. In the Conservative Association Dr. Murray was an active worker, and at election times was one of the most active organizers and speakers in the Unionist cause. For several years Dr. Murray, along with other medical men in the town, carried on successful ambulance classes, to which he was usually chosen as lecturer. In the promotion of the Cottage Hospital and the Queen Victoria Jubilee Nurses' Institution in the town Dr. Murray also took a deep interest, being for some years a manager in the former institution. He leaves a widow and two sons and two daughters.

ROYAL NAVY AND ARMY MILITARY SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: STEWART F. HAMILTON, Fleet-Surgeon, to the *Jupiter*, January 17th; JAMES L. SWEETNAM, Fleet-Surgeon, to the *Unicorn*, January 17th; JOHN DUDLEY, Fleet-Surgeon, to the *Vivid*, additional, for Devonport and Keyham Dockyard, January 16th; HAROLD R. OSBORNE, Staff-Surgeon, to the *Pembroke*, temporarily, January 17th; PERCY E. MAITLAND, Staff-Surgeon, to the *Raleigh*, January 17th; CHARLES STRICKLAND, Staff-Surgeon, to the *Volage*, January 17th; JAMES W. O. UNDERHILL, Staff-Surgeon, to the *Medea*, temporarily, January 17th; HAROLD HUSKINSON, M.B., Surgeon, to the *Pembroke*, additional, for disposal, January 14th.

ARMY MEDICAL SERVICE.

SURGEON-GENERAL JOHN ANDREW WOOLFRYES, M.D., C.B., C.M.G., retired pay, late Medical Department, is appointed Honorary Physician to the Queen, *vice* Surgeon-General A. Smith, M.D., C.B., deceased, January 18th. Surgeon-General Woolfryes entered the service as Assistant-Surgeon July 13th, 1847; became Surgeon July 20th, 1855; Surgeon-Major October 7th, 1867; Deputy-Surgeon General, April 1st, 1874, and Surgeon-General June 23rd, 1880. He was granted retired pay June 14th, 1883. He served in the Ashanti war in 1873-4, part of the time as Principal Medical Officer, and was at the battles of Amoaful and Ordahsu, and at the capture of Coomassie (mentioned in despatches, promoted Deputy-Surgeon-General, medal with clasp). He was Principal Medical Officer throughout the Gaika and Galeka rebellions in 1877-8 (mentioned in despatches and C.B.), and was also Principal Medical Officer throughout the Zulu war and the operations against Sekukuni in 1879 (C.M.G. and medal with clasp).

Deputy Surgeon-General Sir ROBERT W. JACKSON, K.C.B., has been awarded a good service pension of £100 per annum. He was appointed Assistant Surgeon, May 26th, 1854; became Surgeon, August 7th, 1866; Surgeon-Major, March 1st, 1873; Brigade-Surgeon, May 5th, 1881; and Honorary Deputy Surgeon-General on retirement, December 16th, 1882. He was with the 90th Light Infantry in the Crimea from December 5th, 1854, including the siege and fall of Sebastopol (medal with clasp, and Turkish medal). During the Indian Mutiny he had medical charge of a battalion at the relief of Lucknow by Lord Clyde, and was present at the battle of Cawnpore on December 6th, 1857, with Outram's Force at the Alumbagh, assault and capture of Lucknow; in medical charge of the Camel Corps at the assault and capture of Calpee; present at the capture of the Forts of Dehaign and Tyrhool in Oude, also during the final operations of Jugdespore (medal with three clasps). He accompanied Sir Garnet Wolseley to the Gold Coast in September, 1873, and served throughout the Ashanti war of 1873-74, including the action of Essaman, relief of Abrakrampa, battle of Amoaful, battle of Ordahsu and capture of Coomassie; and was in medical charge of the 1st Field Hospital from its formation to the end of the campaign (mentioned in despatches, C.B., medal with clasp). He also served in the operations against Sekukuni in 1879, including the storming of the stronghold (mentioned in despatches, medal); and in the Egyptian war of 1882, being present at the battle of Tel-el-Kebir (mentioned in despatches, K.C.B., medal with clasp, 3rd class of the Medjidie, and Khedive's star).

ROYAL ARMY MEDICAL CORPS.

MAJOR GEORGE W. BRAZIER-CREAGH is seconded for special extra-regimental employment, December 7th, 1898.

It has been decided that the medical officers of the Household Troops shall retain the titles they held before the issue of the Royal Warrant forming the Royal Army Medical Corps.

Lieutenant-Colonel W. J. CHARLTON, who is serving in the Punjab Command, is appointed to officiate on the administrative medical staff of the Indian army, with the temporary rank of Colonel, from December 1st, 1898.

ARMY MEDICAL RESERVE.

SURGEON-LIEUTENANT **ARTHUR P. NUTTALL**, M.D., 1st Volunteer Battalion the Lancashire Fusiliers, to be Surgeon-Captain, January 18th.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL **F. C. CHATTERJIE**, M.B., Bengal Establishment, *died* at Azimghur, India, on September 11th, 1898. He joined the department, October 1st, 1877, and became Surgeon-Lieutenant-Colonel, October 1st, 1897. He was with the Burmese expedition in 1886-7, and had the Indian Frontier medal with clasp.

Captain **J. G. HULBERT**, M.B., Bengal Establishment, is appointed Personal Assistant to the Principal Medical Officer, Bengal Command, from November 23rd, 1898.

Surgeon-General **WILLIAM PEARL**, late of the Madras Establishment, died in London on January 10th, aged 66, after a very short illness. He was appointed Assistant-Surgeon, January 24th, 1855, and became Deputy Surgeon-General, August 15th, 1881. He retired from the service with the honorary rank of Surgeon-General, March 18th, 1885.

THE VOLUNTEERS.

SURGEON-LIEUTENANT **H. H. GOURLEY**, M.B., 4th Durham Artillery (Western Division Royal Artillery), is promoted to be Surgeon-Captain, January 18th.

Surgeon-Major **A. H. ROBINSON**, M.D., 2nd Middlesex Artillery, has resigned his commission, retaining his rank and uniform, January 18th.

Surgeon-Lieutenant **J. D. FARQUHARSON**, M.B., 1st Newcastle-on-Tyne Artillery (Western Division Royal Artillery) is promoted to be Surgeon-Captain, January 18th.

Surgeon-Lieutenant **HAROLD HEBBLETHWAITE**, 3rd Volunteer Battalion the Duke of Wellington's West Riding Regiment, resigns his commission, and is appointed Lieutenant, January 18th.

Mr. **EDWARD JAMES DECK** is appointed Surgeon-Lieutenant in the 1st *Cinque Ports* Rifles.

VOLUNTEER MEDICAL STAFF CORPS.

MR. **JOHN A. P. LOCKETT** is appointed Surgeon-Lieutenant in the Woolwich Company, January 18th.

MEDICO-LEGAL.

A CASE OF PERSONATION.

ON January 14th, at the Central Criminal Court, Edward Joseph Nugent, otherwise Julian Rowland, described as a surgeon, was indicted for, and charged on a coroner's inquisition with, the manslaughter of Jane Elizabeth Smith.

In opening the case Counsel said that what was alleged against the prisoner was that he, holding himself out as a person competent to discharge his duty as a medical man, acted in so negligent and improper a manner that he caused the death of the deceased woman. The prisoner had for some time passed under the name of Edward Joseph Nugent, and had held himself out as a duly qualified medical man, and he was practising as a medical man with the name of Nugent on his door in Barking Road, West Ham. It was alleged by the prosecution that the prisoner was a man whose real name was Rowland, and that he had taken the name of Nugent having known that there was a qualified medical man of that name who had left the country. Counsel then detailed the circumstances of the prisoner's attendance on the deceased, who, it was stated, was delivered of a perfectly healthy child without trouble of any kind. It was alleged by the prosecution that the prisoner acted so negligently immediately after the confinement that the deceased's death was caused.

Witnesses were called on the part of the prosecution.

Dr. Carey, who had been called to the patient, in cross-examination stated that he was of opinion that it was a case of spontaneous inversion of the uterus. He had seen the prisoner four times, and thought he possessed due skill.

Dr. Kennedy, who made the *post-mortem* examination, said that he was of opinion that the cause of death was hæmorrhage, following upon inversion of the uterus.

Dr. Luff said that in his opinion death was due mainly to shock, but partly to hæmorrhage, both caused by inversion of the uterus.

Counsel for the defence said he could call a number of witnesses who would say that the prisoner treated them with skill, but after a remark from the Judge that this would not help the prisoner, Counsel said that he would not call the evidence, and addressed the jury for the defence.

Mr. Justice Darling having summed up, the jury found the prisoner guilty.

The case was then adjourned until the following day, as it was thought necessary to try another indictment, which charged the prisoner with perjury.

On the following day the prisoner was indicted for committing perjury in evidence given by him at the inquest held as to the cause of death of Jane Elizabeth Smith.

Counsel for the prosecution stated that the prisoner represented himself to be a duly qualified medical man of the name of Edward Joseph Nugent.

In opening the case counsel said the prisoner had attended deceased in her confinement and had given a certificate of death, and signed it E. J. Nugent, L.R.C.S., and stating that the primary cause of death was hæmorrhage and the secondary cause exhaustion. At the inquest prisoner swore that his name was Nugent, that he was a qualified man, a Licentiate of the Royal College of Surgeons, Ireland, a Licentiate of the Royal College of Physicians, Ireland, that his name was not Rowland, and that he had no other name except his real name of Nugent. From information which had reached the coroner it was thought desirable that the prisoner should be pressed as to his identity, and his answers were of so unsatisfactory a character that the matter was fully inquired into with the result that it was ascertained that his whole description of himself was absolutely false. It was found that he was not a duly qualified medical man, that he was not a Licentiate of the Royal College of Surgeons, Ireland, or a Licentiate of the Royal College of Physicians, Ireland; it was also ascertained that his name was not Nugent, but in fact, Rowland.

Counsel for the defence submitted that the prisoner's description of himself was not material to the issue before the coroner at the inquest, but the Judge overruled the objection, thereupon the prisoner's plea of "not guilty" was withdrawn.

After evidence had been given on behalf of the prisoner and a petition in his favour which had been largely signed by the inhabitants of Barking had been produced, Mr. Justice Darling said the perjury which the prisoner had committed was of a peculiarly dangerous character. He sentenced the prisoner to 3 years' penal servitude on the charge of manslaughter and 3 years' penal servitude on the charge of perjury, the sentences to run concurrently.

WHAT IS UNQUALIFIED PRACTICE?

ON January 16th the coroner, Mr. Braxton Hicks, held an inquest on the body of Elizabeth Davis, aged 76 years, widow, lately living at Auckland Street, Lambeth, who died on January 11th. According to the evidence as reported it appeared that the deceased had a fall on New Year's Day and sustained a fractured thigh. Her daughter, Mrs. Jessie Brown, went to a dispensary in Tyre Street for Mr. Holland. She saw a young gentleman, who came and saw her mother and ordered her beef tea and brandy. Later on Mr. Holland came, and he said he thought her mother had fractured her hip and that she was to be kept quiet in bed. He came again the next day, but not again until the following Monday, when the witness had to fetch him. Mr. Holland was then the worse for drink.

Mr. George Davis, a son of the deceased, and Bertha Davis, corroborated this part of the evidence.

John Blumenthal, described as dispenser at the Medical Hall in Tyre Street, said he was the son of a medical man, but was not qualified. He happened to be passing the house in Tyre Street and seeing it was to let he decided to open it as a medical hall, entering into arrangements with Mr. Holland. Mr. Holland told witness that under no circumstances was he to attend cases. Witness had never posed as a doctor, but he had prescribed over the counter.

Evidence was also given by Mr. Neville Holland, M.R.C.S., L.S.A., who said that Mr. Blumenthal had asked him to come and endeavour to work up a practice, he acting as a dispenser. Witness said that he had paid the deceased great attention and told the daughter he feared there was a fracture of the thigh, but he was subsequently inclined to alter that opinion. He denied that he was drunk, although he stated it was possible he had had a glass or two.

Dr. George Nicol Henry, who made a *post-mortem* examination, stated that death was due to exhaustion from broncho-pneumonia accelerated by the fractured thigh. Her treatment was perfectly correct, as keeping the patient in bed was the only thing that could be done.

The jury returned a verdict of "Accidental death," and added that they considered Mr. Holland deserving of grave censure for his treatment of the deceased, and also expressed the opinion that the Medical Hall was a fraud on poor working people.

The coroner stated that he agreed with the jury, and added that Mr. Holland appeared to be helping Blumenthal to keep the so-called dispensary, and that the matter would be reported to the General Medical Council. He also added with regard to Blumenthal that it was a case for prosecution by the Society of Apothecaries.

It may be added that Mr. Holland, in reply to the coroner's remark that his name was not on the *Medical Register* in 1896, admitted that he was off the *Register* for two years, and that it was not through inadvertence.

CONVICTION OF A "HERBALIST."

AT the Central Criminal Court, George Hare, aged 69, described as a herbalist, was indicted for using a certain instrument with intent to procure miscarriage in a married woman. The prisoner carried on business as a vendor of medicines at Goldhawk Road and Cathnor Road, London. At the last-mentioned address he was visited by a young married woman, who had been induced to consult him in consequence of handbills which she had seen announcing his medicines.

She alleged that he performed an operation upon her, and that in consequence she had a miscarriage.

In defence the prisoner denied having performed any operation, but the jury found him guilty.

According to the report, Mr. Justice Darling said the prisoner no doubt had been a regular abortionist for many years. In this case it was no thanks to the prisoner that death did not result. In May, 1889, he was convicted before Mr. Justice Hawkins, and sentenced to ten years' penal servitude for a similar offence, and at that time there was an indictment charging him with the wilful murder of another woman who had died from the effects of an operation.

The prisoner was sentenced to twelve years' penal servitude.

ACTION FOR ALLEGED NEGLIGENCE.

THE case of Franks *v.* Hargreaves was an action against a medical man for alleged negligence in the treatment of the plaintiff's broken leg. The plaintiff, George John Franks, was a carpenter at Wimbledon; and Dr. Mark Kippax Hargreaves, practising at Wimbledon and London, was defendant.

According to the report of the case, it appeared that on September 11th, 1897, the plaintiff was playing football, when his leg was broken, and the defendant set the limb. The plaintiff's case was that both the tibia and the fibula had been broken, and that the defendant had only set one bone. Mr. David Findlay, who was called for the plaintiff, said he had no doubt that both bones had been broken, and the defendant ought to have discovered it. He also said that the defendant ought to have put on extension. The plaintiff said that the limb was now five-eighths of an inch shorter, and he could no longer run, but only shuffle. The defendant said that he had examined the limb before setting, and had formed the conclusion that the tibia was broken and not the fibula. He had tried the fibula, and found it all right at the one part, and he did not test it further, as to do so might have caused a compound fracture, and that the treatment for a broken tibia was the same as when both tibia and fibula were broken. Mr. Douglas Drew, who was called for the defence, stated that the skiagraph taken recently by the Roentgen rays showed that both bones had been broken. The usual shortening in such cases was one-half to three-quarters of an inch. Extension was unnecessary, and in his opinion the proper treatment had been adopted. Other expert evidence having been given for the defence, Mr. Justice Mathew, in summing up, said that the defendant was bound to use reasonable care and skill, but a medical man was not responsible for an error of judgment. Had the plaintiff suffered more than he might expect from getting his leg broken? It was an important case for the defendant, but, if the plaintiff had a real grievance, he was entitled to a verdict. It was not desirable that if medical men were called in suddenly that they should be intimidated by the prospect of an action being brought against them. The jury found for the defendant. Judgment accordingly.

The defence was conducted by the Medical Defence Union.

AN UNQUALIFIED MEDICAL PRACTITIONER.

THE following case is reported in the *Huddersfield Daily Chronicle* of Friday, January 13th:

At the Huddersfield County Court held on January 12th, before Vincent J. Thompson, Esq., deputy judge, an action was brought by the Society of Apothecaries of London against Thomas Owen Davies, of Ingfield Terrace, Linthwaite, for having acted as a medical practitioner without being duly qualified. The defendant did not appear, and judgment was given for the Society for the full penalty of £20 and costs.

THE DUTIES OF A POLICE-SURGEON.

MR. GEORGE HARRISON (Surgeon of Police, City of Chester, and Cheshire Constabulary) writes: In the BRITISH MEDICAL JOURNAL of January 14th I notice under Medico-Legal, page 128, that you quote the police-surgeon of Chester as receiving £30 for attendance and medicine for 47 men. This is not quite accurate, as two years ago the force was increased to 50 men, and my salary raised to £45. With regard to Coventry £50 a year for 56 men would be a very fair remuneration, the only duties further than attendance on police to be attendance when sent for to prisoners in the cells. All other calls must, of course, be extra.

UNQUALIFIED ASSISTANTS AND THE GENERAL MEDICAL COUNCIL.

MEMBER OF THE ASSOCIATION asks what steps should be taken to bring before the notice of the General Medical Council the conduct of a medical man who still continues to keep an unqualified assistant.

*** The facts relating to the case must be embodied in a statutory declaration to be made by the complainant and forwarded to the General Medical Council. Legal advice should be obtained in order that the facts may be properly set out.

M.D.BRUX.

ETHICS.—We are not aware of anything to preclude the registration of the degree of M.D.Brux. obtained prior to June 25th, 1886, as an additional title, by a practitioner previously registered.

ANOTHER correspondent writes that he holds the M.D.Brux., and has never written the M.D. without indicating its source, but he suggests that a small capital on the same line should be used to indicate the university, such as M.D.B.

*** We think it would be preferable to indicate the university as before in cases where the degree is not registrable.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,580 births and 3,995 deaths were registered during the week ending Saturday last, January 14th. The annual rate of mortality in these towns, which had been 19.1 per 1,000 in each of the two preceding weeks, declined again to 18.3 last week. The rates in the several towns ranged from 11.0 in Brighton, 11.8 in Derby, 12.6 in Cardiff, and 12.9 in Leicester and in Hull to 22.4 in Manchester, 22.5 in Gateshead, 23.2 in Oldham, and 24.0 in Sunderland. In the thirty-two provincial towns the mean death-rate was 18.5 per 1,000, and exceeded by 0.5 the rate recorded in London, which was 18.0 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.6 per 1,000: in London the rate was equal to 1.5 per 1,000, while it averaged 1.7 in the thirty-two provincial towns, among which the highest zymotic death-rates were 2.6 in Leeds, 2.8 in Norwich, 3.0 in Nottingham, and 3.2 in Birkenhead. Measles caused a death-rate of 1.0 in Bolton, in Salford, and in Gateshead, and 1.5 in Nottingham; scarlet fever of 1.0 in Swansea; whooping-cough of 1.0 in Huddersfield and in Swansea, and 1.8 in Bristol; and "fever" of 1.3 in Bolton. The 85 deaths from diphtheria in the thirty-three towns included 34 in London, 8 in Leeds, 5 in Liverpool, 4 in West Ham, 4 in Sheffield, 3 in Portsmouth, 3 in Norwich, and 3 in Nottingham. No fatal case of small-pox was registered during the week under notice, either in London or in any of the thirty-two large provincial towns; and only 1 small-pox patient was under treatment in the Metropolitan Asylum Hospitals on Saturday last, January 14th. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 2,939 and 2,912 at the end of the two preceding weeks, had further declined to 2,777 on Saturday last; 220 new cases were admitted during the week, against 221, 225, and 291 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, January 14th, 981 births and 663 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 18.2 and 21.3 per 1,000 in the two preceding weeks, further rose to 21.7 last week, and was 3 4 per 1,000 above the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 13.7 in Greennock and 14.9 in Paisley to 26.3 in Edinburgh and 32.1 in Perth. The zymotic death-rate in these towns averaged 2.9 per 1,000, the highest rates being recorded in Greenock and Aberdeen. The 299 deaths registered in Glasgow included 3 from measles, 5 from scarlet fever, 4 from diphtheria, and 19 from whooping-cough. Four fatal cases of scarlet fever, 2 of diphtheria, and 10 of whooping-cough were recorded in Edinburgh; 2 deaths from diphtheria occurred in Leith and 2 in Aberdeen.

ENGLISH URBAN MORTALITY IN THE FOURTH QUARTER OF 1898.

[SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL.]

THE vital statistics of the thirty-three large English towns dealt with by the Registrar-General in his weekly returns are summarised in the accompanying table. During the three months ending December last, 82,990 births were registered in these thirty-three towns, equal to an annual rate of 29.7 per 1,000 of their aggregate population, estimated at 11,218,378 persons in the middle of 1898. In the corresponding periods of the three preceding years the birth-rates in these towns were 29.3, 31.3, and 30.1 per 1,000 respectively. In London the birth-rate last quarter was 28.9 per 1,000, while it averaged 30.2 in the thirty-two provincial towns, among which it ranged from 21.7 in Huddersfield, 22.5 in Halifax, 22.8 in Bradford, and 24.1 in Brighton to 33.2 in Gateshead, 33.9 in Salford, 34.6 in Sheffield, 34.8 in Sunderland, and 35.2 Liverpool,

During the quarter under notice 50,601 deaths were registered in the thirty-three towns, corresponding to an annual rate of 18.1 per 1,000, against 19.4, 18.8 and 19.0 in the fourth quarters of the three preceding years. In London the rate of mortality was 17.2 per 1,000, while it averaged 18.7 in the thirty-two large provincial towns, among which it ranged from 11.9 in Croydon, 13.4 in Cardiff, 15.0 in Huddersfield, 15.1 in Derby, and 15.4 in Leicester to 20.8 in Newcastle-upon-Tyne, 21.0 in Sunderland, 22.0 in Salford, 22.3 in Manchester, and 23.1 in Liverpool. The 50,601 deaths registered in the thirty-three towns last quarter included 5,980 which were referred to the principal zymotic diseases, equal to an annual rate of 2.14 per 1,000, against 3.05, 1.74, and 2.34 in the corresponding periods of the three preceding years. In London the zymotic death-rate last quarter was equal to 1.72 per 1,000, while it averaged 2.42 in the thirty-two provincial towns, among which it ranged from 0.90 in Croydon, 1.29 in Huddersfield, 1 34 in Plymouth, 1.42 in Birkenhead, and 1.45 in Derby to 3.23 in Sunderland, 3.33 in Nottingham, 3.55 in Salford, 4.06 in Norwich, and 5.31 in Swansea. The 5,980 deaths referred to the principal zymotic diseases in the thirty-three towns during the quarter under notice included 1,850 which resulted from diarrhœa, 1,140 from diphtheria, 1,004 from "fever" (principally enteric), 947 from measles, 622 from whooping-cough, 415 from scarlet fever, and 2 from small-pox. The 1,850 fatal cases of diarrhœa were equal to an annual rate of 0.66 per 1,000, and considerably exceeded the average. In London the diarrhœa death-rate was equal to 0.42 per 1,000, while it averaged 0.82 in the thirty-two provincial towns, among which this disease showed the highest proportional fatality in Norwich, Manchester, Salford, Burnley, Hull, Sunderland, and Gateshead. The deaths referred to diphtheria, which had been 680 and 681 in the two preceding quarters, rose to 1,140 during the three months under notice, and were equal to an annual rate of 0.41 per 1,000; in London the death-rate from this disease was 0.46 per 1,000, while it averaged 0.38 in the thirty-two provincial towns, among which diphtheria was proportionally most fatal in West Ham, Portsmouth, Cardiff, Swansea, Leicester, Leeds, and Sheffield. The fatal cases of "fever" (including typhus, enteric, and simple and ill-defined forms of fever), which had been 305 and 428 in the two preceding quarters, further rose to 1,004 during the three months ending December last, and were equal to an annual rate of 0.36 per 1,000: in London the "fever" death-rate did not exceed 0.26 per 1,000, while it averaged 0.42 in the thirty-two provincial towns, among which this disease caused the highest proportional fatality in Norwich, Preston, Bolton, Salford, Sheffield, Hull, Sunderland, and Newcastle-upon-Tyne. The deaths from measles, which had declined from 2,749 to 662 in the three preceding quarters, rose again to 947 during the three months under notice, and were equal to an annual rate of 0.34 per 1,000; in London the death-rate from this disease was equal to 0.24 per 1,000, while it averaged 0.41 in the thirty-two provincial towns, among which measles was proportionally most fatal in Portsmouth, Norwich, Nottingham, Liverpool, Manchester, Salford, and Bolton. The fatal cases of whooping-cough, which had declined from 1,596 to 986 in the three preceding quarters, further fell to 622 during the three months ending December, 1898, and were equal to an annual rate of 0.22 per 1,000; in London the death-rate from whooping-cough was equal to 0.22 per 1,000, while it averaged 0.23 in the thirty-two provincial towns, among which this disease showed the highest proportional fatality in Cardiff, Swansea, Bristol, Nottingham, Preston, and Halifax. The deaths referred to scarlet fever, which had declined from 509 to 312 in the four preceding quarters, rose again to 415 during the three months under notice, and were equal to an annual rate of 0.15 per 1,000; in London the scarlet fever death-rate was 0.12 per 1,000, while it averaged 0.16 in the thirty-two large provincial towns, among which this disease was proportionally most fatal in Portsmouth, Norwich, Nottingham, Liverpool, Salford, Bolton, and Sunderland. Of the 2 fatal cases of small-pox registered last quarter in the thirty-three towns, 1 was recorded in London and 1 in Liverpool.

Infant mortality in the thirty-three towns, measured by the proportion of deaths under one year of age to registered births was equal to 159 per

Analysis of the Vital and Mortal Statistics of Thirty-three of the Largest English Towns during the Fourth Quarter of 1898.

Towns.	Estimated Population middle of 1898.	Births.	Deaths.	Annual Rate per 1,000 Living.			Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Fever.	Diarrhoea.	Deaths of Children under one year of age to 1,000 Births.	Rate per cent. of Uncertified Deaths.
				Births.	Deaths.	Principal Zymotic Diseases.										
33 Towns	11,218,378	82,990	50,601	29.7	18.1	2.14	5,980	2	947	415	1,140	622	1,004	1,850	159	1.2
32 Provincial Towns	6,713,612	50,558	31,297	30.2	18.7	2.42	4,055	1	682	276	629	382	708	1,377	172	1.6
London	4,504,766	32,402	19,304	28.9	17.2	1.72	1,925	1	265	139	511	240	296	473	139	0.6
West Ham	286,654	2,223	1,125	31.0	15.7	2.97	212	—	31	7	70	12	37	55	154	2.4
Croydon	124,421	787	368	25.4	11.9	0.90	28	—	—	3	2	4	8	11	102	—
Brighton	122,310	734	520	24.1	17.1	1.56	47	—	3	2	13	2	10	17	196	—
Portsmouth	186,618	1,272	780	27.3	16.8	2.55	119	—	39	13	34	1	22	10	134	0.9
Plymouth	99,136	683	458	27.6	18.5	1.34	33	—	13	1	2	3	2	12	163	0.7
Bristol	316,900	2,234	1,269	28.3	16.1	1.56	123	—	3	3	4	43	10	60	158	0.6
Cardiff	177,770	1,327	593	29.9	13.4	1.69	75	—	5	1	23	19	4	23	167	1.0
Swansea	102,001	712	524	28.0	20.6	5.31	135	—	13	6	83	15	4	14	192	1.7
Wolverhampton	88,051	708	447	32.3	20.4	1.87	41	—	—	5	7	1	6	22	178	1.6
Birmingham	510,343	4,161	2,450	32.7	19.3	1.63	207	—	40	6	32	21	28	80	184	2.6
Norwich	111,699	833	539	29.9	19.4	4.06	113	—	36	9	7	3	23	35	193	1.1
Leicester	208,662	1,452	799	27.9	15.4	1.93	100	—	—	12	30	5	16	37	155	1.8
Nottingham	236,137	1,615	1,064	27.4	18.1	3.33	196	—	82	17	8	23	16	50	184	0.8
Derby	104,834	742	394	28.4	15.1	1.45	38	—	1	5	3	5	12	12	151	—
Birkenhead	113,189	891	477	31.6	16.9	1.48	40	—	1	5	11	3	14	6	172	0.6
Liverpool	633,645	5,565	3,644	35.2	23.1	2.74	434	1	98	41	54	45	57	138	167	3.5
Bolton	122,495	930	597	30.5	19.5	2.84	87	—	26	8	1	1	21	30	152	0.3
Manchester	539,079	4,268	2,991	31.8	22.3	3.00	403	—	124	13	18	29	50	169	203	1.1
Salford	215,702	1,821	1,181	33.9	22.0	3.55	191	—	34	21	15	7	39	75	176	0.7
Oldham	148,288	964	659	26.1	17.8	1.51	56	—	3	9	3	9	10	22	190	0.2
Burnley	109,546	710	439	26.0	16.1	2.01	55	—	—	4	3	—	5	43	192	1.8
Blackburn	133,228	843	654	25.4	19.7	2.46	82	—	9	6	16	4	16	31	208	2.8
Preston	116,356	843	602	29.1	20.8	2.72	79	—	—	1	3	32	17	26	241	2.8
Huddersfield	102,454	555	384	21.7	15.0	1.30	33	—	7	—	2	5	3	16	169	1.6
Halifax	96,729	543	388	22.5	16.1	2.02	49	—	2	6	2	20	10	9	153	2.6
Bradford	233,737	1,331	965	22.8	16.6	1.47	85	—	5	3	4	8	28	37	169	1.5
Leeds	416,618	3,235	1,871	31.1	18.0	2.78	289	—	27	26	100	13	55	68	160	0.6
Sheffield	356,478	3,074	1,720	34.6	19.4	3.09	274	—	16	15	68	16	85	74	164	2.4
Hull	229,887	1,801	990	31.4	17.3	2.23	128	—	8	5	2	6	32	75	163	1.1
Sunderland	143,849	1,249	753	34.8	21.0	3.24	116	—	20	11	1	9	31	44	143	0.9
Gateshead	103,775	858	497	33.2	19.2	2.27	59	—	13	4	1	8	5	28	202	0.4
Newcastle-on-Tyne	223,021	1,634	1,155	29.4	20.8	2.30	128	—	23	8	7	10	32	48	178	0.6

1,000 during the three months ending December, 1898, against 178, 150, and 160 in the corresponding quarters of the three preceding years. In London the rate of infant mortality was equal to 139 per 1,000, while it averaged 172 in the thirty-two provincial towns, among which it ranged from 102 in Croydon, 134 in Portsmouth, 143 in Sunderland, and 15.1 in Derby and in Halifax to 193 in Norwich, 202 in Gateshead, 203 in Manchester, 208 in Blackburn, and 241 in Preston.

The causes of 606, or 1.2 per cent., of the deaths in the thirty-three towns during the three months ending December, 1898, were not certified, either by a registered medical practitioner or by a coroner. The proportion of uncertified deaths in London did not exceed 0.6 per cent., while it averaged 1.6 in the thirty-two provincial towns. The causes of all the deaths during the quarter were duly certified in Croydon, in Brighton, and in Derby, and only one was uncertified in Oldham; while the largest proportions of uncertified deaths were registered in West Ham, Birmingham, Liverpool, Blackburn, Preston, Halifax, and Sheffield.

DRESSER'S ORDER FOR MEDICAL ATTENDANCE.

C. H. H. writes that he as a district medical officer attended a midwifery case on an order issued by a dresser, the case appearing to be urgent, as he was directed to attend "at once," and that on a similar order two years back he attended the same patient, and the guardians paid the fee. They now refuse to pay for the last attendance, as they consider the order should not have been given by the dresser. Our correspondent asks whether he is likely to succeed if he sues the guardians for the fee in question.

*** **As the dresser was led to regard the case as an urgent one, it appears to us that it was his duty to grant the order, and we believe that the guardians are liable for the fee claimed.**

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF OXFORD.

RADCLIFFE TRAVELLING FELLOWSHIP.—An examination for a Radcliffe Travelling Fellowship will be held during Hilary Term, 1899, commencing on Tuesday, February 28th. The condition necessary for candidature will be found in the University *Calendar*. Intending candidates should send their names, addresses, and qualifications to the Radcliffe Examiners, Radcliffe Library, Museum, Oxford, on or before Tuesday, January 31st.

ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

AT a stated business meeting of the College, held on Friday, January 13th, the following candidates were admitted Members of the College: Alexander Charles O'Sullivan and George John Peacocke.

UNIVERSITY OF LONDON.

MEETING OF CONVOCATION.

A MEETING was held at the University Building on January 16th, Mr. BUSK, Chairman of Convocation, presiding.

On the motion of Mr. A. L. MORRIS, LL.B., B.A., seconded by Professor SILVANUS THOMPSON, D.Sc., the report of the Standing Committee, which referred to the regulations for the final examination for the degree of LL.B., was adopted.

Mr. R. W. HINTON, B.A., moved:

> That in the opinion of this House the new regulations for the Matriculation Examination tend to discourage the study of modern languages in schools by making them entirely optional and alternative to science.

He said that sciences would gradually come to be chosen instead of languages as optional subjects, and that the whole scheme for the examination was inimical to the study of modern languages.

Mr. W. T. LYNN, B.A., seconded the proposal, and argued that French and German should be taught to schoolboys, especially the latter language, as Germans took the lead in most departments of modern science.

Dr. A. E. SANSOM said it was perhaps doubtful if there would even be a Matriculation Examination in the reformed University. It had been stated that the change to science in the new regulations originated with the medical graduates, but all medical teachers desired that their students should have general culture, which was impossible without a knowledge of language. It would be lamentable if French and German dropped out of the curriculum of a student graduating in any faculty.

The resolution was carried *nem. con.*

Mr. R. W. HINTON, B.A., next moved a resolution which, after certain modifications, stood as follows:

> That the examination in General Elementary Science should be restricted to the first part of the subject, and comprised in one paper; the second part to be made optional with the other sciences, and a third language to form a separate and obligatory section taking its place.

Mr. W. T. LYNN, B.A., seconded the proposal.

Mrs. S. BRYANT, D.Sc., remarked that science teaching was very good for education in schools, but not a good subject for examination by papers.

Dr. S. P. THOMPSON stated that of more than 1,400 candidates who were in for the recent matriculation examination not 20 took German, so rapidly were these new regulations having a disastrous effect. Latin was by far the most difficult subject of the examination, but it was not the one that plucked most candidates, because it was taught for so many years before the examination, whereas many candidates studied mechanics or chemistry for six months only. The matriculation examination was originally intended solely for non-collegiate students; now it was imposed on all, collegiate and non-collegiate alike. It was a good leaving-school examination for boys or girls of 16 or 17, but for persons of 22 or 23 or more it could not be a good examination. More subjects should be voluntary, and German should be substituted for Latin.

Mr. Cotton said that it was possible to "cram" a science in a quarter the time that it took to "cram" Latin. But the whole constitution of society must be altered before a man could be considered to be educated who had not a knowledge of Latin.

Dr. Hart proposed:

That the House pass to the next resolution on the paper.

This proposal was seconded and put to the meeting, but was lost by the votes of 22 against 21.

Dr. S. P. Thompson proposed as an amendment:

That, in place of the second clause of the original motion, the following words should be substituted: "And that one science and one language from the present optional groups be made obligatory."

The amendment was rejected by 34 to 31 votes.

Mr. G. Eastes, M.B., proposed that, as there was considerable difference of opinion on the subject-matter of the resolution, it should be referred to the Standing Committee for consideration and report.

Dr. A. E. Sansom seconded the proposal, which was carried *nem. con.*

A resolution moved by Mr. G. Armitage-Smith, M.A., and seconded by Mrs. Sophia Bryant, D.Sc., expressing dissatisfaction with the recent changes in the final examination for the degree of B.A., was referred to the Standing Committee.

As a quorum was not present, the meeting forthwith adjourned.

CONJOINT BOARD IN ENGLAND.

The following gentlemen have passed the Second Examination of the Board in the subjects indicated:

Anatomy and Physiology.—R. T. Edwards, University College, Liverpool; and London Hospital; A. D. Spalding and R. Burgess, London Hospital; G. W. Greene and R. H. C. O. Wisdom, Cambridge University and London Hospital; J. N. Parrott, H. E. Clarke, and G. Bettinson, St. Mary's Hospital: F. D. S. Jackson, A. W. Soper, J. F. Douse, and H. W. Brown, Guy's Hospital; H. L. Willcox, King's College, London; J. Walters, University College, Cardiff, and King's College, London; H. R. Dutton and G. P. Duprey, Middlesex Hospital; E. T. Holland, St. Thomas's Hospital; N. H. Mummery, University College, London; A. G. H. Michel, Charing Cross Hospital; S. N. Crowther, Westminster Hospital; H. Smale, J. G. French, and C. Ryley, St. Mary's Hospital; H. W. Pank and R. C. Emslie, St. Bartholomew's Hospital; A. F. Van Dyk, St. Bartholomew's Hospital and Mr. Cooke's School of Anatomy and Physiology; R. J. Morris, Queen's College, Cork, and St. Bartholomew's Hospital; S. M. Banham, H. M. Prins, F. A. Edmonds, University College, London; W. H. E. Stuart, Cambridge University and St. Thomas's Hospital; A. A. F. Clarke, St. Thomas's Hospital; A. Mavrogordato, St. Thomas's Hospital and Oxford University; D. Morrow, Queen College, Belfast, and Middlesex Hospital; F. L. Henderson, Cambridge University and Middlesex Hospital; H. P. Croly and E. W. Grogono, London Hospital; M. Coplans and C. E. Gaitskill, Guy's Hospital; I. J. Roche, Charing Cross Hospital; I. McW. Bourke, St. George's Hospital.

Physiology only.—J. Sharples, Cambridge University and St. Mary's Hospital; J. Micklethwaite, Firth College, Sheffield, and Mr. Cooke's School of Anatomy and Physiology; W. R. Elliott, Cambridge University and Mr. Cooke's School of Anatomy and Physiology.

Twenty-eight gentlemen were referred back to their professional studies for three months in both subjects and 1 in Anatomy only.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

Barker Anatomical Prizes for 1899.—A prize of £21 is offered for competition, and is open to any student whose name is on the anatomical class list of any school in the United Kingdom. The preparations entered must be placed in charge of the curator, from whom all particulars can be obtained, before June 1st, 1899. The prize is offered for dissections to illustrate the anatomy of the larynx. The preparation must be sent to the Curator of the Museums, Royal College of Surgeons. The dissections are to be mounted in vessels fitted with glass covers, but the covers must not be sealed down. Earthenware basins and plaster-of-paris settings are not compulsory if the specimens can be better displayed and preserved by other means. Those dissections for which prizes are awarded become the property of the College. Those competitors who enter dissections for which prizes are not awarded, but which show sufficient merit, may be refunded such amount of the cost of production as the examiners deem fit. The cost and risks of transport must be borne by the student. The College will not be responsible for any damage the preparations may sustain; but those of unsuccessful competitors residing at a distance will be carefully repacked and handed to the carriers for delivery at such address as may be specified by the student.

MEDICAL NEWS.

Dr. Robert Barnes and Mr. Lawson Tait have been elected Honorary Presidents of the Gynæcological Congress which is to meet at Amsterdam in August.

Bucknall Hospital for Infectious Diseases.—The additions which the Hanley, Stoke, and Fenton Joint Hospital Board, Staffordshire, have made in their infectious diseases hospital at Bucknall have recently been opened. The buildings, which are of one storey, consist of several pavilions, an isolation block, an administration block, and a discharging block, all built in keeping with the requirements of the present time, and having appliances of the most modern description. The site of each building has been concreted over to ensure dryness under the floors. The accommodation provided by the addition is for 28 beds, and the total cost is approximately £7,000.

Congress of French Neurologists.—The tenth annual Congress of French Alienists and Neurologists will be held this year at Marseilles under the presidency of Dr. Doutrebente, Medical Superintendent of the Asylum of Blois. The opening meeting will take place on April 4th. The following questions are proposed for discussion: *Mental Pathology:* Systematic Secondary Deliriums (to be introduced by Dr. Anglade, of the Brapueville Asylum). *Nervous Pathology:* Polyneuritic Psychoses (to be introduced by Dr. Dutil of Nice). *Legal Medicine:* Lunatics not recognised as such and Punished (to be introduced by Dr. Taty).

The Medical Profession in Hungary.—According to official statistics recently published the number of medical practitioners in Hungary has been steadily increasing during the last few years. In 1892 there were 4,047; in 1893, 4,174; in 1894, 4,280; in 1895, 4,424; in 1896, 4,657; in 1897, 4,858. As regards the proportion of practitioners to population it is largest in Buda-Pesth, where it is 23 per 10,000 inhabitants, and lowest in Hodmezovasarhely, where it is 3.2. Of the whole number of practitioners in Hungary, 2,154, or 44.3 per cent., hold public appointments. It may be added that there are in Hungary 8,580 midwives holding regular diplomas, being an increase of 391 as compared with last year. The number of hospitals and asylums is 359, being 10 more than in 1896. The number of patients in these establishments in 1897 was 189,675. The number of vaccinations performed last year was 540,037, and of revaccinations 499,255.

Inebriety in Belgium.—M. le Jeune, a member of the Belgian Government, has introduced in the Senate his long-promised Bill for the diminution of inebriety. The principle of the measure is gradual reduction of the number of places for the sale of alcoholic liquors. Only those cabarets open on November 8th, which were licensed when the Commune allowed 1 to every 30 inhabitants, will be interfered with. The maximum number of cabarets will be 1 to 150 inhabitants in communes of under 10,000; 1 to 200 in from 10,000 to 20,000; 1 to 250 in from 20,000 to 50,000; and 1 to 300 where the population is over 50,000. By the provisions of the Bill, the cabarets in Brussels would be reduced to one-tenth of the present number—that is, to 700; and the sale of absinthe would be entirely prohibited.

Anthrax in a Woolsorter.—At an inquest held at Denholme, before Mr. J. E. Hill, deputy coroner, on December 14th, 1898, into the cause of death of a woolsorter, some serious admissions were made. The man had been engaged in sorting Thibet and Persian wools, and died of anthrax, according to the evidence of Dr. Jackson, of Denholme, who made the *post-mortem* examination in the presence of Dr. Dobie and Dr. Nicholson Dobie, of Keighley. From other evidence given it appeared that the regulations to be observed in woolsorting houses had been neglected, both with regard to the disinfection of the bales of wool previous to the sorting, and also in the sorting itself, which should take place under a downward draught of air. The non-observance of these regulations had been due to neglect on the part of the masters or their representative the foreman. On the other hand, there appeared to have been a disinclination on the part of the woolsorters to take advantage of the precautions secured to them by law. The jury returned the following verdict: "Death was caused by anthrax, and the jury are of opinion that such anthrax has been caused by non-observance of the regulations prescribed by law for the prevention of woolsorters' disease."

Society for Relief of Widows and Orphans of Medical Men.—The directors of this Society held a quarterly court on January 11th, Dr. Stamford Felce, Vice-President, in the chair. One new member was elected, and the deaths of seven reported. Among the deaths the directors had to regret those of three old and valued members, namely, Sir William Jenner (Vice-President), Dr. Hare, and Dr. Munk. One application from a widow was received, and a grant at the rate of £50 per annum made. It was resolved to distribute the sum of £1,216 10s. among the 50 widows, 10 orphans, and the 6 recipients from the Copeland Fund. The expenses of the quarter amounted to £77. A Christmas present of £551 had been given to the widows and orphans on December 18th, 1898, and a special grant of £20 had been made to a widow suffering from malignant disease.

HARVEIAN SOCIETY OF LONDON.—Balloting List for 1899.—The following is a list of names of gentlemen proposed by the Council as officers of the Society for the year 1899, and who were balloted for at the annual general meeting on January 19th :—*President:* *Henry Juler, F.R.C.S. *Vice-Presidents:* Dr. Ernest Gee, *Dr. William Gow, *Mr. Peyton Beale, *Dr. Winslow Hall. *Treasurer:* Mr. Edmund Roughton. *Honorary Secretaries:* Dr. Leonard Guthrie and *Mr. Raymond Johnson. *Council:* *Dr. Goodhart, Dr. Cock, Mr. Alban Doran, Mr. Keetley, Dr. Milsom, Dr. Nix, *Mr. Atwood Thorne, *Mr. Jackson Clarke, *Dr. H. A. Caley, *Dr. Hubert Phillips, *Dr. G. A. Sutherland, and *Mr. Sefton Sewill. An asterisk (*) is prefixed to the names of those gentlemen who did not hold the same office the preceding year.

MEDICAL VACANCIES.

The following vacancies are announced :—

CANCER HOSPITAL, Fulham Road, S.W.—House-Surgeon. Appointment for six months. Salary at the rate of £50 per annum, with board and residence. Applications to the Secretary by February 4th.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Pathologist. Salary, 100 guineas per annum. Applications to the Secretary by February 3rd.

FINSBURY DISPENSARY, Brewer Street, Goswell Road, E.C.—Resident Medical Officer. Salary, £120 per annum, with furnished residence, attendance, coals, and gas. Applications to the Secretary by January 26th.

HASTINGS, ST. LEONARDS, AND EAST SUSSEX HOSPITAL.—House-Surgeon. Salary, £75 per annum, with board, residence, and laundry expenses. Applications to the Secretary by February 1st.

JAFFRAY BRANCH OF THE GENERAL HOSPITAL, Birmingham, Gravelly Hill, near Birmingham.—Resident Medical and Surgical Officer. Salary, £150 per annum, with board, residence, and washing. Applications to the House Governor, General Hospital, Birmingham, by January 28th.

KILBURN PROVIDENT MEDICAL INSTITUTE.—Vacancy on the Medical Staff. Applications to the Secretary, 7, Cavendish Road, Brondesbury, N.W., by January 28th.

LINCOLN LUNATIC HOSPITAL.—Locum Tenems for the Assistant Medical Officer for five weeks. Salary, 3 guineas a week. Applications to Dr. Russell, The Lawn, Lincoln.

LIVERPOOL DISPENSARIES.—Two Surgeons. Salary, £80 for first year, £90 per annum afterwards, with apartments, board, and attendance. Applications to the Secretary, 34, Moorfields Liverpool, by January 24th.

LIVERPOOL: TOWNSHIP OF TOXTETH PARK.—Senior Assistant Medical Officer of the Workhouse and Infirmary. Salary, £100 per annum, with board, washing, and apartments. Applications, marked "Assistant Medical Officer," to the Clerk of the Guardians, 15, High Park Street, Liverpool, by February 1st.

LONDON LOCK HOSPITAL, 91, Dean Street, Soho, W.—Anæsthetist to the Male Hospital. Applications to the Secretary, Harrow Road, W., by February 4th.

MANCHESTER CLINICAL HOSPITAL FOR WOMEN AND CHILDREN.—Honorary Pathologist. Applications to the Secretary, 38, Barton Arcade, Manchester, by January 31st.

NORTHAMPTON GENERAL INFIRMARY.—Assistant House-Surgeon, unmarried, and not under 23 years of age. Salary, £100 per annum, with furnished apartments, board, attendance, and washing. Applications to the Secretary by January 26th.

NOTTINGHAM GENERAL HOSPITAL.—House-Physician. Salary, £100 per annum, rising to £120. Applications to the Secretary by January 31st.

PLAISTOW: ST. MARY'S CHILDREN'S HOSPITAL.—Assistant Resident Medical Officer. Appointment for six months. Salary at the rate of £50 per annum, with board, lodging, and washing. Applications to the Secretary by February 7th.

SEAMEN'S HOSPITAL SOCIETY, Greenwich, S.E.—House-Physician for Dreadnought Hospital. Salary, £75 per annum, with board and residence. Surgeon for Dispensary, East India Dock Road. Salary, £66 per annum. Applications to the Secretary by January 23rd.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—Assistant House-Surgeon. Salary, £30 per annum, with board, lodging, and washing. Applications to the House-Surgeon by February 3rd.

SUNDERLAND, MONKWEARMOUTH, AND SOUTHWICK HOSPITAL.—House-Surgeon, unmarried. Salary, £48 per annum, with board, residence, and, washing. Applications to the Honorary Secretary by January 30th.

WAKEFIELD: CLAYTON HOSPITAL AND WAKEFIELD GENERAL DISPENSARY.—House-Surgeon, unmarried. Salary, £90 per annum, with board, lodging, and washing. Applications to the Honorary Secretary by January 31st.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea, S.W.—Ophthalmic Surgeon. Applications to the Secretary by January 28th.

WESTERN GENERAL DISPENSARY, Marylebone Road.—Second Honorary Ophthalmic Surgeon. Applications to the Honorary Secretary by January 25th.

MEDICAL APPOINTMENTS.

BENNETT, Harry C., M.B., M.R.C.S., L.R.C.P., appointed House-Physician to the Sunderland Infirmary.

BONNIN, James A., M.B., Ch.B.Adelaide, F.R.C.S.Eng., appointed House-Physician to the East London Hospital for Children, *vice* Mr. Elwin H. T. Nash, M.R.C.S., L.R.C.P.

BROWNE, James A., L.R.C.S.I., appointed Assistant Ophthalmic Surgeon to the Belfast Royal Hospital.

CHAMPION, S. Gurney, M.B., C.M., appointed Out-door Surgeon to the Leith Hospital.

CORY, C. G., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Seventh District of the Newmarket Union.

CROOKS, L. A., M.B., C.M., appointed House-Surgeon to the Leith Hospital.

DAWRAY, A. H. Payan, M.R.C.S.Eng., L.R.C.P.Lond., appointed Anæsthetist to the Royal Orthopædic Hospital.

FENWICK, Collingwood, M.R.C.S., L.R.C.P., L.S.A., appointed Surgeon to the South Metropolitan Gas Company, *vice* John Barrie, M.D.Edin., resigned.

FERGUS, J., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Appleton Wiske District of the Northallerton Union.

FOULERTON, Alexander G. R., F.R.C.S.Eng., D.P.H.Camb., F.C.S., appointed Bacteriologist to the Middlesex Hospital.

GAITSKILL-CHURTON, J., M.R.C.S., L.R.C.P., appointed Junior House-Surgeon to the Stanley Hospital, Liverpool.

GOODALL, Alex., M.B., Ch.B., appointed Assistant House-Surgeon to the Leith Hospital.

GREENWOOD, Frank R., M.R.C.S.Eng., L.R.C.P.Lond., appointed Resident Surgical Officer at Birmingham and Midland Free Hospital for Sick Children.

HAMER, E. S., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Tyldesley District of the Leigh Union.

HAWTHORNE, C. O., M.B.Glasg., appointed Medical Superintendent of the Medical Graduates' College and Polyclinic, Chenies Street.

HENDERSON, R. G., M.A., M.B., Ch.B.Aberd., appointed Senior House-Surgeon to the Stanley Hospital, Liverpool, *vice* G. B. Robinson, resigned.

HIRST, W. J., M.B.Lond., appointed House-Surgeon to the Hospital and Dispensary, Newark-upon-Trent,

JAMIESON, J. Boyd, M.B., C.M., appointed House-Physician to the Leith Hospital.

JOHNSTONE, J. E. St. George, M.B., appointed Medical Officer for the Eldersfield District of the Upton-upon-Severn Union, *vice* C. St. S. R. Mason, M.D., resigned.

KIRBY, Samuel John James, M.D.Brux., L.R.C.P., L.M.Edin., M.R.C.S.Eng., and L.S.A. Lond., appointed Medical Officer of Health to the Hoxne Rural District, and Medical Officer and Public Vaccinator of the Fressingfield District of the Hoxne Union.

MOORE, F. H., L.R.C.P., L.R.C.S.Irel., appointed Medical Officer for the Sibsley District of the Boston Union.

PRIECE, James E., M.R.C.S.Eng., L.S.A., appointed Medical Officer and Public Vaccinator to the Bewley District of the King's Norton Union, *vice* W. Smith, M.R.C.S.Eng., deceased.

PERROTT, C. J., L.R.C.P., L.R.C.S.Irel., appointed Medical Officer for the Oldland District of the Keynsham Union.

THOMAS, R. D., L.R.C.P., L.R.C.S., appointed Medical Officer for the Guilsfield District of the Llanfyllin Union.

YOUNG, R. A., M.D., B.Sc.Lond., M.R.C.P., appointed Medical Registrar to the Middlesex Hospital.

ERRATUM.—In the notice of the appointment of Medical Officer for the North District of the Devonport Union, Mr. A. F. C. Smith was in error stated to have been appointed, whereas Mr. Henry Gard, L.R.C.P., L.R.C.S.Edin., was appointed.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 8.30 P.M.—Mr. Cuthbert Wallace: Acute Suppurative Peritonitis. Mr. P. J. Freyer: Two Recent Cases of Impacted Calculus of the Ureter successfully operated upon.

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Dr. Abraham: Practical Points in the Examination and Treatment of Diseases of the Skin (Lecture I).

TUESDAY.

Royal Medical and Chirurgical Society, 8.30 P.M.—Mr. R. Clement Lucas: Gonococcus Joint Disease in Infants secondary to Purulent Ophthalmia, with Twenty-three Cases.

West End Hospital for Diseases of the Nervous System, 73, Welbeck Street, W., 4 P.M.—Dr. T. D. Savill: Cases of Syphilitic Disease of the Nervous System.

WEDNESDAY.

Dermatological Society of Great Britain and Ireland, 20, Hanover Square, W., 5 P.M.—The President (Dr. H. Radcliffe Crocker): Recurrent Scarlatiniform Desquamative Erythema. Informal Exhibition of Cases at 4.30 P.M.

Evelina Hospital, S.E., 4.30 P.M.—Mr. F. S. Eve: Clinical Demonstration on Surgical Cases from the Wards. (Post-graduate Course.)

THURSDAY.

Ophthalmological Society of the United Kingdom.—Card Specimens at 8 P.M. Papers at 8.30 P.M.—Mr. H. Grimsdale: Rapid Changes in Refraction in Connection with Diabetes. Mr. Mackenzie Davidson: On the Stereoscopic Examination of Skiagraphs of Foreign Bodies in the Eye and Orbit. Mr. C. D. Marshall: Epithelial Implantation Cysts of the Iris.

Charing Cross Hospital, Post-Graduate Course, 4 P.M.—Dr. Abercrombie: Demonstration of Medical Cases.

London Temperance Hospital, 2 P.M.—Dr. Soltau Fenwick: Clinical and Pathological Demonstrations to Senior Students.

British Balneological and Climatological Society, 20, Hanover Square, W., 8.30 P.M.—Dr. H. Evelyn Crook (Margate): The Climate of Margate in Relation to Disease. Dr. Brodie Cruickshank (Nairn): Notes on Nairn—chiefly Climatic. Dr. Wm. Bain (Harrogate): The Action of Certain Mineral Waters on the Quadriurate and Biurate of Soda.

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Dr. Abraham: Practical Points in the Examination and Treatment of Diseases of the Skin (Lecture II).

FRIDAY.

Clinical Society of London, 8.30 P.M.—Mr. Jonathan Hutchinson, jun.: Three Cases of Abdominal Section: (a) For Ruptured Ovarian Cyst; (b) For Perforation of the Urinary Bladder; (c) For Traumatic Intraperitoneal Hæmorrhage. Dr. Abrahams: Rheumatic Tonsillitis. Mr. Rutherford Morison (introduced by Mr. Lockwood): Patients showing Results of Stomach Surgery, with Description of the Operations Performed. Mr. W. G. Spencer: Tuberculous Cavities in the Lungs giving rise to Gaseous Metastatic Abscesses.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to insure insertion in the current issue.

BIRTHS.

FEGAN.—On January 16th, at Old Charton, Kent., the wife of R. Ardra Fegan, M.R.C.S., L.R.C.P., L.S.A., of a son.

THOMPSON.—On January 9th, at Rathlyn, Malone, Belfast, the wife of Professor W. H. Thompson, of a daughter.

MARRIAGES.

HUCKLE—FARNFIELD.—On January 12th, at St. Matthew's, Brixton, by the Rev. W. D. Springett, D.D., Vicar, A. H. Headley Huckle, L.R.C.P.Lond., M.R.C.S. and L.D.S.Eng., of 35, Wellington Square, Hastings, to Grace Shore, only daughter of the late Dr. Walter E. Farnfield, of "Fir Grove," Brixton Road.

WEBSTER—KITCHEN.—On January 14th, at St. Gabriel's Church, Willesden Green, N.W., Percy Lawrance Webster, L.R.C.P., M.R.C.S., L.D.S., youngest son of the late Richard Webster, F.R.A.S., to Phœbe, youngest daughter of James Kitchen, of Cricklewood, N.W.

DEATHS.

EVANS.—On the 8th inst., at his residence, Tanyronen, Portmadoc, Henry Evans, M.R.C.S.Eng., L.R.C.P.Edin., and L.S.A., aged 48 years.

FARR.—On January 11th, 1809, at Penrhyn Lodge, Cambridge Park, Twickenham, George Frederick Farr, M.R.C.S., L.R.C.P.Ed., of Kennington, aged 66.

HARTE.—On January 15th, at 32, Eaton Rise, Ealing, Deputy-Inspector-General Mark A. Harte, R.N., aged 59.

JONES.—On January 11th, 1809, at Bryn-y-Don, Garth, Bangor, William Francis Jones M.R.C.S.Lond., L.R.C.P.Edin., and L.M., and L.A.H.Dublin, of Bulkeley Square, Menai Bridge, Anglesey.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

Cancer, Brompton (Free). *Attendances.*—Daily, 2. *Operations.*—Tu. W. F., 2.

Central London Ophthalmic. *Attendances.*—Daily, 1. *Operations.*—Daily.

Central London Throat, Nose, and Ear. *Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—I.p., Tu., 2.30; o.p., F., 2.

Charing Cross. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30: Skin, M. Th., 1.45; Dental, M., 9: Throat and Ear, F., 9.30. *Operations.*—Th. F. S., 3.

Chelsea Hospital for Women. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

City Orthopædic. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.

East London Hospital for Children. *Operations.*—M. W. Th. F., 2.

Great Northern Central. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F., 2.30; Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

Guy's. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 2. *Operations.*—Tu. F., 1.30; (Ophthalmic), M., 1.30; Th., 2.

Hospital for Women, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

King's College. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, daily, 2; o.p., daily, 1.30; Eye, M. W. Th., 1.30; Ear, Th., 2.30; Throat, M., 1.30; F., 2; Dental, M. Th., 10; Skin, W., 1.30. *Operations.*—W. Th. F., 2.

London. *Attendances.*—Medical, daily, i.p., 2; o.p., 1.30; Surgical, daily, 1.30 and 2; Obstetric, M. Tu. Th. F., 2; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, W., 9; Skin, Th., 9; Dental, Tu., 9. *Operations.*—Daily, 2.

London Temperance. *Attendances.*—Medical, M. Tu. W. Th. F., 1.30; Surgical, M. Th., 1.30. *Operations.*—M. Th., 4.30.

London Throat, Great Portland Street. *Attendances.*—Daily, 2; Tu. F., 6. *Operations.*—Daily, 2.

Metropolitan. *Attendances.*—Medical and Surgical, daily, 2; S., 9; Obstetric, W., 2; Eye, W., 2; Throat and Ear, Th., 2; Dental, Tu. Th. S., 9. *Operations.*—Tu. W., 2.30; Th., 4.

Middlesex. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., 1.30; o.p., M., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu. F., 9; Skin, Tu., 4; Th., 9.30; Dental, M. F., 9.30; W., 9. *Operations.*—Daily, 1.30.

National Orthopædic. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

New Hospital for Women. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30. *Operations.*—Tu. F., 9.

North-West London. *Attendances.*—Medical, daily, exc. S., 2; S., 10; Surgical, daily, exc. W., 2; W., 10; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

Royal Ear, Frith Street. *Attendances.*—M. W. F., 3; Tu. F., 9.30 and 7.30. *Operations.*—Tu., 3.

Royal Eye, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

Royal Free. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, W., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

Royal London Ophthalmic. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

Royal Orthopædic. *Attendances.*—Daily, 2. *Operations.*—M., 2.

Royal Westminster Ophthalmic. *Attendances.*—Daily, 1. *Operations.*—Daily, 2.

St. Bartholomew's. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. W. F., 2; o.p., W. S., 9; Eye, M. Tu. W. Th. S., 2; o.p., M. Th., 9; W. S., 2.30; Ear, Tu. F. 2; Skin, Tu., 9; Larynx, Tu. F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9; Electrical, M. Tu. Th. F., 1.30. *Operations.*—Daily, 1.30; (Ophthalmic), Tu. F. 2; Abdominal Section for Ovariotomy, F., 2.

St. George's. *Attendances.*—Medical and Surgical, daily; i.p., 1; o.p., 12; Obstetric, i.p., Tu. F. 1.45; o.p., M. Tu., 2.30; Eye, W. S., 1.30; Ear, Tu., 2; Skin, W., 2.45; Throat, F., 2; Orthopædic, F., 12; Dental, M. Tu. F., S., 12. *Operations.*—Daily, 1; Ophthalmic, M., 1; Dental, Th., 9.

St. Mark's. *Attendances.*—Fistula and Diseases of the Rectum, males, S., 2; females, W., 9.30. *Operations.*—M., 9; Tu., 2.30.

St. Mary's. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 12.45; Obstetric, Tu., F., 1.45; o.p., M. Th., 1; Eye, Tu. F., 9; Ear, M. Th., 9; Throat, Tu. F., 3; Skin, M. Th., 9; Dental, W. S., 9; Electro-Therapeutics, M. Th., 2.30; Children's Medical, Tu. F., 9. *Operations.*—M., 2.30; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

St. Peter's. *Attendances.*—M., 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

St. Thomas's. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F. 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Th., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. F., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

Samaritan Free for Women and Children. *Attendances.*—Daily, 1.30. *Operations.*—Gynæcological, M., 2; W., 2.30.

Throat, Golden Square. *Attendances.*—Daily, 1.30; Tu. F., 6.30. *Operations.*—Daily, exc. M., 10.

University College. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. F., 1.30; Eye, M. W., 1.30; Ear, M. Th., 9; Skin, Tu. F., 2; Throat, M. Th., 9; Dental, Tu. F., 9.30. *Operations.*—Tu. W. Th., 2.

West London. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th., 2; Ear, Tu., 2; S., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, M. Th., 2; Skin, M. F., 2; Throat and Nose, Tu., 2; S., 10. *Operations.*—Daily, about 2.30; F., 10.

Westminster. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, Tu. F., 9.30; Ear, Tu., 1.30; Skin, W., 1.30; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications for the Current Week's Journal should reach the Office not Later than Midday on Wednesday. Telegrams can be Received on Thursday Morning.

Communications respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the Journal, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and **LETTERS** *forwarded for publication are understood to be offered to the* British Medical Journal *alone, unless the contrary be stated.*

Authors desiring reprints of their articles published in the British Medical Journal are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

Correspondents who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

Correspondents not answered are requested to look at the Notices to Correspondents of the following week.

Manuscripts forwarded to the Office of this Journal cannot under any Circumstances be Returned.

In order to avoid delay, it is particularly requested that ALL letters on the editorial business of the Journal be addressed to the Editor at the Office of the Journal, and not at his private house.

Telegraphic Address.—The telegraphic address of the EDITOR of the British Medical Journal is *Aitiology, London.* The telegraphic address of the MANAGER of the British Medical Journal is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are directed will be found under their respective headings.*

QUERIES.

Member B.M.A. asks where he can obtain a back set or sets of examination papers for the Licence of the Royal College of Physicians, Ireland.

Case Books for Anæsthetists.

J. P. B. asks whether books for recording cases of anæsthesia, giving space to note name of patient, anæsthetic employed, nature of operation, time under, etc., are obtainable.

Isolation after Infectious Disease.

E. G. draws our attention to an apparent ambiguity in a table in a well-known medical diary. He considers the statements as to the period of isolation required after suffering from infectious disease rather vague as to the date from which the prescribed periods of isolation should be counted. He asks for some definite statement as to "when the period of isolation should commence."

⁂ There can, we think, be no question that the period of isolation in any infectious case should begin with the earliest symptoms. It is therefore not unusual for those courageous people who compile tables of periods of infectivity to count such periods from the commencement of the illness. As this is not always easily ascertained, the date of the eruption is sometimes substituted. All dogmatic statements as to duration of infectivity must be accepted with a good many grains of salt. In diphtheria, for instance, it is said that the Klebs-Loeffler bacillus has been detected in the throat many weeks after the patient had apparently recovered. It is, of course, possible that the bacterium may in such circumstances be of a less virulent nature, but few medical men, knowing of its existence, would venture to declare such a patient free from infectivity, even if albuminuria and all throat symptoms had disappeared for "three weeks." Klein has found the streptococcus scarlatinæ (strept. conglomeratus, Kurth, which he regards as the efficient cause of scarlet fever) in a child with a normal-looking throat in the seventh month from the date of the attack. He has also found this streptococcus in one case in the ninth, in another the sixth, week, although in both these patients he had failed to discover it on examining the throat, in the former case a week, in the latter a fortnight earlier.[1] These patients were all, however, still inmates of an infectious hospital, and it is of course possible that the cocci in their throats may have been obtained from the air of the wards.

ANSWERS.

Scarlet Fever has omitted to verify his communication by his name.

X. Y.—Our correspondent will, we think, obtain all the information which he requires if he will communicate with the Secretary of the Anglo-American Vienna Medical Association, 12, Landesgerichtstrasse, Vienna.

V. A. C.—It is customary in such cases to give the monthly nurse half the fee; for although she has been disappointed of her case, yet she has been free to do any other work. It seems impossible that she has lost three cases, or that she could have accepted more than one.

A. M. S.—In addition to the County Asylums there are in Sussex the Ticehurst Asylum; St. George's Retreat, Burgess Hill; Periteau House, Winchelsea; and Ashbrook Hall, Hollington. In Surrey there are Chalk Pit House, Sutton; and the Asylum, Church Street, Epsom.

A. D.—The difficulty in referring such a case to the Council lies in obtaining the name of the practitioner, as it does not appear to be given in any part of the "Medical" column in question; and neither the editor nor the proprietor of the newspaper would be likely to facilitate any inquiries made concerning such a matter.

M.—There is nothing contrary to medical etiquette in a medical man attending his own wife in her confinement, and it is often done. We believe, however, that it is wiser for a medical man not to attend any near member of his own family when other competent medical assistance is available.

Xerxes.—Charles Darwin was not a member of the medical profession. He began to study for it at Edinburgh, but could not overcome his disgust at the dissecting room. Huxley was regularly educated for the profession at Charing Cross Hospital, and served for seven years as a surgeon in the Royal Navy. He had no medical degree, and strongly objected to being called "Dr." He was a Fellow of the Royal College of Surgeons by election.

L. S. D.—Oleate of mercury (10 per cent.) may be used for inunction in syphilis in quantities of from 15 to 30 drops at a time, but being only a preparation of the yellow oxide it is inferior to the "unguentum cinereum" containing metallic mercury. This consists of one part of mercury, one part of lanoline, and half a part of olive oil, by weight. Half a drachm of this should be used at first, and increased to a drachm if no symptoms of mercurialism appear.

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[1] Report of Medical Officer to the Local Government Board, 1897-8 Appendix B. No. 5.

Government Inspectorships.

Smijin.—Appointments to inspectorships under the Local Government Board are, we believe, in the gift of the President, to whom all applications should be addressed. The salary of a medical inspector is £500, with rises to £800. We do not know of any vacancies in the Board's inspectorate.

Liquor Potassii Permanganatis.

We referred a communication from a correspondent with reference to an alleged similarity between the well-known Condy's fluid and solution of potassium permanganate to a pharmaceutical chemist of standing, who writes to us as follows: "Condy's fluid contains (green) manganate and (red) permanganate of alkalies and other salts, the nature of which does not appear to have been accurately determined. The liq. potass. permang. is a good imitation of the red fluid."

Obstinate Constipation.

In reply to "M.D.," who asked a question in the British Medical Journal of December 24th, 1898, p. 1919, **Hove** writes: Is the patient a smoker? If so, let him give up the habit for a month; this will probably, in his case, relieve the constipation. Let him eat sparingly of potatoes, avoid bread, and take toast. Let him drink little, at the end of meals, and never before food. Let him take a saltspoonful of potassium bicarbonate in water occasionally, and an early walk before breakfast. Horse exercise might be beneficial. Strychnine in small doses might be serviceable, and a euonymin pill occasionally, but the diet is of much importance.

W. H. H. (Clapton) writes, in answer to the same question: For flatulence, palatinoids of creosote, mj t. d. s. For constipation, an aperient pill, containing half a grain of calomel, two or three times a week, followed by apenta water in the morning. Diet should be simple but nutritious—beef steaks or chops, fresh vegetables, milk puddings, and whole meal bread. Figs, raisins, and prunes stewed together, and taken two or three times a day, will be found beneficial.

Advertisements in Local Newspapers.

Fair Play.—Our correspondent complains of a notice in a local paper stating that a certain medical practitioner has resumed medical practice at a particular address, and asks whether the General Medical Council would consider this infamous conduct in a professional sense. Without venturing to determine what might be the judgment of the General Medical Council we would point out that a clear distinction must be drawn between a notice of the kind quoted and persistent and regular advertising in the ordinary sense. We have no doubt that the General Medical Council would take notice of such an advertisement as that to which our correspondent draws our attention if it were to be continued.

We may refer another correspondent who asks a somewhat similar question to the above answer.

Treatment of Chronic Diarrhœa.

Dr. J. F. D'Abreu (Handsworth) writes: In answer to "W. M.," I had a similar case of chronic diarrhœa. After trying all the drugs he mentions with little benefit, I gave the following mixture: Glycerine, ʒij; bismuth. carb, grs. xx; liq. morphinæ, ʒss; sodæ bic., grs. xx; tr. card. co., ʒss.; aquam ad ℥ss, to be taken half an hour before meals. The result was very gratifying, the patient being quite cured of the pain and diarrhœa.

Dr. Frederic C. Wood (Ripley, Derby) writes: In reply to "W. M.," the chronic diarrhœa arises from fermentation of the food, so let the diet consist of articles that do not readily undergo fermentation. Give the patient salol gr.x in powder every morning and evening for two months.

Member writes: I beg to suggest an explanation of the watery overflow from the bowels—that it has become a diversion from the function of the kidneys by use and wont. It might be as well to ascertain the daily amount of urine excreted, to see if it be much below the normal, and then to correct any decrease by diuretics, to restore the natural quantity. As for the arrestment of the intestinal flow, that might be corrected by opium pills, say 1 gr., taken at night, as indicated by the terms of the report of the case.

Mr. P. E. Miall (Bradford) writes: From experience in a somewhat similar case I recommend "W. M." to try gradual reduction of the quantity of both food and drink till the point is reached at which the digestive system is equal to the work required of it. The kind of food is of less consequence. Perhaps two light meals would be enough.

A Problem in Syphilis.

A correspondent sends us the following problem: A husband had syphilis fourteen years ago, and still has occasional mild symptoms. He has taken mercury and potassium iodide for the last eight years, but was not properly treated in the early stages. His wife, who appears to be healthy, is pregnant. The problem for solution is: "Will the mother and child escape the disease? and, if not, when should treatment be commenced, and in what form?" Unfortunately, our correspondent does not tell us the date of the marriage, but, presuming that the husband had reached the tertiary stage before marriage, the probability is that the wife will escape direct infection from him. As regards the child, the answer to the question is very doubtful, if the occasional symptoms in the father are really syphilitic. Moreover, we are not told whether this is a first pregnancy or not; but assuming that it is, and that the father still suffers from some form of syphilis, the chances are that the child will develop inherited syphilis. If this occurs, the best treatment is to spread about a drachm of the "unguentum cinereum," or blue ointment, on the child's flannel binder, enough mercury being absorbed in this way by the child's movements. The ointment should be washed off the next day, and reapplied every other day till all symptoms disappear. The next point to consider is whether the mother will require treatment, and whether she should suckle the child. The child should be suckled by the mother. The mother, on the other hand, according to Colles's law, acquires a considerable, although not absolute degree of immunity against syphilis derived from the child *in utero*, and is unlikely to contract the disease. Accepting this view it would follow that the mother does not need antisyphilitic treatment after the birth of her child. Another point to be considered is whether it is worth while to treat the mother during her pregnancy with the view of improving the chance of a healthy child being born. This procedure appears to be contraindicated for the following reasons: First, we are not certain that the child *in utero* is suffering from syphilis; secondly, the administration of mercury to the mother is detrimental to her health during pregnancy; thirdly, it is perhaps more likely to produce abortion than to have any beneficial effect on the child, even if syphilitic.

The Royal College of Physicians in Ireland and Medical Aid Associations.

Surgeon.—The resolution of the Royal College of Physicians in Ireland to which our correspondent no doubt refers was that published in the British Medical Journal of May 2nd, 1896, page 1114, as follows: "That the Royal College of Physicians in Ireland desire to express their disapproval of their Licentiates accepting office in medical aid associations as at present conducted in England, inasmuch as the independence of the physician is destroyed by the system, and the services of the physician are used so as to produce a profit for lay persons."

Books on the Education of the Deaf and Mentally Deficient Children.

B.P.B., India.—The following works deal with the subjects to which our correspondent refers:—(A) Books relating to the education of deaf children; (1) *Education of Deaf Mutes*, vol. i, Oral System and History, vol. ii, Sign System and History, by Thomas Arnold, 27, St. Paul's Road, Northampton (by whom it is supplied); (2) *Exercises in Articulation*, by Arthur Kinsey (London: W. H. Allen and Co.); (3) *Lessons for Deaf and Dumb Children*, two parts, by W. Van Praagh (London: Kegan Paul, Trench, Trübner and Co.); (4) *Deaf-Mutism*, by J. K. Love, M.D., and W. H. Addison, A.C.P. (Glasgow: J. Maclehose and Sons, 1896, 9s.). (B) Books relating to the education of mentally deficient children: (1) Articles on Idiots and Imbeciles in Hack Tuke's *Dictionary of Psychological Medicine* (London: J. and A. Churchill, 1892); (2) *Mentally Deficient Children: their Treatment and Training*, by Dr. G. E. Shuttleworth (London: H. K. Lewis, 1895, 4s.); (3) *Treatment and Education of Mentally Feeble Children*, by Dr. Fletcher Beach (London: J. and A. Churchill, 1895, 1s. 6d.); (4) *The Feeble-minded Child and Adult*, Charity Organisation Series (London: Swan Sonnenschein, 1895); (5) *Mental Affections of Children*, by Dr. W. W. Ireland (London: J. and A. Churchill, 1898, 14s.); (6) Papers on Hand and Eye, 1897-98, by Dr. Shuttleworth (London: Newman and Co.).

NOTES, LETTERS, Etc.

Syphilis in the Army.

We have received further letters on this subject, but on account of their length and the pressure of other matters on our space we are compelled to condense them.

Lieutenant-Colonel **Alexander** is a strong advocate of the inunction method, which he considers superior to any other. He remarks as to universal adoption of this method in the army that there are difficulties and obstacles in the way, but, he adds, "I am strongly of opinion that a central institution in the vicinity of a thermal spring would be a national benefit." He suggests that in England a treatment similar to that of Aix-la-Chapelle could be well carried out at Bath. He has tried the injections of "oleum cinereum," but considers it inferior to inunction in eradicating the disease and detrimental in allowing the soldier to go about his duties during the course of treatment.

Lieutenant-Colonel **Gormley** (Cape Town) does not consider the aggravated forms of syphilis met with in the troops in India to be due to inefficient treatment, but rather to the deteriorated state of health induced by the climate, and more especially to the presence of malaria in the system. Some of the worst cases of syphilis he has seen occurred in men saturated with malaria, and it appeared immaterial which disease was contracted first. He considers that in malarious countries special attention should be paid to constitutional treatment, and that antisyphilitic remedies only are useless. Whenever possible the patient should be first of all removed from the malarious district. He points out that the difficulty in treatment of syphilis in the army is the length of time necessary for a cure, and the difficulty of inducing soldiers to carry on the treatment when symptoms have disappeared. He thinks the intramuscular injection method carried out once a week a good way out of this difficulty, but doubts if the method is as good as its advocates maintain. As regards syphilis complicated with malaria, he strongly advocates the establishment of sanatoria in Cape Colony, where soldiers now invalided to England would improve much quicker than they do in England.

Dr. **Stretch Dowse** agrees with the remark of Surgeon-Colonel Myers in the British Medical Journal of December 17th, 1898, that the administration of mercury in primary syphilis is not so systematically adopted as it should be. Dr. Dowse is in favour of inunction as the best routine method of treatment, and considers it superior to either fumigation or intramuscular injection. As regards internal administration, he prefers the blue pill to the grey powder or the green iodide.

"**A Medical Officer in Bengal**" sends us a letter, the main points of which are as follows: He believes with Surgeon-Colonel Welch that the present excessive admission-rate is due rather to conditions inseparable from a residence in India or other tropical country than to defective treatment. This is shown by the reports of the Sanitary Commissioner and the army medical Blue Books. Defects in treatment exist, but are due to the conditions of army service. These include frequent movements of the troops and medical officers, rendering systematic treatment difficult; also the interference with discipline of prolonged attendance as an out-patient. The excessive severity of the disease in India since 1878 our correspondent attributes to the short-service system which was introduced in 1870. Since that date the proportion of men under 25 years of age with five years' Indian service has steadily increased and so have the admissions for syphilis. This system means a large proportion of unmarried men in the ranks. The abolition of the Indian cantonment regulations also corresponds very closely with the increase in venereal disease. The severity of syphilis, again, is influenced by climatic conditions and by association with other diseases

—such as malaria, dysentery, enteric fever, etc. Our correspondent does not think syphilis in India in itself any worse than in Europe, and regards the aggravated form of the disease in India as a combination of syphilis, malaria, and tropical debility, often increased by exposure and fatigue. Alcoholism also has a share in rendering the disease more intractable. As regards treatment, he believes that this is essentially the same in the army, whether at home and abroad, as that employed in civil practice, apart from the conditions referred to, and that it only differs because the methods adopted in civil practice have been found on trial to be unsuited to the conditions of military service.

GOLF TOURNAMENT.

A MEDICAL golf tournament has been arranged for this year on similar lines to that of 1898. Entries, with lowest handicap and subscription 5s., should be sent not later than February 6th to the Honorary Secretary, Mr. Rolf Creasy, Windlesham, Surrey.

TOTLAND BAY.

DR. JAMES BLACK NOBLE (London, E.C.) writes: Having recently derived much benefit from a visit to Totland Bay, in the Isle of Wight, will you allow me to draw the attention of my fellow members of the British Medical Association to this place as a winter health resort? It faces south-west, and is splendidly protected from east and north-east winds. In the winter months the prevailing winds are from the west and south-west, and, coming over the Atlantic, are most exhilarating, and not cold. The country around is very beautiful.

CONSUMPTIVE PATIENTS IN CAPE COLONY.

MR. F. E. ST. LEGER (Chairman, Board of Managers, Somerset Hospital, Cape Town) writes: The attention of the Board of Managers of the Somerset Hospital has been repeatedly directed to the fact that a large number of consumptives come to this country in advanced stages of the disease, unable to work and totally unprovided with the means of subsistence.

The Board therefore feel it incumbent upon them, in the interests of the patients themselves, as well as of the public at large, to draw the attention of the medical profession and others to this growing evil. From a climatic point of view this country possesses exceptional advantages which, in recent years more particularly, have received popular and increasing advocacy in the press and elsewhere. Hence it has become a favoured and much-frequented resort for consumptive patients.

But we find that from well-nigh every incoming steamer some passengers land in the colony practically in a helpless condition, with very little hope of recovery, and, what is worse, with no funds to provide for their maintenance. Hence something must be done to avert the serious consequences which must inevitably ensue from a continuance of such a state of things. Few can realise to what an extent our population is being increased by this class of immigrant, and, under the circumstances, we feel compelled to make clearly known to those at a distance the terrible fate which awaits these unfortunate persons. For, although the climate of South Africa undoubtedly has a beneficial effect on invalids who can afford to support themselves without having to work, in a part of the country suited to their state of health, those who are almost or entirely destitute, and must therefore obtain employment for which they are physically unfitted, have their sufferings materially increased through the privations to which they are subjected.

The climate is unquestionably suitable for carefully selected cases in the early stages of the disease, but it is positively criminal and inhuman to send out cases practically in the last stages without fair and reasonable hope of recovery, and thus to expose them to a cruel exile amidst strangers, culminating in their early death far from friends and home.

As an illustration of such a hopeless and helpless case the following may be cited: A lad, aged 14, who had been sent out by a philanthropic institution, was recently landed at the Cape Town Docks in the last stages of consumption with but 10s. in his pocket, and not a single friend in the country. The lad had therefore to be removed to the Somerset Hospital, where such cases are not usually admitted, and, after lingering for a few weeks, he died in that institution. In such extreme cases the hope of recovery held out to the patient is sure to be shattered.

In view of the facts we have stated, we would respectfully point out to those in authority at home, especially the medical faculty, that they incur a serious responsibility in the selection of cases to be sent out to the Cape, and would ask them to bear in mind the following principles for their guidance:

1. In order to benefit by the climate of South Africa, invalids must not be too far advanced, but should be sent out in the comparatively early stages only.
2. Such patients should be possessed of some means to enable them to place themselves under the favourable conditions essential to their recovery for at least twelve months independently of work.
3. Certain parts of the country, notably the seaports, are extremely prejudicial to phthisical patients, and it should be carefully ascertained beforehand which part is best suited to the requirements of the particular case.
4. There is no hospital or home in which consumptives can receive gratuitous treatment.
5. The European labour market throughout South Africa is overcrowded, and work is not so easily obtainable by even those in the best of health as is generally supposed.

ACADEMICAL COSTUME AND THE TITLE OF "DR."

NOTHING VENTURE, ETC., writes: I noticed a letter in the BRITISH MEDICAL JOURNAL of December 21st, 1898, headed as above the writer of which, whilst informing the profession that a Diplomate of the Royal College of Surgeons can now wear a gown, deplores the fact that a hood cannot also be worn. This concession to the Diplomates so tardily granted by the Royal College of Surgeons may be followed by another from the Royal College of Physicians, and then perhaps it may be that an M.R.C.S. and L.R.C.P. will have the right to don a hood and gown. As the writer of the letter above alluded to says something about the title "Dr.," may I suggest that if he and the thousands of other Diplomates who are groaning under this disability joined together in a petition to the Colleges there is no doubt that the heads of the Colleges would take some action. There is no excuse or reason now, as a teaching university in London is in view, that the Colleges could produce for refusing to grant a title to a medical practitioner, in other words, a degree in medicine. There is room enough in London for another university; New York has three with fewer inhabitants. In each province in Canada there is, I believe, a Royal College of Physicians and Surgeons which grants a degree as well as diplomas. Dublin and Durham Universities grant diplomas as well as degrees in medicine, and why should not the Conjoint Board do the same? Is there no halfway between the "fifteen years' standing" and "residence"? Practitioners are willing to undergo the strictest examinations and pay big fees, as may be proved by the rapidly increasing list of Brussels men.

LETTERS, COMMUNICATIONS, ETC., have been received from:

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A STUDY
OF
THE EPIDEMIC OF TYPHOID FEVER IN BELFAST, 1898.

BY

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THE EPIDEMIC OF 1897-98.

The number of cases of typhoid fever in Belfast rose early in 1897 markedly above what has been regarded as the endemic average. This high rate continued until the autumn of 1898, when the outbreak became formidable, and in the end of August the Public Health Committee of the Corporation determined to have a bacteriological investigation carried out with the view of discovering the source of infection. The report was furnished to the Corporation a short time ago, and in the present paper we describe some of the observations of scientific interest which were made during the investigation.

THE WATER SUPPLY.

Various local circumstances indicated that the water supply could not be regarded as beyond suspicion. In examining the water, however, no typhoid bacilli were isolated, but a large number of varieties of the bacillus coli communis were found. The significance to be attached to the presence of this organism in drinking water is a matter which has never been definitely settled. It seemed to us that the natural way to attack the question in this case was to study the relation of these bacilli to those directly obtained from cases of typhoid fever in the epidemic. In carrying this out it became evident that it was necessary to investigate also the relation of these bacilli to the process of infection in typhoid fever.

RACES OF B. COLI.

Many of the varieties obtained from the water conformed to the ordinary intestinal type of B. coli, but from time to time races were isolated which, when tested with the serum of typhoid patients, showed by their reactions that they possessed a special relation to the typhoid disease. The presence of a serum reaction to various races of B. coli has an important bearing on the question of B. coli infection in typhoid fever, and we have confined our attention to the interpretation of observations on patients in regard to this subject.

In their morphology the races vary slightly among themselves. Differences exist as regards average length, the number and length of the flagella, rapidity of milk clotting, of indol production, and of the production of gas bubbles from sugars at room temperature. When compared with the classical type of the B. coli, they all conform in general to the accepted description of this bacillus. We have, however, compared them in some detail with a number of B. coli races which we isolated from the healthy human intestine, and find that these bacilli differ from many of the latter in that they all possess a high motility, in more rapid production of indol in peptone solution (Dunham), and of gas bubbles in gelatine shake cultures. Most of the varieties also possess more numerous and longer flagella than those commonly described in this bacillus. Gordon, however, considers this character in regard to flagella as not uncommon.[1]

In the second place, the pathogenicity of several varieties was tested, but does not call for special remark. It was observed usually after they had been cultivated for some time. One bacillus (Coli H) was tested soon after its isolation from the water. A guinea-pig of 350 grams weight was inoculated subcutaneously with 1.5 c.cm. of a twelve hours' broth culture of this bacillus. The animal died in eleven hours and a-half, and the bacillus was recovered in pure culture from its blood. Several rabbits were inoculated with small doses of three other varieties which had undergone repeated cultivation on artificial media. Local sores always formed, and some of the animals died. On the whole, we may say that these bacilli appeared to have a greater pathogenicity for small animals than is possessed by the varieties of B. coli commonly present in water.

THE SERUM REACTION.

The investigation, however, was concerned chiefly with the direct evidence of the connection of these bacilli with typhoid fever, which was obtained by observing the effect on them of the diluted serum of typhoid patients. We examined over 200 cases, and found that in a large proportion of them the serum possessed the power of clumping one or other of these bacilli. Before going into our observations in detail, we may shortly refer to the results of previous investigations on the subject.

SYMBIOSIS OF B. COLI AND B. TYPHOSUS.

A large amount of work has been done to prove that races of B. coli are modified by their occurrence along with the typhoid organism. The symbiosis apparently increases their pathogenic power. Pisenti and Bianchi-Mariotti have shown that the races of B. coli which are found in normal stools are less pathogenic than those which have been isolated from the fæces of a typhoid patient. The same feature is observed by them *in vitro*. If a culture of coli be planted in the gelatine in which a growth of typhoid has been, it increases markedly in its virulence.[2] This observation is confirmed by Sanarelli.[3] His opinion is that when the typhoid process sets up, this bacillus acquires virulence, and takes part in the disease. The work of Sanarelli is essentially experimental, and will be more fully discussed later in the paper.

A few observations have been recorded indicating a close connection between the agglutination of the typhoid bacillus and races of B. coli. Courmont, at the time when the facts of agglutination were first studied, stated that the serum of typhoid patients clumped the B. coli.[4] This result was controverted by Chantemesse and Achard. Bordet states that an "antityphoid" serum clumps B. coli.[5] Gilbert and Fournier, on the other hand, investigated the agglutination of B. coli with typhoid serum with negative results.[6] Durham, working with the serums of patients and of animals experimentally inoculated with typhoid, failed to find any effect on a number of cultures of B. coli.[7] Christophers has shown that with certain races of B. coli a reaction may be observed in the normal human serum also. We found that we had to avoid coli races of this type.

The method of testing this reaction which we employed was to leave the diluted serum in contact with a young culture of the bacillus under observation in a moist chamber, and to examine the hanging drop microscopically after a suitable interval. After a considerable number of experiments we adopted a dilution of 1 in 100, and allowed a period of two hours for the action of the serum. A 1 per cent. dilution seems to us very suitable for examining a series of cases with various cultures, with a view to determining the nature and relation of the organisms which are supposed to have had an action on the serum. The serum is still concentrated enough to bring out a clear reaction in the majority of cases, and yet not so strong as to obscure the differences in reaction which the various races and species of bacilli manifest when acted on by a given sample of serum. The method was amply controlled by repeated observations on the same serum, and in no case was there a discrepancy which could be taken as casting doubt upon it.

GROUP OF BACILLI STUDIED.

The bacilli we observed were of the following groups: (1) Typhoid, 8 races; (2) B. enteritidis (Gaertner), 3 races; (3) B. coli communis from the water which clump with the serum of typhoid patients, 6 races; (4) B. coli communis from spleens of typhoid patients. Varieties were tested as they were isolated. Owing to the difficulty of obtaining *post-mortem* examinations, only five such spleens were examined for B. coli. In one we found several races of B. coli which clumped, and we selected for constant use that which gave the clearest reactions. In another we found a race of B. coli, which reacted in only a few cases. The races of B. coli in the others did not clump. (5) B. coli communis from the normal intestine. A large number of races were isolated and tested, several of them being used constantly as controls. No reactions were obtained.

We attempted as far as possible to make observations on cases from other centres also, and we have to express our indebtedness to Dr. Darling, of Lurgan, who provided us with samples of blood from 30 cases in his practice. We have also to thank Dr. O'Sullivan, Trinity College, Dublin, for sending us samples of blood from cases which came under his notice. These cases we have studied separately, but from the examination of them we were unable to discover any differences in the nature of the infection in these three localities.

We also made control observations on the serum of normal individuals. These observations were done at a 5 per cent. dilution of the serum, and except in two cases no reaction greater than a slight indication of agglutination occurred with any of the bacilli. One of the two exceptional cases was a boy employed in the laboratory, whose only illness had been of one day's duration, and was due to indiscretion in diet. The other was an adult who has had no illness since infancy. These two cases support the contention of Durham that a dilution of 1 in 20 is fallacious in clinical diagnosis. Both gave a very clear reaction at this dilution, but only a trace at a dilution of 1 in 100. It is important to observe that the action of these two healthy sera on the group of B. coli we were investigating was as marked as on the typhoid and Gaertner groups.

RESULTS OF SERUM TESTS.

Putting together the cases from Belfast, Lurgan, and Dublin, the following table shows the percentage in which each bacillus gave the reactions which we considered standard, namely, the clumps large, and most of the bacilli clumped. The cases numbered 168. We have not included in this table a large number of cases which were examined by other methods. The bacilli are designated by initials and numbers. H.S., B.T.A., B.W., "Gaertner" and "Hatton," were races kindly sent by Dr. Durham.

B. Typhi.

H.S.	Spleen 1.	Fh.	Mn.	B2.	D5.	B.T.A.	B.W.
24.8 %	26.4 %	30 %	37.5 %	36.6 %	39 %	50 %	52.4 %

B. Enteritidis.

Spleen 2.	Gaertner.	Hatton.
18.5 %	17.5 %	7.6 %

B. Coli Communis.

L.	H.	F.	No. 25.	C.P.	No. 7.	No. 6.
32.7 %	26.0 %	26.0 %	19.8 %	15.0 %	11.3 %	10.7 %

It will be observed that the highest percentage of reactions of any typhoid bacillus is only 52.4. The cases from which this table is compiled were all clinically diagnosed as cases of typhoid fever. A less marked agglutination than we adopted as our standard reaction is diagnostic of typhoid infection. Minor reactions were recorded, and have been analysed so far as they form control observations or contribute to the elucidation of the others.

If we sum up the results in a different way, we find that one or more of the typhoid races reacted to 73 per cent. of the cases, one or more of the Gaertner races to 25 per cent., and some of the races of B. coli to 50 per cent. There were very few cases where all the eight typhoid races gave a standard reaction, and in cases where the serum acted on races of B. coli, the degree of the reaction varied with the race, and there were always some which were unaffected. We have not been able to trace any particular association of reactions between the different races of B. coli which we investigated. There are, however, certain races amongst the seven which obtained the highest averages in the cases from each of the three centres we studied.

This table raises a number of questions, but the only one which we can discuss in this paper is whether we have to deal with a single or with a multiple infection.

In a given case it is common to find the reaction as follows:

FOURTH DAY OF DISEASE.

B. Typhi.

H.S.	Spleen 1.	Fh.	Mn.	B2.	D5.	B.T.A.	B.W.
×	—	×	×	×	⟍	⟍	×

B. Enteritidis.

Spleen 2.	Gaertner.	Hatton.
⟍	⟍	×

B. Coli Communis.

L.	H.	F.	No. 25.	C.P.	No. 7.	No. 6.
×	×	—	⟋+	o	⟍+	o

In these tables × means a standard reaction, ⟍ a slight reaction, and ⟋ a mere trace. The symbols + and — further differentiate them.

Here we have a serum which is capable of agglutinating members of each of the three groups of bacilli. It is well known that the serum of an animal which has been infected with the typhoid bacillus exercises an agglutinating power, not only over the infecting bacillus but also over the allied species of B. enteritidis. This fact was first described by Grüber in relation to the Eberth and Gaertner bacilli. To this association in agglutination the name of "mutual reaction" has been given by Durham. Thomassen obtained the same results with these two groups of bacilli,[8] and Gilbert and Fournier observed a similar relationship between B. typhi and B. psittacosis.[9]

While recognising that this mutual relationship exists, we must also note that a serum which clumps both species of bacilli yet clumps the infecting species when it has been so highly diluted that it has only a slight, if any, effect on the allied species. From this fact is derived the principle on which depends the method of studying the reaction of bacilli to a serum at increasing stages of dilution. We applied this method of dilution in the investigation of the reaction of the B. coli, and in a few cases the bacillus which reacted at the highest dilution was one of the B. coli group. The method is, however, clearly inapplicable if the possibility of a mixed infection be granted. We were led, therefore, to take up other lines of investigation regarding the question of infection.

Certain cases were examined in which, at a dilution of 1 per cent., a standard reaction was obtained only in the members of the coli group. The following is an example:

SIXTEENTH DAY OF DISEASE.

B. Typhi.

H.S.	Spleen 1.	Mn.	B2.	B.T.A.	B.W.
o	⟋	⟋	⟋	⟍	⟍

B. Enteritidis.

Spleen 2.	Gaertner.	Hatton.
⟍	⟍+	o

B. Coli Communis.

L.	H.	No. 25.	C.P.	No. 7.	No. 6.
×	⟍+	⟍	××	⟍	⟍

The serum, unfortunately could not be obtained a second time. The disease ran a typical course, resulting in death a fortnight after this examination was made. Had this serum been examined at a later date it would in all probability have given much clearer evidence of typhoid infection. In this case the reaction of the B. coli is clearly independent of that of the B. typhi.

There were also many cases in which the serum reacted to the typhoid and coli groups only. The large number of observations which have been made showing the absence of agglutination of the B. coli with typhoid serum clearly indicate that a mutual reaction does not exist, at least to the same extent as it has been shown to exist between the typhoid and Gaertner groups. When, therefore, we find that a given serum has an effect on the typhoid races, and also on the B. coli, but has no effect on the Gaertner varieties, it is more natural to regard the two reactions as independent of each other. We may refer to the following example:

SIXTH DAY OF DISEASE.

B. Typhi.

H.S.	Spleen 1.	Fh.	Mn.	B2.	D5.	B.T.A.
×+	×	×	×	×	××	×+

B. Enteritidis.

Spleen 2.	Gaertner.	Hatton.
o	o	o

B. Coli Communis.

L.	C.P.	No. 7.	No. 6.	
×	×	o	o	

There were, in the third place, many cases in which the reaction modified essentially as the case progressed. It has been recognised by several investigators that important information in regard to the reaction of the serum in a given case can be obtained by making successive observations during the course of the disease.[10]

A number of the cases when first examined gave a clear reaction to the B. coli group alone. We were fortunately able to obtain the serum a second time in several of these cases, and we usually found that at the later period it showed a distinct power of agglutinating the B. typhi also. The following instance is an example of this type of reaction:

TWELFTH AND FORTIETH DAYS OF DISEASE.

B. Typhi.

	H.S.	Spleen 1.	Mn.	B2.	B.T.A.	B.W.
12th day ...	/	\	o	/	/	/
40th day ...	\	\	×—	\—	×	\

B. Enteritidis.

	Spleen 2.	Gaertner.	Hatton.
12th day...	—	o	\
40th day...	\	\—	\

B. Coli Communis.

	L.	H.	No. 25.	C.P.	No. 7.	No. 6.
12th day ...	×+	—	—	×	\	×
40th day ...	×	×	\	×	\	×

In cases such as this it would be difficult to believe that the reactions from the first are due simply to the invasion of the typhoid bacillus. If so, it would mean that the bacilli infecting an organism may so act on it that the serum of its blood becomes possessed of the power of agglutinating bacilli of another species before it has any effect on bacilli of its own species. The more natural supposition is that the reaction of the B. coli in such cases is due to some process of infection for which it itself is responsible. We may therefore conclude on these grounds that the reaction of the B. coli indicates an independent infection by a member of this group.

COMPARATIVE STUDY OF THE GROUPS.

The problem which now awaits solution is the following: Since the serum of the patient gives indication of an independent infection, can we, by the aid of this reaction, proceed directly to the isolation or discrimination of the race or races of B. coli which are concerned in the infection?

To answer this question we must compare the three groups of bacilli whose reactions we have tabulated. Not only do the three groups differ from each other as groups, but within each group individual races of bacilli differ from one another both in their morphology and in their serum reactions. We need not discuss the slight morphological differences among the typhoid races. We may refer to a statement by Sanarelli on this subject.[11] The differences in the serum reactions are abundantly illustrated by all our cases. One race of typhoid bacilli may show a standard reaction in a given case while another is apparently unaffected. Amongst the B. enteritidis races morphological and physiological differences of a more pronounced kind are observed; while the B. coli group may be said to be specially characterised by the morphological differences which its members present.[12]

THE TYPHOID GROUP.

We may, therefore, raise the question in the first instance in regard to the typhoid group, since the various members of it resemble each other so closely. Can we, by means of the serum reactions, identify the race which produced an infection?

Early in our study of the Belfast epidemic we isolated from the spleen of a patient the race we have called in our table Spleen 1. This bacillus, it should be noted, gave a reaction in 26 per cent. of the cases, while B.T.A. and B.W. reacted in 52 per cent. and 50 per cent. of the cases respectively. Similarly the bacillus D5, isolated from a spleen sent to us by Dr. Darling, reacted only in 45 per cent. of Dr. Darling's cases, while B.W. reacted in 60 per cent. of them.

We put the question finally to the test of experiment. A rabbit was inoculated with repeated doses of the bacillus Spleen 1 until its blood gave a strong reaction. It was then found that with the serum at a dilution of 1 in 1,000, Spleen 1 gave merely a trace of reaction, while B.T.A., B.W., and B.T.H. showed a standard reaction.

These observations, which confirm those of Widal and Sicard,[13] prove that within the typhoid group it is impossible from the serum reactions to detect the infecting race of typhoid bacilli. Since each race of B. typhi possesses a certain facility in clumping, it is only when the infecting bacillus is at the same time the bacillus least resistant to agglutination that it gives the best reaction to the serum of the infected animal. The bacilli which in the table of reactions obtain the highest average did not give the most pronounced reactions in every case. Unusual reactions are difficult to explain, but may be supposed to depend upon some individual peculiarity of the patients. In making our control observations we noticed that the serum of normal individuals frequently possessed a slight power of clumping a particular race of typhoid bacilli, while other races were unaffected. The extent of the action on a given race of bacilli of the serum of a particular case depends probably on three factors: (1) The species of the bacillus, (2) its facility in clumping, and (3) the individuality of the serum. The reaction should therefore be regarded as that of a group of bacilli rather than that of a particular member of the group.

THE B. COLI GROUP.

When we pass to the study of the B. coli reactions, it is uncertain how far we can apply the principles which obtain in the interpretation of the reactions of the typhoid group. Compared with the B. typhi group, the B. coli communis group is more variable, not only morphologically, but also in regard to its serum reactions. We may exemplify both these points by the varieties which we can discover in the same typhoid spleen. In that, for example, from which Coli 7 was isolated, there were other races, among which some were morphologically identical with it, while others differed. Many of these did not react in cases where Coli 7 reacted, and some never reacted at all. Another point in which the group showed a general similarity to the typhoid group was the fact that the same members of it obtained the highest averages of reactions in each of the three series of typhoid cases we examined. We have not in our possession as yet sufficient observations on the subject; but the conclusion suggested by the experiments already carried out is that the principles regulating the occurrence of reactions in the typhoid group are also applicable to the B. coli group.

Sanarelli has suggested autointoxication as a process which takes place in typhoid fever. The data we have at present are insufficient to lead to a conclusion on this; but, in considering the races of B. coli which react, we wish to emphasise the fact that they do not separate themselves into a morphological group distinguishable from the other members of the species. The bacillus L., which reacted most frequently, has in its cultural features very pronounced coli characters, and the six races we have selected differ only slightly from the traditional B. coli communis.

We may, speaking generally, compare the B. coli group with many other bacteria which possess pathogenic power. The pneumococcus found in inflamed lungs is only pathologically distinguished from the innocent diplococcus of the healthy mouth. A similar remark applies to the streptococcus of erysipelas. The vibrios are a notorious example of a group of microbes which are differentiated chiefly by their pathogenic characters. Should similar results be arrived at in relation to the B. coli, it would only be placed on the same footing as other bacteria if we selected from it a subgroup differentiated solely by their possession of pathogenic properties.

SUMMARY.

We may therefore sum up the observations on the serum of patients in regard to infection as yielding the following results: (1) The occurrence of the reaction of B. coli, though subordinate to that of B. typhi, is yet independent. (2) The serum reaction is in itself probably insufficient for the discrimination of the races of B. coli communis which possess the power of invasion in typhoid fever.

Other methods of solving this question clinically and experimentally suggest themselves, and we have in progress experiments on the subject. The study, for example, of the races of coli which occur in the urine in a certain proportion of typhoid cases promises to yield important results.

EXPERIMENTS ON ANIMALS.

We have carried out a certain amount of experimental work for the purpose of controlling the observations upon patients. It was necessary to ascertain whether or not the serum of an animal inoculated with the typhoid bacillus acquired the power of agglutinating the B. coli races in question. Durham has confirmed his negative clinical observations by similar results obtained with experimental sera. On the other hand, the investigations already referred to on the mutual reaction of B. typhi and B. enteritidis suggest a similar relationship between B. typhi and the B. coli under discussion. The research of Demel and Orlandi, confirmed by Sanarelli, showing that immunisation against either B. typhi or B. coli confers immunity against the other supports the same hypothesis.[14] Our observations would also point in this direction.

In examining at intervals the serum of a rabbit which was inoculated with repeated small doses of B. typhi (Spleen 1), we found that it acquired the property of agglutinating first the B. typhi, at a later stage the B. enteritidis, and still later the B. coli with which we are concerned. We concluded therefore that the typhoid bacillus has a mutual reaction, well marked with certain varieties of B. enteritidis, less distinct with other varieties, and still less with the races of B. coli. Recently Gordon, working in Klein's laboratory, has isolated a variety of B. coli which probably belongs to the group under consideration, for it was slowly clumped by the serum of a horse experimentally inoculated with the typhoid bacillus.

Rabbits were inoculated with three varieties of B. coli also—namely, L., No. 6, and No. 7. These three bacilli were found to have a moderate degree of mutual reaction with the other four races of B. coli, and somewhat less with the enteritidis and typhi races.

The observations we have just described are sufficient for testing the conclusions reached by the study of the agglutinating reactions of typhoid serum in this epidemic. The serum of the rabbit contrasts with that of the patient. The latter frequently clumps at an early stage the B. coli alone, and at a subsequent period the B. typhi also. The rabbit serum, on the other hand, at first clumps the B. typhi alone, and later the B. coli also—that is, when the agglutinating power is increased. This confirms our conclusion that in the patient's serum the B. coli reaction in many cases depends on something else than a pure typhoid infection. Those cases in which the serum shows a marked reaction to both B. typhi and B. coli and little or no reaction to B. enteritidis also differ essentially from the typhoid-infected rabbit, whose serum, when potent enough to clump the B. coli, had a still more pronounced effect on B. enteritidis.

Experimental evidence to further prove the double infection is not required in the cases where the reaction to B. coli was at first the only one, and was later accompanied by a reaction to B. typhi also.

THE B. COLI IN TYPHOID FEVER.

The question of what part in the process of typhoid fever the coli infection plays must for the present be left untouched. The solution requires more elaborate clinical and experimental investigation than we have yet been able to carry out.

As regards the time relations of the infection, we have been unable from our analysis of the cases to decide at what particular period, if any, in the history of the case the coli invasion commonly occurs. Other methods of research must, however, be applied to carry the investigation of this further.

It is unnecessary here to refer to recent researches on the pathology of typhoid fever farther than to point out that the problem raised in this investigation is one of the main problems in recent experimental work.

The typhoid bacillus differs in the degree of its pathogenicity from the microbes of many infective diseases. When inoculated directly from the human spleen into guinea-pigs, the least resistant of small mammals, it possesses little or no virulence, an enormous dose being necessary to kill the animal. This is still more true when it has been cultivated. The large amount of work that has been recorded with regard to inoculation of animals with this bacillus is summed up in the researches of Sanarelli.[15] Sanarelli notes the absence of pathogenicity in the bacillus as it is isolated from the spleen; but he finds that it acquires a high degree of virulence if it be passed through a series of animals, each inoculated from the abundant peritoneal exudate of its predecessor. In the earlier inoculations it is necessary to reinforce the bacillus, or to diminish the resistance of the animal, in order to enable the bacillus to diffuse itself. Sanarelli used for this purpose large intraperitoneal injections of the products of metabolism of other bacteria. He found the products of the B. coli most suitable, although he thinks the products of other bacteria may be equally effective. His practice was to inoculate the first of his series of guinea-pigs with 0.5 c.cm. of a broth culture of B. typhi subcutaneously, and at the same time to inject 10 c.cm. of sterilised culture of B. coli into the peritoneal cavity. The animal died usually within twenty-four hours. A culture from its peritoneum was injected into a second animal in the same way. It was found possible to diminish the dose both of bacilli and of coli products, and ultimately the bacilli became virulent enough to produce the effect without the assistance of the coli intoxication. Even at this stage the virulence is much inferior to that of many organisms, such as the pneumococcus, swine plague bacillus, etc., and the bacillus readily relapses to its original innocuous condition.

Sanarelli, in a similar series of experiments, observed the effect upon the B. coli in the intestine of injections of the toxins of B. typhi. When the toxins were administered in repeated small doses in such a manner as to produce immunity, he found the contents of the small intestine to be sterile, the B. coli normally present there having disappeared. When an overdose of typhoid products was administered in the course of such an immunisation experiment, there occurred a coli invasion, which resulted in localised abscesses from which the bacilli could be isolated. The two results of Sanarelli's work which have a direct bearing on our observations in the recent epidemic are (1) the effect of B. coli products in increasing the virulence of this typhoid bacillus, and (2) the effect of the injection of typhoid toxins in bringing about an invasion of B. coli. Sanarelli himself thinks it probable that autointoxication with products of intestinal fermentation is a factor in the causation of typhoid fever, and this suggestion brings the theory of the disease into line with his experimental results.

Chantemesse and Widal carried out simultaneously a research on the same subject. They consider the typhoid bacillus isolated from the spleen as having slightly more virulence than was ascribed to it by Sanarelli. But they also had recourse to adjuvants to procure a really virulent bacillus. They used, among others, the products of the B. coli. The conclusion, they state without reservation, is that some factor besides the typhoid bacillus is concerned in the production of typhoid fever.[15]

Conclusion,

The observations on the epidemic which we have recorded in this paper afford further grounds for the application of the results of recent experimental work to the interpretation of the disease in the human subject. The attempts to reproduce in animals typhoid fever as a disease have been, on the whole, unsatisfactory, and, as we have seen, the difficulty is not a simple one. The first stage of the process must consist in obtaining bacilli of such virulence that they can invade the tissues of animals, and this difficulty has been overcome by the use of adjuvants. The further stages in the process of reproducing the disease are still unknown.

The object before us in this investigation has been to show that in patients there can be obtained from the serum indications of coli invasion during the process of typhoid fever. In other words, there is a large body of evidence to prove that Sanarelli's experimental results are directly applicable to typhoid disease in the human subject.

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ON THE VALUE OF THE TREATMENT OF DIPHTHERIA BY ANTITOXIN.

Being an Introduction to a Discussion held at the Hunterian Society.

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The Introduction of Antitoxin.

It is now upwards of four years since Roux at the Eighth International Congress of Hygiene at Buda-Pesth read his classic paper on the treatment of diphtheria by antitoxic serum. Before that occasion there had been furnished by certain German clinical observers no mean evidence that the treatment was of value, but it was Roux's paper that suddenly and prominently brought the method before the notice not only of the profession, but also of the public throughout the world, and for most countries the introduction of the antitoxic treatment dates from the latter part of 1894.

At first, even after the publication of Roux's paper, the new remedy was looked on with much suspicion. So many specifics had from time to time been vaunted against the ravages of diphtheria, and though I will not go so far as to say that none of them were of service, yet certain it is that they never fulfilled a tithe of the promises made on their behalf; moreover, the tuberculin fiasco of 1890 was still fresh in the memory. But the previous terrible fatality of the disease, the stability of the experimental evidence upon which the new treatment was based, the openness with which the preparation of the serum was made known, and the weight attaching to the observations of one so eminent in science as Roux, compelled those who were concerned in the care of large numbers of diphtheria cases to give the method a thorough and unbiassed trial. Now, at the end of these four years, I think I can safely assert, without fear of contradiction, that all those who have employed the treatment in a sufficient number of cases have made up their minds regarding its value one way or the other, and that a large majority of these are agreed that all that was claimed for it has been fulfilled. There are a few who, even after more than a casual trial, are of the opposite way of thinking. Besides these two classes, there is another consisting of those who are, so to speak, of no way of thinking at all; they have either had few or no cases to treat, or they have not been able to procure the remedy, or they have not really troubled themselves about the question, but have preferred to go on with methods of treatment ancient but inefficient. The latter group, I fear, contains no small number of practitioners, judging by the evidence I daily encounter in the many children I see admitted to hospital in a hopeless condition who have not been afforded, while still there was time, the relief that antitoxin brings. I believe, moreover, that a study of such statistical facts as are available shows that the treatment has not been used to any marked extent outside hospitals.

Effect on Mortality in London.

During the past three years there has been a lowering of the case mortality of diphtheria in London. The following table (Table I) shows to what extent this has occurred:

Table I.—*Case Mortality of Diphtheria in London.*

	1892.	1893.	1894.	1895.	1896.	1897.
Mortality per cent. of all notified cases	23.8	24.5	24.7	21.2	19.9	17.4
Mortality per cent. of notified cases admitted to Asylums Board hospitals...	24.8	27.1	25.0	18.3	17.7	14.9
Mortality per cent of notified cases not admitted	21.5	23.7	24.5	23.3	21.3	20.1
Percentage of notified cases admitted to hospitals	30.1	24.5	38.8	41.5	39.9	51.4

[The figures from which this table has been compiled are given in the annual reports of the Statistical Committee of the Metropolitan Asylums Board. They consist of the annual number of notifications, the annual number of registered deaths inside and outside the Board's hospitals, and the annual percentage of notified cases admitted to the hospitals. The actual number of notified cases admitted is not given except for the year 1897; but the number can be calculated pretty closely from the percentage. It must be understood that the table deals with cases admitted to hospitals as they are notified, and not as corrected for errors of diagnosis.]

The fatality (at its maximum 24.7 in 1894) fell to 17.4 in 1897; but it will be observed that this progressive diminution has been during the same time more marked among cases admitted to hospital than amongst those remaining outside, namely, from 25.0 to 14.9 in the one instance, and from 24.5 to 20.1 in the other. Usually the fatality of hospital-treated cases is higher than that of those not admitted to hospital. It was so for the years 1892, 1893, and 1894; in the latter year the difference was slight. But since 1894 this has not been the case. I think, therefore, it can be fairly claimed without laying undue stress upon the figures given in Table I, that some special factor has been at work to cause such marked changes, and knowing what I do of the value of the serum treatment, evidence of which I shall bring forward later, I am prepared to find this factor in antitoxin. It is impossible to say how many of the notified cases admitted to hospital have been treated with antitoxin; for the annual reports of the Asylums Board give only the number of cases so treated amongst cases corrected for errors of diagnosis. It can only be said, as giving an indication of the extent to which the treatment has been carried out, that during November and December, 1894, a considerable number of such cases were treated; and that for 1895, 1896, and 1897 the percentage was 61.8, 66.2, and 80.2.

I think from these various figures I am justified in saying that the diminished fatality in London as a whole is due to the use of antitoxin; and, further, that the figures point to the conclusion that it is chiefly in hospitals that antitoxin is used; otherwise why has there not been an equal improvement in cases treated outside hospitals?

Daily experience in a hospital that has about 200 beds set aside for the treatment of diphtheria leads me to infer that very few cases are treated with antitoxin before admission. And this is not because the patients are sent to hospital early to get treatment. On the contrary, for the years 1894, 1895, and 1896 the percentage of diphtheria cases admitted to the Asylums Boards hospitals on or after the fourth day of illness was 59.2, 67.7, and 74.3. The difference in the fatality of cases according as they are treated in or outside hospitals would be very much more accentuated in favour of the hospitals were it not for the fact that a large proportion of the fatal cases are admitted at so late a stage of the disease as to be in a hopeless condition, and beyond the reach of any treatment whatsoever. In 1894, 1895, and 1896, 59.3, 67.6, and 74.4 per cent. respectively of the fatal cases were admitted on or after the fourth day of the illness.

All the evidence I have brought forward has been designed to show, and I think does show, that outside the hospitals, general or special, the antitoxin treatment of diphtheria is little practised. I believe that one of the objects of the discussion held here this evening is to point out the value of the treatment to such as have hitherto held aloof from it. I sincerely hope that this object may be attained; for, impressed as I am with the value of the remedy, it seems to me to be almost criminal that hundreds of children should be allowed to die every year in London for want of its timely application.

THE THERAPEUTIC VALUE OF ANTITOXIN.

I will now proceed to put before you the chief reasons which have led me to the conclusion that antitoxin is really a remedy of immense value in the treatment of diphtheria. My faith is based upon facts statistical and clinical. The former are more readily placed before an audience, the latter have a more personal appeal. Let us take the first great statistical fact—namely, the reduction in the case mortality. This has been crudely shown in Table I. But it becomes much more evident when we consider the hospital-treated cases after they have been corrected for errors of diagnosis. The case mortalities in the Asylums Board hospitals for the years 1892 to 1897 inclusive are as follows:

TABLE II.—*Case Mortality of Diphtheria Cases in the Hospitals of the Metropolitan Asylums Board.*

1892.	1893.	1894.	1895.	1896.	1897.
29.5	30.4	29.2	22.8	21.2	17.6

The reduction since 1894 is extremely marked. But it may be said that the later years of this series contained a larger proportion of adult patients, amongst whom diphtheria is less fatal than amongst children than the earlier years. While I think it could be shown that there is no weight in this objection, we will however allow it, and deal with the children under 5 years of age. For these, however, I cannot obtain the death-rates so accurately as for the whole of the cases. I give them as obtained by calculating the percentage of deaths on admissions (Table III):

TABLE III.—*Case Mortality of Diphtheria in Children under 5 Years of Age in the Metropolitan Asylums Board Hospitals.*

1892.	1893.	1894.	1895.	1896.	1897.
51.5	53.3	43.0	33.5	30.3	24.9

From Table III it appears that, beginning with 1894, there has been a marked diminution in the death rate, so that it is about half what it used to be. Included amonst these cases are all those which are fatal from other diseases combined with or following diphtheria, but in no way resulting from it. To exclude these from the foregoing figures is impossible, the necessary data being wanting. I can, however, make the correction for the cases treated at the Eastern Hospital, with the following results, for the cases not treated with antitoxin in 1894, and all cases in 1896 and 1897 (Table IV):

TABLE IV.—*Eastern Hospital. Case Mortality of Diphtheria in Children under 5, corrected for Deaths other than Diphtheria.*

1894 (Jan. 1 to Oct. 22). Cases not treated with antitoxin	180 with	83 deaths	—46.1	per cent.
1896 All cases	264 ,,	62 ,,	—23.4	,,
1897 All cases	401 ,,	111 ,,	—27.6	,,

(Of the 1896 cases 231 with 57 deaths, and of the 1897 cases 385 with 108 deaths were treated with antitoxin.)

To these figures, however, the following objections may be offered with more or less validity; indeed, to similar figures such objections have been offered—namely, that the age distribution of the cases may vary, even in so small a group relatively as that of the cases under 5, for amongst such children the younger the patient the higher the fatality. Or, again, a more forcible objection, that the 1896 or 1897 cases include a considerable proportion of "bacteriological" cases, cases, that is, in which the diagnosis has been made mostly on bacteriological grounds, such cases being usually of a mild character. It is not probable that either of these causes is sufficient to account for the differences observed. There is no selection of cases for admission; and with respect to the bacteriological difficulty, my experience has been that the cases which are set down as diphtheria because the characteristic bacilli have been found in the faucial lesion occur very largely among adults, certainly amongst patients over 5 years of age. Besides these objections we have further to remember that the proportion of laryngeal cases, and of cases admitted at a late stage of the disease, may have been so variable for these years as to account for part of the altered mortality-rate. In order to eliminate, as far as possible, all such errors as I have mentioned, I have decided to bring prominently before your notice a class of case amongst which they are less likely to arise, and against which, therefore, the foregoing objections cannot be urged with so much force. The class to which I refer is that of the laryngeal diphtheria cases.

STATISTICS OF LARYNGEAL DIPHTHERIA.

Now, in the first place, the laryngeal cases constitute a class concerning which there can be very little, if any, dispute on the score of diagnosis. It is exceedingly unlikely that there will be included amongst them any appreciable number of cases of laryngeal obstruction which are included solely because a bacteriological examination has revealed the presence of the characteristic organism. I take it that if a child presenting symptoms, however slight, of laryngeal obstruction is found to have exudation, however limited, upon its tonsils or soft palate, then that child is the subject of diphtheria. It is, at any rate, generally admitted that the exceptions to this rule are very unusual. Further, a laryngeal case of diphtheria is always to be looked upon with concern because of the suffering that even slight obstruction to respiration entails, and because of the frequency with which a fatal issue results. Lastly, the vast majority of the patients attacked by this form of diphtheria are children under 10 years of age, and a large proportion are under 5. Therefore, from the point of view of diagnosis, fatality, and age, the laryngeal cases constitute a class admirably suited for exhibiting the results of any particular line of treatment.

Now, what has been the fatality of laryngeal diphtheria during past years? Statistics of laryngeal cases which include the cases not tracheotomised are not so numerous as one would wish, and those giving separately the cases not operated upon are still less common. I have collected from the sources indicated in the tables which follow statistics showing the recovery-rate—first, in cases of laryngeal diphtheria, both tracheotomised and not; secondly, in such cases as have not been operated upon; and thirdly, in cases tracheotomised.

CASES NOT TREATED WITH ANTITOXIN.

TABLE V.—*Cases of Laryngeal Diphtheria, whether operated on or not.*

Authority.	Number of Cases.	Number of Recoveries.	Recovery-rate per Cent.
Sanné (Hôpital Sainte-Eugénie, 1854-75)[1]	2,809	831*	29.5
Asylums Board Hospitals, 1894[2]	466	177	38.0
	3,275	1,008	33.8

* Including 118 discharged from hospital uncured.

TABLE VI.—*Cases of Laryngeal Diphtheria not operated upon.*

Authority.	Number of Cases.	Number of Recoveries.	Recovery-rate per Cent.
Sanné (Hôpital Sainte-Eugénie, 1854-75)[1]	497	232*	46.6
Asylums Board Hospitals, 1894[2]	205	100	48.7
Henoch[3]	43	3	6.9
	745	335	44.9

* Including 23 discharged from hospital uncured.

TABLE VII.—*Cases of Laryngeal Diphtheria Tracheotomised.*

Authority.	Number of Cases.	Number of Recoveries.	Recovery-rate per Cent.
Sanné (Hôpital des Enfants Malades, 1851-75)	2,351	690*	29.3
Ditto (Hôpital Sainte-Eugénie)[4]	2,312	599†	25.4
V. Hirsch[5]	1,654	517	31.2
Antitoxin Committee of Clinical Society[6]	1,531	434	28.3
Asylums Board Hospitals (1889-93)[7]	323	104	32.1
Ditto (1894)[3]	261	77	29.5
Clubbe (Sydney Children's Hospital[9])	199	64	32.0
Guersant[10]	156	28	18.0
Eastern Hospital (1892-93) ...	140	30	21.4
	8,927	2,543	28.4

* Including 76 discharged from hospital uncured.
† Including 90 discharged from hospital uncured.
[No intubation cases are included in these tables.]

Of 3,275 cases of laryngeal diphtheria, whether operated upon or not, 1,008 recovered, or 33.8 per cent. Of 745 cases not operated upon, 335, or 44.9 per cent., recovered.

Only 3 of Henoch's 43 cases recovered; if this series is deducted as being exceptionally severe, the rate of recovery in this class becomes 47.2.

Of the tracheotomies a large body of statistics is forthcoming. Of 8,927 tracheotomies 2,543 recovered, or 28.4 per cent. Besides these figures we have other information concerning the results of tracheotomy in preantitoxin days. Roux, in the paper already referred to,[11] states that at the Hôpital des Enfants Malades during the four years immediately preceding the introduction of the antitoxin treatment, the recovery-rate was 27 per cent. Cadet de Gassicourt[12] says that at the Hôpital Trousseau from 1866 to 1878 the recovery was 20.8 per cent. At the same hospital, during the months May to July, 1894,[13] the recovery-rate was only 14 per cent., the cases not being treated with antitoxin. Welch,[14] who collected a large number of statistics, writes as follows: "The percentage of fatality from tracheotomy in diphtheria, given by Monti from a total of 12,376 cases up to 1887 is 73.3 per cent., that is a recovery-rate of 26.7." Henoch[15] states that of 341 tracheotomies under his care scarcely 15 per cent. recovered.

From all these figures it will be observed that, as a rule, under 30 per cent. of the cases recovered. Trousseau[16] states that of his own cases about a fourth recovered; and he thought that for hospital practice one-fifth was a large proportion to be cured. He looked for a recovery-rate of 50 per cent. in private practice. I think statistics go to show that since Trousseau's day there has been some improvement in the results in hospital practice, even before the introduction of antitoxin, due to improvements partly in surgical treatment, partly in nursing and the hygienic arrangements of hospital wards; but I very much doubt whether apart from antitoxin his hopes respecting the results in private practice have ever been realised.

It will be observed that the recovery-rate of the cases not operated upon is, as a rule, higher than that of the tracheotomies. The interpretation of this fact is probably that amongst laryngeal cases those in which the symptoms of obstruction to respiration are urgent are operated upon, and that the fatal cases in this group consist chiefly of toxic cases in which laryngeal symptoms are slight or obscured.

We will now examine the statistics of these different classes since the introduction of the antitoxin treatment. I have arranged them in tables, as with the preantitoxin cases:

CASES TREATED WITH ANTITOXIN.

TABLE VIII.—*Cases of Laryngeal Diphtheria, whether operated upon or not.*

Authority.	Number of Cases.	Number of Recoveries.	Recovery-rate per Cent.
American Pediatric Society[17]...	1,704	1,344	78.8
Asylums Board Hospitals[13] ...	1,422	944	66.3
Belin[19], Strassburg	181	137	75.6
Roux[20]...	131	65	49.6
Zuppinger,[21] Vienna	48	32	66.6
	3,486	2,522	72.3

TABLE IX.—*Cases of Laryngeal Diphtheria not operated upon.*

Authority.	Number of Cases.	Number of Recoveries.	Recovery-rate per Cent.
American Pediatric Society[17]...	1,030	852	82.8
Asylums Board Hospitals[13] ...	742	560	75.4
Belin[19]...	49	49	100.0
Roux[20]...	10	10	100.0
	1,831	1,471	80.3

TABLE X.—*Cases of Laryngeal Diphtheria Tracheotomised.*

Authority.	Number of Cases.	Number of Recoveries.	Recovery-rate per Cent.
Asylums Board Hospitals[13] ...	680	384	56.4
American Pediatric Society[17] ...	668	486	72.7
Collected by Welch from 39 reports[14]	518	313	60.4
Belin[19]	132	88	66.6
Clubbe,[9] Sydney	129	80	62.0
Roux[20]...	121	65	53.7
University College Hospital[22]...	72	53	73.6
Cuno,[23] Frankfort	54	37	68.4
	2,374	1,506	63.4

[No intubation cases are included in these tables.]

Of 3,486 cases of laryngeal diphtheria, including both those tracheotomised and those not, 2,522 recovered, or 72.3 per cent. Of 1,831 cases of laryngeal diphtheria not tracheotomised, 1,471, or 80.3 per cent., recovered; while of 2,374 tracheotomies, 1,506, or 63.4 per cent., were cured. All these cases were treated with antitoxin. It will be observed that, as in the preantitoxin cases, the recovery-rate of the cases not operated upon is greater than that of the tracheotomies, probably for similar reasons.

CONCLUSIONS AS TO ANTITOXIN IN LARYNGEAL DIPHTHERIA.

To give a brief summary of these statistics: Whereas in the preantitoxin days of 100 tracheotomies you could not expect to save more than 29, now you can expect to save no fewer than 53; of laryngeal cases not operated upon, in those days not more than 48, now not fewer than 75; of all cases, then not more than 34, now not fewer than 49. Further, we have a good chance of saving nowadays a much larger percentage of cases than the numbers I have just given. It is quite true that in former times without the use of antitoxin some very good results were obtained in tracheotomy cases. Sanné quotes a series of 87 cases from Geneva with 38 recoveries, or 43 per cent.; and at the North Western Hospital of the Asylums Board for 1893 there were 78 cases with 34 recoveries, or 43.5 per cent. Welch quotes 47 cases reported by Sonnenberg, with a recovery-rate of 62 per cent.; Stintzing as reporting a recovery-rate of 51 per cent., and Witthauer one of 75 per cent. The number of cases, however, in these last two instances is not given in Welch's paper; and even these authors state that antitoxin produced an improvement upon their previous success. But these rates were all uncommon and do not in any way vitiate the conclusions drawn from the figures I have given.

I think I am fully justified in claiming for antitoxin the great reduction in mortality amongst cases of laryngeal diphtheria that these figures reveal. I know of no other agent that can have brought about this result; if there be such it is for the adverse critic to point it out.

TRACHEOTOMY.

The influence of the antitoxin treatment can be demonstrated by means of the laryngeal cases in other ways than by mortality statistics. It has been stated by many writers that the occasion for the operation of tracheotomy has been rendered very much less frequent; and though I believe this really to be the case it is not possible to prove it by the statistics I have produced above. It is quite possible that all the laryngeal cases admitted during a definite and sufficiently lengthy period to any given hospital might already be so far advanced as to require tracheotomy; in which case it could be said that, compared with previous years, the proportion of cases requiring operation was certainly not less and most likely more than before. This was so indeed with the cases treated in the Asylums Board hospitals in 1897. For that year the percentage of laryngeal cases requiring tracheotomy was 53.7. In 1896 the percentage was 41. In 1894 (the non-antitoxin year) it was 56. Thus though there was apparently a diminished necessity for tracheotomy in 1896, in 1897 the operation was called for to almost the same extent relatively as in 1894.

What we really require to know is the number of times in which the larynx becomes involved after the injection of antitoxin in a series of cases all of which are treated with antitoxin. The general consensus of opinion is that it is much more rare for the diphtherial inflammation to spread to the larynx in cases treated with antitoxin than it used to be, and still is, in cases not so treated. Figures illustrative of this fact were given in the reports on the antitoxin treatment drawn up by the medical superintendents of the Asylums Board hospitals. During 1894, of 3,042 consecutive cases not treated with antitoxin, 116, or 3.8 per cent., developed laryngeal symptoms after admission; in 1895 the number of similar cases was 18 in 2,965, or 0.6 per cent.; in 1896 it was 16 in 3,300, or 0.4 per cent.; 61.8 per cent. of the 1895 and 66.6 per cent. of the 1896 cases were treated with antitoxin on admission to hospital. Further evidence on this point was obtained by a study of the cases of diphtheria arising amongst the scarlet fever convalescents at the various hospitals during 1896. Of 412 cases in which there were no laryngeal symptoms present when the serum was injected, in 5 only the larynx became invaded, or 1.2 per cent.; while of 236 cases which were not treated with serum, at any rate till after the onset of croup, in 38 at least this symptom arose, or 16.6 per cent. From my own experience I can certainly confirm what these figures tell. For the past three years in the Eastern Hospital we have had almost no cases of laryngeal obstruction in which the symptoms have arisen after admission. Antitoxin is injected immediately after admission.

The recognition of this power of checking the disease is exceedingly important. If once the larynx is attacked there is always the chance of having to resort to operative measures which bring their own peculiar dangers. I believe that if only in every case of faucial diphtheria antitoxin were administered sufficiently early the number of laryngeal cases would be reduced to those in which either croup was the first sign of the disease or the larynx was the part first attacked.

EXTENSION OF MEMBRANE TO BRONCHI.

One other fact I will mention in connection with the laryngeal cases which supports the conclusion that antitoxin arrests the membranous formation. I have made an analysis of the causes of death in three series of consecutive cases. The first consists of 131 fatal cases, not treated with antitoxin in 1894; the other two, of 103 and 171 treated with antitoxin in 1896 and 1897 respectively. There are two ways in which diphtheria of the respiratory tract may prove fatal—the one by extension of the membrane to the lungs, leading to suffocation, the other by the setting up of broncho-pneumonia. Of the non-antitoxin cases, 22 died of extension of membrane along the respiratory tract and 21 of broncho-pneumonia; for the antitoxin series the numbers were 3 and 5 of extension of membrane and 4 and 9 of broncho-pneumonia. The figures are given in the following table:

TABLE XI.

In 1894 16.7 per cent. of the fatal cases, and 4.9 per cent. of the total cases died of extension of membrane to the lungs.

In 1896 2.9 per cent. of the fatal cases, and 0.4 per cent. of the total cases died of extension of membrane to the lungs.

In 1897 2.9 per cent. of the fatal cases, and 0.4 per cent. of the total cases died of extension of membrane to the lungs.

In 1894 16.0 per cent. of the fatal cases, and 4.6 per cent. of the total cases died of broncho-pneumonia.

In 1896 3.8 per cent. of the fatal cases, and 0.6 per cent. of the total cases died of broncho-pneumonia.

In 1897 5.2 per cent. of the fatal cases, and 0.8 per cent. of the total cases died of broncho-pneumonia.

Seven of the 8 antitoxin cases of 1896 and 1897 that were fatal from extension of membrane, presented symptoms of this extension before the antitoxin was given. A large proportion of the broncho-pneumonia cases were cases of laryngeal diphtheria, but not all of them.

From these figures it appears that under the antitoxin treatment there has been a considerable reduction in the number of cases fatal from the most painful modes of death in diphtheria.

VARYING RESULTS IN DIFFERENT HOSPITALS.

One word more before I pass from the laryngeal cases. Some critics, and those by no means hostile, still continue to wonder how it is that comparing one set of results with others, say, for example, the tracheotomy results at different hospitals, there is still so much difference between them. For instance, the mortality of the tracheotomy cases varied at the different hospitals of the Asylums Board in 1897 from 31 to 67 per cent., the mortality of all the cases being 40. The causes of the variation in mortality can hardly be shown in a table. It is doubtless due to the variations in the number of toxic cases attended by complications, and of patients admitted late in the disease. But this variation it should be well known was present in the preantitoxin days. At the same hospitals in 1894 the mortalities ranged from 59 to 90 per cent. And as regards hospital statistics, as long as the conditions, especially with respect to the admission of patients, continue as they are, we must still expect this variation. But the difference between the present and preantitoxin times is that whereas then the percentages of recoveries lay between 45 and 10, now they lie between 70 and 30.

(*To be continued.*)

AN INTERNATIONAL TEMPERANCE CONGRESS.—The International Congress for the Prevention of the Abuse of Alcoholic Drinks will hold its seventh meeting this year in Paris, April 4th to the 9th, Dr. Th. Roussel being the Honorary, and Dr. Legrain the Acting, President. Communications should be addressed to the General Secretary of the Congress, Dr. Boissier, 18, Rue de Condé, Paris (Librairie Nathan).

FOUR SERIES OF CASES OF SEWER-GAS POISONING.

BY W. GIFFORD NASH, F.R.C.S.,
Bedford.

THE various diseases of a septic nature which may be produced by sewer-gas poisoning are well exemplified by four series of cases which have occurred in my practice during the last seven years.

FIRST SERIES.

In December, 1891, a lady was confined and attended by Mr. Kinsey at Bedford. The labour was quite normal, but was followed by pelvic cellulitis. When I joined Mr. Kinsey at the end of January, 1892, there was a large mass in the left iliac region of this patient. This gradually disappeared during the next two months, and the patient entirely recovered.

Between the end of January, 1892, and August of the same year, there occurred in this house the following cases:

Acute rheumatism	2 cases.
Diphtheria	1 case.
Follicular tonsillitis	2 cases.
Otitis media	2 cases.

making, with the case of pelvic cellulitis, altogether 8 cases which might have been caused by sewer gas.

The cases of rheumatism were cases of acute arthritis, that is, there was inflammation of certain joints of a nature which could not be distinguished from acute rheumatism. The case of diphtheria was a severe membranous tonsillitis, which could not clinically be distinguished from diphtheria, but, as the membrane was not examined bacteriologically, it is not certain that it was true diphtheria.

One of the ear cases was most interesting. It occurred in a boy aged 12, who had had otorrhœa for five years. After a box on the ear he suddenly developed signs of acute meningitis. The mastoid cells and antrum, the middle fossa of the skull, and the lateral sinus were explored without obtaining anything very definite of a septic nature. Double disseminated pleuro-pneumonia followed of a most serious nature. After a desperate illness of three months' duration the boy recovered. During this long illness I repeatedly asked to have the drains examined, but could not get it done. At last the drains overflowed, and it was found that the Buchan trap was full of sewage and the drain behind it completely choked. Sewage had also regurgitated into the soft water tank. The block in the drain must have existed a very long while.

SECOND SERIES.

The second series occurred in 1893, in a family who lived in a crowded and dirty cottage. Exactly opposite the house was a drain ventilator in the middle of the road. The children were constantly playing over this and sitting on the doorstep within a few feet of it. There were 5 cases of illness within four months.

CASE I occurred on May 24th. 1893. A girl of 13 developed acute lobar pneumonia. She was removed to hospital, and recovered.

CASES II and III.—On June 27th a girl aged 11 and a boy aged 3 developed severe follicular tonsillitis, from which they recovered.

CASE IV.—On July 18th a boy aged 6 developed acute nephritis. He was removed at once to the hospital, and recovered.

CASE V.—In August a baby of 7 months had a severe attack of gastro-enteritis, and recovered.

After this, acting on my advice, the family moved to another house, where, although they have retained their dirty habits, they have never had any serious illness beyond occasional attacks of diarrhœa and influenza.

I believe all these five cases had a common cause, which most probably was sewer gas from the drain ventilator.

THIRD SERIES.

The third series of cases occurred in 1898.

CASES I and II.—Two boys developed measles on March 9th. One of them, N. P., developed otitis media; the other, H. P., developed bronchitis. On March 26th, when they were nearly well, N. P., who had otorrhœa, scratched a pimple on his forehead and developed erysipelas. His temperature was 105.2° that evening. Next day it was nearly normal. The same day H. P. developed follicular tonsillitis, which lasted a week.

CASE III.—Their aunt, G. H., who was looking after them, had a cracked thumb, and on March 28th felt a pain in it. I saw her twelve hours later, and at once incised the thumb down to the bone. The incision was not felt, neither did it bleed, showing the intensity of the inflammation, which in twelve hours had destroyed the life of these soft tissues. Cellulitis spread over the front of the wrist and lymphangitis up the arm to the axilla, where the glands became enlarged and tender. Two incisions were made over the front of the wrist down to the tendons, but no pus was found. There was very high fever—104°. Eight injections of 10 c.cm. of antistreptococcus serum obtained from Mr. Bokenham were given, two on April 6th, three on April 7th, two on April 8th, and one on April 9th. After these the temperature fell for a time. Cultures from the original wound in the thumb showed streptococci and staphylococci. There was no sign of suppuration until April 13th, when an abscess was opened on the front of the wrist. On April 15th an abscess was opened over the right sacro-iliac joint and another under the right pectorals, which pointed anteriorly. On April 20th an abscess under the muscles attaching the right scapula to the spine was opened, and a small superficial abscess at the seat of one of the serum injections. On April 23rd another abscess over the wrist was opened, and lastly, on May 13th, a counter-opening was made in the right axilla to drain the subpectoral abscess. On May 16th the temperature fell to normal, and has not risen again. There were never any internal complications.

CASE IV.—On April 12th, D. P., a sister of the boys, developed acute otitis media, and on April 15th, N. H., a sister of the aunt, who had come to help with the nursing, also developed follicular tonsillitis. The deposit from her throat was examined by Dr. S. J. Ross, who cultivated both a streptococcus and staphylococcus pyogenes aureus from it. On May 14th—two days after getting wet—this patient developed acute synovitis of the left knee and swelling over the left ankle, apparently rheumatic. This quickly subsided with rest and salicylate of sodium. The drains were examined and two escapes of sewer gas found. The water-closet was foul and the house was not in a clean state owing to the presence of several dogs.

FOURTH SERIES.

This series occurred since I recorded the previous series in a paper read before the South Midland Branch of the British Medical Association at the meeting held at Wellingborough on October 6th, 1898.

CASE I.—On October 16th, 1898, I saw a maidservant with subacute arthritis of knees and ankles, which I attributed to rheumatism. A few days later she developed a sore throat.

CASE II.—On October 30th I saw a girl, aged 8, suffering from double otorrhœa and acute inflammation of the mastoid antrum. Three or four days previously she had symptoms of influenza, and to this I attributed the ear complications.

CASES III and IV.—During the following week two other children—a boy aged 7 and a girl aged 10—had sore throats, which were also put down to influenza. I did not see them.

CASE V.—On November 9th I saw a child of 18 months with a severe herpetic eruption on the chin and under the jaw. The child objected to being moved, and a small boil was found on the outer side of the left thigh. This was fomented, but a large abscess formed beneath the subcutaneous fat, and was opened on November 13th.

CASE VI.—On November 16th the mother of these children developed a membranous tonsillitis.

CASE VII.—On November 21st the trained nurse in attendance developed symptoms of influenza. She was removed from the house at once, and on November 23rd had well-marked follicular tonsillitis.

At first I attributed these cases to influenza, but when the baby developed an abscess, streptococcus poisoning from drains was suspected. The drains were examined, and as many as seven escapes were found. The baby's abscess would appear to have been caused by washing in soft water obtained from a tank into which sewer gas freely escaped. It is possible that there may have been a combination of influenza and sewer gas in this series of cases.

REMARKS.

In these four houses the following diseases were apparently caused by exposure to sewer gas:

1. Pelvic cellulitis, 1 case.
2. Diphtheria (?), 1 case, not tested bacteriologically.
3. Follicular tonsillitis, 10 cases.
4. Otitis media, 5 cases.
5. Erysipelas, 1 case.
6. Pleuro-pneumonia, 1 case.
7. Lobar pneumonia, 1 case.
8. Poisoned thumb and septicæmia, 1 case.
9. Acute arthritis—rheumatism, 4 cases.
10. Acute nephritis, 1 case.
11. Gastro-enteritis, 1 case.
12. Abscess, 1 case.

1. *Pelvic cellulitis* is well known to arise from septic infection and every obstetrician knows the danger of confinements in badly drained houses.

2, 3. *Septic throats* are the commonest of all diseases due to sewer-gas. At one time I knew a boarding-house where follicular tonsillitis was constantly occurring in one of the dormitories, and most of the boys had chronic enlargement of the tonsils. An addition of 6 feet to a ventilating pipe near the window of this dormitory has entirely got rid of the occurrence of tonsillitis in this house.

4. *Otitis media* occurs as a sequela of tonsillitis and pharyngitis caused by sewer gas.

5. *Erysipelas* can be caused by the germs which are the septic agents in sewer gas, and in the case related these no doubt gained entrance through an abraded pimple.

6. *Pleuro-pneumonia.*—The case of pleuro-pneumonia appeared to be caused by the otorrhœa becoming septic from the introduction of sewer gas. In the absence of thrombosis of the lateral sinus it was thought that probably there was septic thrombosis of the petrosal sinuses. The scattered character of the pneumonia seemed to indicate an embolic origin.

8. *Septicæmia.*—This case was caused by the introduction of streptococci and staphylococci, which were obtained apparently from the case of erysipelas. It appears that the poison which in one person produces erysipelas, in another will produce septicæmia, and in another ordinary suppuration. This patient, G. H., for several days after infection seemed quite unable to produce pus; no pus formed until after the serum injections, and when the local abscesses did occur the dangerous symptoms subsided.

9. *Acute Arthritis or Rheumatism.*—Rheumatism appears to be a disease of doubtful origin. According to Fagge, the only well-recognised cause is getting wet or exposure to wet weather. The name has been applied to the cases of acute synovitis which follow scarlet fever, and also to those caused by the presence of the gonococcus in the joints. I have often thought that many of the cases of acute arthritis which go by the name of acute rheumatism are in reality cases of septic infection. It is possible that acute rheumatism is produced by the entrance of some germ into the body, which either gains entrance into the joints and there sets up a local inflammation, or which grows elsewhere—for example, in the tonsils and pharynx, and produces a toxin which causes the joint affection. The exposure to wet and cold may be merely the determining cause, as it so often is in an attack of influenza. One cannot help being struck by the similarity of the symptoms of acute rheumatism and septicæmia. In both we may get sore throat, fever, sweating, inflammation of joints, heart, veins, lungs, and serous membranes.

Dr. Newsholme, in his Milroy Lectures at the Royal College of Physicians in 1895,[1] on the Natural History and Affinities of Rheumatic Fever, stated that "Rheumatism is a specific febrile disease caused by the introduction from without and multiplication in the system of a pathogenic micro-organism." "With regard to the nature of the infecting micro-organism the evidence at present is incomplete and unsatisfactory." He stated that according to Dr. J. K. Fowler, "sore throat preceded 80 per cent. of the cases of rheumatic fever." If the infecting organism of rheumatism gains entrance through the tonsils and pharynx, it is exactly what happens in scarlet fever, which often is complicated with rheumatic symptoms.

As regards the incubation of acute rheumatism, Dr. Newsholme could not fix a period. The case of N. H., related above, may throw some light on this. The interval between the attacks of follicular tonsillitis and synovitis was 28 days. The onset of the synovitis, however, may have been determined by getting wet. Observations on the time of occurrence of rheumatism after the throat affection in scarlet fever may throw some light on this subject.

10. *Nephritis.*—In the BRITISH MEDICAL JOURNAL for 1888 Sir G. Johnson recorded several cases of albuminuria due to sewer gas poisoning.

11. *Gastro-enteritis* is often caused by streptococci, which appear to be the active agents in sewer gas.

REFERENCE.

[1] *Lancet*, vol. i, pp. 589 and 657.

ON THE ACTION OF SOME ESSENTIAL OILS AND OTHER VOLATILE SUBSTANCES ON THE GROWTH OF THE BACILLUS TUBERCULOSIS AND IN THE TREATMENT OF PHTHISIS.*

By WILLIAM MURRELL, M.D., F.R.C.P.,
Physician to, and Joint Lecturer on Medicine at, the Westminster Hospital.

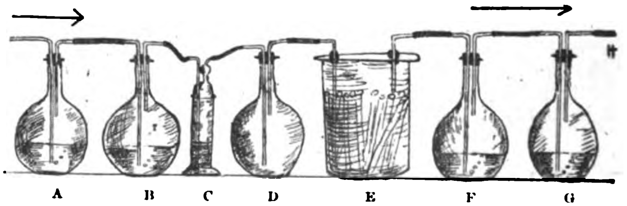
FOR some time past there has been a pretty general belief that certain essential oils when inhaled have the power of retarding the growth of the bacillus tuberculosis. The literature of the subject, although fairly copious, is inconclusive. As it seemed desirable to arrive at some definite result certain experiments were made, partly clinical and partly bacteriological. The two series were carried out simultaneously, and were spread over a period of about two years.

There are many essential oils, and two of them were selected as being typical of the group, the oil of cinnamon and the oil of peppermint.

All essential oils—from the high price they command—are liable to adulteration, but care was taken to obtain pure and reliable specimens. The services of an expert in this department were procured, and he selected two samples which he considered to be above suspicion.

The clinical observations were carried out on twenty patients suffering from phthisis, none of whom were confined to bed. Some were quite in an early stage, and some had cavities in either one or both lungs. In some cases the patients were made to inhale once or twice a day air impregnated with either oil of cinnamon or oil of peppermint, whilst in other cases the patient was given a supply of the material and instructed to inhale it almost constantly both night and day. A kind of "bib" was devised on which the oil was sprinkled, and this was worn suspended from the neck, so that the air taken into the lungs was constantly impregnated by the vapour. It would serve no useful purpose to give details of these cases, as the results were uniformly unfavourable, and after a trial extending over a period of six months the treatment had always to be abandoned in favour of some other method. The clinical results were undoubtedly a failure, and it was with some anxiety that the conclusions of the bacteriological investigations were awaited. These experiments were undertaken by Dr. Blaxall in the bacteriological laboratory of the Westminster Hospital Medical School, and the details of the method adopted will now be explained.

The apparatus used for these experiments was as follows:



A and G. Flasks containing 1 in 1,000 mercury perchloride. B and F. Flasks containing sterilised distilled water. C. Gas-washing bottle containing experimental fluid. D. Sterilised empty flask. E. Jar containing tubes inoculated with tubercle bacilli. The arrows indicate the direction of the current of air. H. Connection through wall of incubator with water pump.

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* Towards the expenses of this research a grant was made by the British Medical Association on the recommendation of the Scientific Grants Committee of the Association.

A flask A, containing a 1 in 1,000 solution of perchloride of mercury, was fitted like a wash bottle—that is, with two pieces of glass tubing bent at right angles. The longer limb, the lower part of which was immersed in the fluid, communicated with the outside air. The shorter limb connected the flask with flask B, containing sterilised distilled water, fitted in the same way and connected by its shorter limb with a small gas washing bottle C, which held the fluid to be experimented with. This gas bottle again communicated with an empty sterilised glass bottle D, and this again with a large sterilised glass jar E, covered with an air-tight disc perforated with two holes, through which the ingress (opening at the bottom) and egress (opening at the top of the jar) tubes passed. One egress tube passed thence to a wash bottle containing sterilised distilled water F, similar to B, and thence to a wash bottle containing a solution of 1 in 1,000 perchloride of mercury G. The whole of this apparatus was contained in an incubator kept at 37° C. constantly. The egress tube from flask G was connected through a perforator in the incubator with a water pump. The water pump being set in motion, air would enter flask A, and be freed of its organisms in passing through the mercury solution, thence pass to flask B, where any possible splashings of the mercury solution would be taken up, and thence to the gas bottle C. Here the air would become impregnated with the volatile oil or chemical experimented with, and, passing on to the empty flask D, would leave there its superfluous moisture, and enter the jar E. The current of air would then pass through the wash bottles F and G, and thence to the water pump. The two flasks F and G were intended to act as a check to the outgoing of the volatile oil in the impregnated air, and also to prevent any return current of air from the water pump. Any leakage in the apparatus could at once be seen by the cessation of bubbling in one or more of the flasks.

The apparatus was used in this way: A dozen sterilised tubes, each of blood serum 6 per cent., glycerine agar-agar, and 6 per cent. glycerine beef broth were inoculated carefully from a recently-isolated culture on glycerine agar-agar of the B. tuberculosis. Two tubes each of these culture media thus inoculated were at once hermetically sealed with paraffin to serve as controls, and these tubes, with eight other tubes of each culture medium, were placed in the sterilised jar E. The remaining two tubes of each medium were capped with india-rubber caps and placed in a distant incubator, to serve as further controls. The aspirating apparatus was then started, the air bubbling through the liquid in the flasks and through the experimental fluid in the gas bottle D, so that through the jar E circulated a current of air permeated with the vapour of the experimental fluid. The jar E at this time contained eight tubes of each medium inoculated with a pure culture of tubercle bacillus, plugged only with their sterilised cotton-wool plugs, and two tubes of each medium similarly inoculated, but hermetically sealed with paraffin. After twenty-four hours the jar was disconnected, and under a sterilised cover the cotton-wool plugs from the eight tubes of each culture medium were expeditiously removed. The lid of the jar was then carefully resealed, the apparatus connected, and the aspiration restarted, so that now the eight tubes of each medium inoculated with tubercle bacilli were fully exposed to the influence of the experimental fluid. Forty-eight hours from this time the aspiration was stopped, the jar disconnected, and one tube of each culture medium carefully withdrawn under cover, plugged with sterilised cotton-wool, capped and placed in the distant incubator to await growth. The apparatus was then reconnected and the aspiration restarted, and after another 48 hours or 96 hours from the start, two tubes of each medium were withdrawn under the same conditions and placed in the distant incubator. The aspiration was then continued till the tenth day, when the apparatus was disconnected and all the tubes were withdrawn, plugged, and placed in the distant incubator, and with them those controls that had been hermetically sealed in the jar.

Here it may be stated that the hermetically sealed control tubes in the jar and the controls placed from the first in the distant incubator all grew well, so that no difference could be established between them either in vigour or in rapidity of growth. Hence hereafter it will be necessary only to speak of them jointly as the controls. The first experiment was made with the essential oil of cinnamon, a specimen of known and reliable quality. One ounce of this pure oil was placed in the gas bottle D, so that the current of air bubbled through it. In this experiment five of the tubes exposed to the circulating air became contaminated with moulds, and were therefore discarded. A fortnight after the date of inoculation of the tubes the growth of the organism of the different culture media was compared with that on the controls, and no retardation or want of vigour was noticed. Again at three weeks the comparison was made, and at four weeks. At this period all the tubes controls and exposed tubes showed a vigorous growth, and no differences could be established between one and another. From the fluid cultures subcultures were made, and after a month had elapsed both control tubes and the exposed tubes had given equally vigorous growths. The apparatus was then resterilised, and a fresh batch of tubes of each medium inoculated, and the experiment with the cinnamon oil repeated exactly as before.

In this second experiment only one tube became contaminated (by a mould), and the results were precisely the same as in the first experiment. The vapour of oil of cinnamon exerted no retarding or inhibitive influence on the growth of the tubercle bacillus. Here it may be stated that the whole apparatus smelt most strongly of cinnamon, and the exposed tubes were redolent of the oil for months afterwards.

The third experiment was conducted in precisely the same way except that the pure oil of peppermint was used. In this experiment only one tube became contaminated. The results were the same as in the previous experiments, all the inoculations growing well, and showing no signs of retardation or enfeeblement. Subcultures from the fluid cultures gave in every case successful results.

The fourth experiment was a repetition of this. In this case three tubes became contaminated with moulds, but in every other respect the results were the same as in the previous experiment. The essential oil of peppermint showed no deleterious influence on the growth of the tubercle bacillus. In this case also the smell of the oil was most intense, and clung to the exposed tubes for a very long period.

The essential oils having proved useless experiments were made in other directions, and after many failures formaldehyde, or formic aldehyde CH_2O, obtained by the oxidation of methyl alcohol, was adopted. A 40 per cent. aqueous solution was used, and it was found that the majority of patients could inhale a 1 in 16 spray of this solution without inconvenience. Bacteriological investigations were undertaken with a 6 per cent. solution of formaldehyde, and the results proved most satisfactory as regards its action on the bacillus tuberculosis.

A 6 per cent. solution was made up with sterilised distilled water, and an ounce of the solution placed in the gas bottle, so that the air bubbled freely through it. The experiment was conducted in precisely the same manner as the foregoing ones, with the exception that some of the tubes were inverted in the jar. The results were:

(*a*) That no contaminations occurred in any of the tubes.

(*b*) That all the controls grew well except in one agar-agar tube sealed with paraffin in the jar; in this case the plug had been forced out and loosened and no growth occurred.

(*c*) That neither the tubes kept under the influence of formaldehyde vapour for forty hours, for ninety-six hours, or for ten days showed any growth whatever.

(*d*) Subcultures were made from several tubes of the solid media and from all the tubes of fluid media; all of these failed with the exception of one glycerine beef-broth tube exposed for forty-eight hours, which, reinoculated on to blood serum, commenced after three weeks to grow feebly. This growth, however, did not progress, and subcultures made six weeks afterwards entirely failed.

After re-sterilisation of the apparatus, the next experiment was proceeded with, being a repetition of the previous one. In this instance no contaminations occurred in the tubes. An alteration was made in this experiment. Tubes were removed from the jar after two days' exposure to the formaldehised air, after four days, after six days, and after ten days. None of these tubes showed any growth up to six weeks from the date of inoculation, but after that date two tubes of 6 per cent. glycerine agar exposed for two days (or forty-eight hours) commenced to grow; one developed a very meagre growth, the other a fairly vigorous growth, and both were subcultured with success. None of the other tubes showed any signs of development, and subcultures from them all failed with the exception of a 6 per cent. glycerine beef-broth tube, which, after exposure for forty-eight hours, was carried on successfully.

From these experiments it is seen that even a weak solution of formic aldehyde, such as 6 per cent., exerts a very marked retarding and inhibitive influence on the growth of tubercle bacilli inoculated on to favourable culture media, and that this influence prolonged over forty-eight hours entirely prevents the growth and future development of the bacilli.

In these experiments no attempt was made to estimate the amount of the volatile vapour in any given quantity of the circulating air at any given time. In the case of the formic aldehyde experiments, the irritating odour of formic aldehyde was most marked in the earlier stages of the aspiration, and diminished as the experiment neared conclusion. The possibility that the formaldehised air might condense on the under surface of the disc of the jar, and fall into the open test tubes, was obviated by inverting some of the tubes.

The clinical results of the formic-aldehyde treatment are quite in accord with the results of the bacteriological observations. A 6 per cent. solution was as a rule employed, but this was increased or decreased according to the idiosyncrasy of the patient. In most cases the drug was inhaled either once or twice a day, compressed air by a simple mechanical arrangement being made to bubble through the solution. This gave the best results. In other cases, in hospital practice especially, the "bib" method was employed.

The drug in many cases caused irritation at the back of the throat, and sometimes induced violent paroxysms of cough. Twenty cases of phthisis were treated by formic aldehyde, and in six of them the results were inconclusive, either because the patient was lost sight of or because other methods were resorted to in addition. For example, in 3 cases injections of Tuberculin R were given, and these had to be discarded. In the remaining 14 cases nothing but the formic aldehyde was administered, with the exception of an occasional pill of $\frac{1}{60}$ grain of picrotoxin to check the night-sweating. Of the 14 cases, 12 were much benefited, whilst 2 only slightly improved. Both the unsuccessful cases were men, and both presented the physical signs of cavities or of extensive breaking down on both sides. Of the 12 successful cases, all of which were much improved, 5 were men and 7 were women. Of the 5 men 3 had cavities at both apices, and the other 2 had marked signs of consolidation at the left apex. Of the 7 women 3 had breaking down of both lungs, and 4 had consolidation of one lung only. One man and one woman had, in addition to the lung symptoms, tuberculous ulceration of the larynx. Some of these patients had previously had inhalations of oil of cinnamon or oil of peppermint without benefit. It is impossible to record all these cases in detail, but a brief outline is given of a few typical instances.

CASE I.—Mr. M., aged 46, was first seen on November 25th, 1896. His family history was a bad one. He had had a cough with expectoration for some months, was rapidly losing flesh, and had profuse night sweats. His evening temperature ranged from 100.5° to 102°. At the left apex in front was bronchial breathing with abundant moist *râles*. Specimens of the expectoration were submitted to Dr. Blaxall, who reported: "Both specimens contain tubercle bacilli. The bacilli are very slender and in clumps and fairly numerous. I should consider it to be an early case rather fiercely attacked, and should imagine that the prognosis was very unfavourable." The patient was placed on the formic-aldehyde treatment and had an inhalation almost daily until the end of February. The expectoration was examined twice a week, but the bacilli, although fewer in number, were always present. The patient's condition speedily improved, the night sweating ceased; he gained in weight, and in March, 1897, was free from cough and expectoration. A corresponding improvement took place in the physical signs in the chest. He has been seen from time to time during the last eighteen months and carefully examined. The whole condition is now perfectly quiescent and he is apparently in perfect health and is able to do his work and enjoy life. He lives in England and has not found it necessary to winter abroad. The notable point about the case is that as long as there was any expectoration it contained bacilli.

CASE II.—L. B., aged 25, married, came to the hospital on January 25th, 1898. She had had a cough for six months. The expectoration was thick and yellow, and was found by Mr. W. J. Quicke to contain the bacillus of tubercle in abundance. She had had no hæmoptysis, but had been losing flesh rapidly, and weighed only 6st. 13lbs. At the left apex there was deficient movement, with well-marked dulness, bronchial breathing, and moist sounds. She was placed on general treatment, with cod-liver oil, but continued to lose flesh. On July 8th she was given a 10 per cent. solution of formic aldehyde, and told to inhale it freely from a piece of lint both night and day. On this she rapidly improved, and on August 30th the strength of the formic-aldehyde solution was doubled. During a portion of this time she was still taking the cod-liver oil. On September 13th the physical signs were dulness at the left apex, with bronchial breathing, and few moist sounds. The expectoration, which was slight, still contained bacilli, but in much smaller numbers. The patient's general condition had, however, markedly improved, and she had gained 7 lbs. in weight. On November 22nd she was seen again, and was found to have still further improved. This is a less striking case than the last, but there was no doubt that the patient derived considerable benefit from the treatment.

CASE III.—Mrs. B., aged 26, a housekeeper, was first seen on May 24th, 1898. She had had a bad cough with expectoration for six months, and had been rapidly losing flesh. For one month her voice had been very husky, and towards the end of the day she was practically inaudible. Her expectoration contained bacilli in large numbers. She had cavernous breathing at the left apex with large bubbling rhonchus, and there was also crepitation scattered all over the right back. My colleague, Mr. P. de Santi, examined her larynx, and reported that the left vocal cord was stationary, probably due to infiltration of tuberculous matter. Active treatment was not commenced at once, but on May 31st she was given a 40 per cent. solution of formic aldehyde, and told to place 5 drops on lint every four hours and inhale it. This quantity after the first week was increased, and by the use of the "bib" the treatment was kept up practically night and day. On June 21st the moist sounds at the apex had almost disappeared, and Mr. de Santi reported that the cords were less infiltrated and much more movable. Her voice and general condition had much improved, and she had gained 3 pounds in weight. The treatment was kept up steadily until September 13th, when Mr. W. J. Quicke examined her chest, and reported that there was no crepitation at the left apex, but just an occasional *râle* at the right posteriorly. "but doubtful and not with every respiration." Mr. de Santi's report on the same day was as follows: "Swelling of epiglottis, which at last examination was infiltrated and thickened, entirely gone. Cords quite free; only a slight hyperæmia : before uniform redness. Swelling over arytenoids entirely disappeared. Pallor of palate much less. Phonation good." The patient had increased in weight, she looked well, and was able to do a good day's work. A week later she was seen by Dr. Lemare Bunch, the British Medical Association Research Scholar, who considered that she was a good example of a case of arrested phthisis. On November 17th she reported that she had gained another 4 pounds in weight, and was practically free from cough. She still continues well, and is able to do a full day's work.

CASE IV.—The next case is that of an English physician long resident in the south of Europe. For obvious reasons it is not desirable to disclose his identity or his exact place of abode. He came to see me first on June 27th, 1898, and gave the following history. He had resided out of England for twenty years, and had not been home for fifteen years. He had malaria in February, 1884, and had suffered from it more or less at intervals ever since. He had an attack of influenza in March, 1892, and this left a chronic cough, but there were no definite lung symptoms until November last. Since then the cough had increased in severity and had come on in paroxysms, especially on exertion such as going upstairs or walking uphill. It was attended with much mucopurulent expectoration. The other symptoms were progressive loss of flesh and profuse night sweating. There was almost complete anorexia, and the patient stated that he loathed the sight of food. When first seen he was obviously very ill; he could hardly walk; he was panting for breath, and his voice was little more than a whisper. On examining the chest it was found that there was scattered crepitation all over both lungs, heard back and front, slight but perfectly distinct. There was very little dulness, and there were no indications of a cavity. The expectoration was examined by Dr. Blaxall, who found pus cells and tubercle bacilli in abundance. Mr. de Santi examined the larynx and reported that the cords were congested, but that there was no ulceration. The epiglottis and interarytenoid space were free, and there was some swelling of the mucosa over the arytenoids. The patient was placed on daily inhalations of formaldehyde, and in three weeks had greatly improved both as regards cough and general condition. On July 25th the crepitation was less and the sputum was less viscid and contained fewer bacilli.

At the end of July he went to Cornwall, taking a supply of the formic aldehyde with him. There he made rapid progress and put on flesh. His appetite was restored and the cough ceased to trouble him at night. His dyspnœa was much less, and he was able to walk a couple of miles or more on the level without feeling tired. On September 14th he was seen again, and Mr. de Santi made the following report: "Cords almost uniformly white, otherwise no difference. Voice much stronger; can now produce his usual singing notes, except the highest range." The crepitation had now entirely disappeared. On September 23rd Dr. Blaxall found a few tubercle bacilli, less than formerly. On October 9th the patient wrote: "The chief points of improvement are (1) a gain of weight of 22 lbs. and (2) a great diminution of cough and expectoration. I can now mount stairs with comparative comfort and ease." He has since returned home and has resumed active practice.

My belief is that the best way of treating tuberculous phthisis is to obtain the bacilli from the expectoration, cultivate them, pass over them various volatile substances until one is found which will arrest their growth, and then administer it by inhalation to the patient. This by no means precludes the use of fatty foods and other substances, such as cod-liver oil.

THE SALE OF COCAINE IN THE UNITED STATES.—Ordinances have recently been made in Austin, Texas, and in New Orleans, Louisiana, prohibiting the sale or the giving of cocaine to any person, except by a duly authorised physician, or upon a physician's order; provision is also made for a fine of from 10 dols. to 100 dols. for infringement of the law in Austin, and for a similar fine or imprisonment, or both, in New Orleans.

URIC ACID AND GOUT: SOME POINTS IN THE PHYSIOLOGY OF URIC ACID.

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It has long been known that the part which uric acid plays in disease is highly important, but its exact nature still lacks definition. The relationship which it bears to the various manifestations of acute and chronic gout and other disordered states of metabolism will not be definitely known until we have a fuller knowledge of the part played by it under normal conditions, and of its seat of formation in health. A good deal has of late years been written on this subject, both by physiologists and physicians, but a marked diversity of opinion still exists regarding this fundamental point. As I have for the past year been engaged in an investigation on the seat of formation of uric acid in health, and have obtained results at variance with views lately expressed by some medical writers on this subject, I propose to give a short account of my work and the conclusions derived from it. The investigation consisted in the examination of the blood of birds and that of a snake; also the viscera of birds, snakes, and various mammals.

The main by-product of nitrogenous metabolism in man and mammals is urea, in birds and reptiles uric acid; but in the mammal a small quantity of uric acid is also excreted, the daily amount in man being half a gram. If we bear in mind that it is by no means easy to prepare urea from the blood of mammals, even although the amount of that substance excreted daily is about sixty times greater than that of uric acid, it is not surprising that great difficulty has been experienced in recognising the presence of the latter in the blood of a mammal. For a fuller investigation of the subject we must have recourse to an examination of the blood and viscera of birds and reptiles whose main nitrogenous by-product is uric acid. Here again, however, we must bear in mind that even although uric acid be present in relatively large amount in the urinary excretion, it would not be surprising if the amount present in the blood at a single examination were very small. This is in accordance with the results of previous observers.

Seat of Formation of Uric Acid.

Before passing to a description of investigations it may be advisable to give a short summary of the main views entertained regarding the seat of formation of the substance under discussion. The organs which have been so regarded are: (1) The liver; (2) the kidneys; (3) the spleen, thymus, and other nuclear-holding tissues.

Although it has been customary to speak of the mode of formation of uric acid in birds as distinct from that in mammals, it is not unlikely that there are seats of formation common to both. The largest amount of fruitful work on the subject has been done in the case of birds, owing to the fact that, as more is excreted by them, one expects also a greater formation, although this conclusion is not a necessary one.

The Liver as the Seat of Formation.—With regard to the views held in support of the theory that the liver is the principal seat of production, the work on which these views were based has been carried out mainly on birds. Meissner[1] found a larger quantity of uric acid in the liver than in any other organ, and concluded that this organ was the principal seat of its formation. Minkowski[2] corroborated this conclusion. He found on removing the liver from the circulation of geese, that amido-acids were no longer transformed into uric acid, and the nitrogen appeared in the urine mainly in the form of salts of ammonia. He considered that this splitting off of ammonia always occurred as a precursor of the formation of uric acid. Schroeder,[3] in an important series of observations, showed that in birds and snakes uric acid could be formed outside the kidney. He and other observers, notably Knierien, Cech, Salkowski, and Jaffé, showed that amido-acids, urea, and carbonate of ammonia were transformed in the fowl into uric acid. Schroeder also estimated the amount of the acid present in the different organs, and, finding that the liver contained the largest amount, agreed with Meissner that it is the organ mainly concerned in its formation. Scherer, Cloetta, Grübler, and v. Gorup also recognised its presence in the liver and other organs. The methods employed in their researches were, however, not free from fallacy.

The Kidney as the Possible Seat of Formation.—Zalesky, in 1866, performed certain experiments on hens, geese, and serpents. He first tried the ureters of hens and geese, and found that uric acid was deposited in the tissues. He then removed the kidneys from serpents, and, finding that no uric acid was deposited, concluded that the kidney was the seat of formation. This view, however, was soon contradicted by, among others, Meissner and Chrzonszczewsky. Kolisch,[5] among the more recent workers, also regards the kidneys as the most important of the uric acid-forming organs. He considers that nuclein bases are there transformed into uric acid. No evidence of any weight has been brought forward in support of this view, and his statement that in cases of parenchymatous nephritis the nuclein bases are increased whilst the uric acid is diminished has been shown by numerous observers to be erroneous. Abeles[6] was unable to obtain any production of uric acid by an artificial circulation of its probable precursors through the kidneys. Sir A. Garrod[7] supports the view that uric acid is mainly produced in the kidney because he failed to find uric acid in the blood of birds. Dr. Luff[8] also expresses the opinion that the kidney is the sole seat of formation of uric acid in health. His opinion, like that of Garrod, is based mainly on the assumption that uric acid is normally absent from the blood of birds and mammals.

The Spleen and other Tissues as Probable Seats of Formation.—Numerous observers—notably Scherer, Cloetta, Messner, Grübler, and v. Gorup—have shown that uric acid is present in the lungs, brain, pancreas, blood, and various pathological fluids. In all these cases the identity of the substance was established by its precipitation out of hydrochloric acid solution and the application of the murexide test to the deposit. It was not, however, until Horbaczewski[9] showed that the acid could be formed from nuclein-holding tissues, that great attention was directed to other parts as the probable seat of its formation. He showed that uric acid could be formed by allowing blood to digest with splenic tissue under conditions admitting of free oxidation. Similar results were obtained by digesting nuclein and nucleic acid under the same conditions. The work which led up to Horbaczewski's experiments was that of Kossel and his pupils, who showed the intimate connection between the nucleins and those bases that possess the same alloxan nucleus as uric acid—namely, the alloxur or nuclein bases. In view of Horbaczewski's experiments, it is very surprising that Stadthagen[10] failed to find uric acid either in the normal or leucocythæmic spleen; although in both cases, but especially in the latter, a very large amount of alloxur bases were present. Bockendahl and Landwehr corroborated Stadthagen's statement as to the absence of uric acid from the spleen in leucocythæmia. Scherer[11] is in fact the only investigator who has obtained it from this organ in that disease. I may here add, although I shall refer to this in a later paper, that I also have found uric acid in the leucocythæmic spleen, and that in appreciable quantity.

From the foregoing it is evident that our knowledge of the true seat of formation of uric acid is as yet very uncertain. There is still a marked difference of opinion on such a fundamental point as the existence of uric acid even in the blood of birds and reptiles, while of course still greater doubt exists as to its presence in mammalian blood and tissues. That being so, it seemed advisable to repeat some of the observations previously made, using the more modern methods of examination. I have accordingly examined the blood of birds, a snake, and mammals, and thereafter the viscera of these animals in the manner described.

Examination of the Blood.

The defibrinated blood was obtained fresh and examined as follows: The albumen was first removed by diluting the blood with seven to eight times its volume of water, heating to boiling point, acidifying with a few drops of acetic acid, filtering, and finally extracting the coagulum with boiling water. A clear filtrate was obtained and evaporated to dryness, at first on the open flame, and then on the water bath. The residue was then extracted with a large quantity of boiling water and filtered. The phosphates in the solution were precipitated by ammonia and magnesia mixture, and removed by filtration. Silver nitrate solution (30 grams to a litre) was then added until no more precipitate appeared, care being taken that the mixture was strongly ammoniacal. This was then set aside in a dark place for an hour or more, and thereafter filtered by means of a suction pump, the precipitate being washed free from chlorine by the use of weak ammoniacal solution. The magnesium silver urate was then decomposed by passing through it a stream of H_2S in acid solution. The fluid was now brought to boiling point and filtered. The clear filtrate thus obtained was evaporated down to about 5 c.cm., at first on the open flame and finally on the water bath. A few drops of hydrochloric acid were then added, and the fluid set aside for twenty-four hours to allow the uric acid to crystallise out. The following tests were then applied for the determination, qualitatively and quantitatively, of the acid.

1. The deposit was submitted to microscopic examination.
2. The murexide test was applied, after purification.
3. The sediment, when weighable, was collected on a filter paper previously dried and weighed, and the total weight ascertained.
4. The nitrogen in the deposit was estimated by Kjehldahl's method and expressed in terms of uric acid. This served as a valuable check on the weight previously recorded, and indicated whether the substance in question was practically pure uric acid or not.

A point of importance has to be noted in the above application of the murexide test. If the sediment has not previously been washed chlorine free this test is fallacious, as it is so easily confused with Weidel's xanthin reaction. In every case, therefore, the deposit was washed chlorine free and the amount of wash water measured, 10 c.cm. being estimated as equivalent to 0.5 mg. uric acid.

I here tabulate the results obtained from the examination of the blood of birds and other animals.

Birds.

			Total Uric Acid.	Percentage.
Obs. 1	Duck	1,750 c.cm.	0.0352 gram.	or 0.0020 gram.
„ 2	Goose	1,650 „	0.0428 „	or 0.0025 „
„ 3	Turkey	1,500 „	0.0328 „	or 0 0021 „

Note.—50 c.cm. of duck's blood were also examined and gave a positive esult as regards the presence of uric acid. The sediment obtained was xceedingly scanty, but showed microscopically a few lozenge-shaped and hombic crystals, which gave a distinct murexide reaction. No further xamination was available.

Snake.

4. Blood and Heart.—On account of the very small quantity of blood present in the snake, it was considered advisable to remove the heart and large vessels with the contained blood and examine as a whole. A very fine deposit was obtained, which gave a distinct murexide reaction. The amount, calculated from the nitrogen obtained was 0.0031 gram, including 0.6 mg. from the wash water used.

Mammals.

5.	Lamb	1,100 c.cm.	A distinct though delicate murexide reaction was obtained.
6.	Dog	500 „	No trace of uric acid was obtained from this examination.

EXAMINATION OF THE ORGANS OF BIRDS AND MAMMALS.

The liver, kidney, and spleen of various birds and other animals were then examined. The details of the method of examination are as follows: Each organ was finely minced and weighed, and a small quantity taken for the estimation of the water percentage. The uric acid was extracted by the addition of a large quantity of boiling water, the whole being brought to boiling point and a few drops of acetic acid added to ensure complete coagulation of the albumen. The contents were filtered, the filtrate being then evaporated down almost to dryness, at first on the open flame, and later on the water bath. The residue was extracted with a large quantity of boiling water and filtered. Thereafter the procedure was as already described for the examination of the blood. The following is a note of the observations made, the weights recorded representing the amount present in the organs, water free.

Birds.

				Total H_2U.	Percentage.
			Grams.	Gram.	Gram.
Obs. 1	Turkey	Liver	34.0	0.0230	or 0.0676
		Kidney	6.7	0.0122	
		Spleen	0.6	None	
„ 2	Turkey	Liver	43.0[1]	0.0702	or 0.1628
		Kidney	3.5	0.0026	
		Spleen	0.6	None	
„ 3	Duck	Liver	28.0	0.0180	0.0642
		Kidney	2.5	0.0025	—
„ 4	Hen	Liver	16.5	0.0101	0.0612
„ 5	Hen	Liver	12.8	0.0196	—
		Spleen	1.1	None	—

[1] The 43 grams above stated include 9 grams of hen's liver received along with the turkey's viscera.

Snake.

				Total H_2U.	Percentage.
			Grams.	Gram.	Gram.
Obs. 6	Snake	Liver	8.5	0.0066	—
		Kidney	2.8	0.0031	—
		Spleen	—	None	—
		Lung	—	„	—
		Intestine with its contents	—	0.0375	—

Note.—At one stage of the examination of the intestine rather more than half the total fluid was inadvertently lost. The large quantity of uric acid present in the remainder was striking.

Mammals.

				Total H_2U.	Percentage.
			Grams.	Gram.	Gram.
Obs. 7	Sheep	Liver	173.0	0.0227	or 0.0131
		Kidneys	23.0	None	—
		Spleen	14.0	Mere traces	—
„ 8	Sheep	Liver	206.0	0.0209	or 0.0101
		Kidneys	12.0	None	—
„ 9	Calf	Liver	656.0	0.0467	0.0071
		Kidneys	65.0	None	—
		Spleen	51.0	0.0110	0.0215
„ 10	Calf	Kidneys	78.0	0.0045	0.0057
		Spleen	72.0	0.0115	0.0159
„ 11[1]	Dog	—	—	—	—
„ 12	Rabbit	Kidneys	3.7	None	—

[1] The liver, kidneys, spleen were examined, and revealed no trace of uric acid.

The results of these investigations may now be summarised:

BIRDS.—Uric acid was found in the blood, liver, and kidneys. The absolute amount was greater in the liver than in the kidney.

SNAKE.—Uric acid was found in the heart which contained a relatively large amount of blood, liver, kidneys, and intestinal contents, the absolute amount being greater in the liver than in the kidney. A relatively large amount was found in the intestinal contents.

MAMMALS.—A. *Dog and Rabbit.*—In the dog the blood, liver, kidneys, and spleen contained no uric acid. A similar result was found with the kidneys of a rabbit.

B. *Sheep and Calf.*—Mere traces of uric acid were found in the blood of a lamb.

With regard to the viscera of these animals three points have to be noted:

1. The absolute amount in the liver was greater than that in the other organs.
2. The kidneys contained less than the spleen, both as regards absolute amount and percentage.
3. The spleen seemed to contain a higher percentage than the other two organs.

CONCLUSIONS.

It is not my intention to draw from these results any conclusions as to the seat of formation of uric acid. I propose to continue the investigation, and meanwhile avoid making any theoretical deductions from the results already obtained. I have satisfied myself, however, as to the following two points:

1. That uric acid is present in the blood of birds.
2. That as far as my observations go, there is no evidence in support of the view advanced by Garrod and Luff that the kidney is the main seat of formation of uric acid.

In conclusion I must in the first place express my indebtedness to Professor Rutherford for allowing the research to be carried out in his laboratory, and for valuable suggestions in connection with it. I have further to express my special indebtedness to his assistant, Dr. T. H. Milroy, for much valuable assistance throughout the whole investigation. I am also indebted to Dr. Selby, Wigtonshire, for the large quantities of blood examined, and to Professor Mettam, Veterinary College, for kindly giving me the viscera of the snake. The expenses incurred in the investigation were covered by a grant received from the Moray Research Fund of this University.

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ON BELLADONNA IN THE TREATMENT OF BRONCHO-PNEUMONIA IN CHILDREN.*

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I WILL preface what I have to say by stating that I hold to the prevalent belief that there is an essential difference between croupous pneumonia and broncho-pneumonia in children. Cases, it is true, are not uncommon in which, judging from the physical signs alone, there may be extreme difficulty at the outset in determining to which class, croupous or catarrhal, they rightly belong. This difficulty doubtless arises from the fact that a well-defined patch of croupous pneumonia in young children is apt to be accompanied by small patches of collapse, and subsequent consolidation, in the immediately surrounding pulmonary tissues. Here the signs of broncho-pneumonia may complicate, or follow upon, those belonging to a case essentially of the croupous form at the outset of the illness. The course or termination of the attack, in the vast majority of instances, generally helps to clear up any hesitation in deciding as to the variety to which they mainly belong. Apart from such doubtful, or rather mixed, cases, however, in which there may be temporary room for doubt in classification, there is a vast majority of typical cases in each section, in which the initial symptoms, the course of the complaint, the parts of the lungs affected, the physical signs, the termination, and sequelæ are sufficiently distinct to differentiate sharply between them.

For these reasons I am not inclined to agree with some views recently put forward as to the identity of the two complaints in children. These views, too, are mainly founded on bacteriological grounds, and, in my opinion, the bacteriology of either form is not as yet sufficiently established to upset the prevalent belief in the distinctive character of the two complaints. As furnishing one criterion between them, I might appeal to the totally differing mortalities in the two forms of the complaint. At the Shadwell Children's Hospital, even with weakly East End children, a mortality of 10 per cent. would be above the mark in cases diagnosed as croupous pneumonia. In contrast with this, in cases diagnosed as broncho-pneumonia the mortality has generally, in children under the age of 2 years at least, ranged from 60 to 80 per cent. This increased mortality, if it establishes nothing else, sufficiently demonstrates the greater gravity of cases diagnosed by several observers as broncho-pneumonia over those diagnosed by the same set of observers as belonging to the croupous form.

There is a wide difference, too, in the treatment of the two complaints. In the majority of cases of croupous pneumonia all that is needed is careful nursing and feeding, any active interference on the part of the physician being seldom called for. On the other hand, in the majority of cases of catarrhal pneumonia every remedy that experience or ingenuity could suggest has been invoked. Foremost among these have been such measures as steam tents, inhalations of oxygen heated over steam coils or given cold, injections of strychnine, alcohol in large doses and other drug stimulants, dry cupping, leeching, and emetics. With such active treatment, doubtless many a life has been saved. But in spite of all these, coupled with the most devoted attention of the nursing and resident medical staffs, our mortality in broncho-pneumonia remained appallingly high. Any remedy that would serve to diminish this mortality deserves consideration. Such a remedy we think at present we have found at Shadwell, in somewhat large doses of belladonna.

It is known, although I believe not as widely or generally as its importance deserves, that cases of that very fatal sequela of diphtheria—paralysis of the diaphragm—can often be cured by pushing belladonna or atropine to their full physiological limits. Since using belladonna or atropine in full doses a large proportion of such cases have recovered. For the knowledge of this property of belladonna I am indebted to several members of the staff of the Great Ormond Street Hospital. From no one, however, could I gain any satisfactory explanation as to how the drug acted. The only one afforded me was that belladonna in some way stimulated the respiratory centre, and so the effect of the diaphragmatic palsy was counteracted by over-exertion on the part of the other respiratory muscles.

To me, I confess, such an explanation was far from a convincing one. I could not conceive any drug acting continuously as a stimulant on the respiratory centre for the three or four days during which the greater stress of the palsy lasts, without there being corresponding times when this hyper-stimulation would be replaced by depression and its attendant evils. Whilst, then, accepting the fact of the beneficial action of belladonna in palsy of the diaphragm, I was compelled to leave any explanation of its mode of action to the unsatisfactory region of the empirical.

About a year ago, however, renewed attention was called, I think by Dr. Ringer, to the marked effect atropine had in limiting or diminishing secretion into the bronchial tubes and pulmonary tissues. It was pointed out that numerous patients recovered from the immediate effects of an operation, merely to die in three or four days choked by the undue effusion into the bronchial tubes, induced by the action of the ether or other anæsthetic used at the time of operation. For the prevention of this water-logging of the lungs from the anæsthetic it was proposed that patients for several days after operation should be treated with atropine or belladonna. Such a practice is, I believe, carried out in a routine manner in at least one large London hospital.

This view of the action of belladonna seemed to me to furnish the explanation wanted of its beneficial action in diphtherial paralysis of the diaphragm. Belladonna, I would suggest, has no direct influence on the course of such paralysis, it merely prevents or diminishes the secondary pulmonary effects consequent on it, and so staves off an impending asphyxia. In this view of its action, too, the routine treatment of diphtherial paralysis with belladonna, practised by some eminent specialists, and doubtless founded on experience gained from cases of paralysis of the diaphragm, to my mind is illogical and likely to be futile, unless the last named grave complication is present or threatening.

For reasons based on the above conclusions I determined to give belladonna a trial in the treatment of broncho-pneumonia in children. If the drug possessed the powers ascribed to it, then it seemed to me that in broncho-pneumonia, with its free secretion into the bronchial tubes and pulmonary tissues, just such conditions obtained as the drug would control and counteract. So far it has more than answered all that I could have hoped for. With it as the sole drug administered there has been in my cases no need for steam tents, oxygen inhalations, unlimited stimulations, dry cupping, and all the rest of the former varied and trying treatment.

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* Read before the West Kent Branch of the British Medical Association, at Gravesend.

Out of several dozen cases treated with belladonna Dr. Shardlow, our resident medical officer, tells me he can only recollect a couple of deaths. Case after case of the complaint in young infants, in the majority of whom with the former treatment one would have anticipated a fatal termination, has, seemingly owing to belladonna, made a rapid and complete recovery. Sisters in the wards, with a vivid recollection of former methods and their discouraging results, entertain no doubt of the superiority of the later treatment. My colleague, Dr. Eustace Smith, too, is convinced on the same point, and is much struck with the rapidity with which all the symptoms clear up when belladonna is pushed. The same opinion is held by all the resident medical staff as well, and they have, I believe, now come to regard the drug as almost a specific in the complaint. In two cases in private practice lately, when I was called in, the doctors in attendance had already given a practically hopeless prognosis. Both were cases of severe broncho-pneumonia following measles, a complication admittedly grave. In the light of my early experience of such cases I would have inclined to agree with the prognosis already given in each of these cases. More recent experience, however, with belladonna enabled me to modify the prognosis, and both infants did me credit by making a rapid and thorough recovery under that drug.

So far, then, as regards mortality, my experience with the drug is everything that is favourable. I only wish that I could look with any certainty to future experience confirming these happy impressions in so grave a malady as broncho-pneumonia in children. But in the remarkably small death-rate in my cases at present, I cannot but feel I have been largely favoured by chance. If it were possible wholly to eradicate the complaint by any method of treatment, yet the state of depression remaining after so severe a malady as broncho-pneumonia must result in the deaths of many children. Still, if the death-rate were many times greater with the belladonna treatment than it has proved up to the present in my experience, even then I would claim a distinct advantage for it over any other treatment that I am acquainted with. Dr. Shardlow and Mr. Elwin Nash, our present house-physician, propose publishing a joint paper, giving details and statistics of cases treated with and without belladonna at the end of the present year. Such a paper should prove of value and interest, whether it confirm or refute my present impressions.

It is not only with regard to the mortality, moreover, that my experience with belladonna in broncho-pneumonia is such a favourable one. A very few doses in most cases have relieved the dyspnœa. In a large number, perhaps the majority, the temperature has fallen to normal very soon after the commencement of the treatment. Cases, too, that with former methods might have been expected to run a course of several weeks' duration have, with belladonna treatment, lasted only a corresponding number of days. Other advantages seemingly gained might perhaps be enumerated, but I think sufficient have been adduced in justification of the trial of the drug.

There is of course nothing novel in the treatment. Doubtless many, if not most, of us have used belladonna in various chest complaints in infants and young children. To what then, you may ask, do I attribute my more favourable results over those of others who may have formerly used the drug for the same complaint? The answer perhaps lies in the fact that I have used the drug in larger quantities than usually prescribed, and also, perhaps, a more reliable preparation. The tincture of the late *Pharmacopœia*, the preparation usually prescribed, is now admittedly a most unreliable one. That of the new *Pharmacopœia*, made from a standardised liquid extract, will doubtless prove all that is desirable, but I have as yet never tried it. The preparation I have used is the extract of the late *Pharmacopœia*. This, I am told, is far from being above suspicion as regards certainty of composition, but in this respect far more trustworthy than its corresponding tincture. This extract I have given in doses of ¼ gr. every three or four hours. I have made no distinction, too, in the dose as regards the age of the patient, and have given the same dose to an infant a few weeks old as to a child of 6 or 7 years.

The disadvantages attaching to these somewhat large doses have been singularly slight and unimportant. Out of perhaps 50 or 60 cases in two there has been slight delirium, which was easily cured by lessening the dose. In a large majority, however, there has been some flushing of the skin, and in some a definite scarlet rash. This flushing, somewhat to my surprise, has been more frequent than noticeable dilatation of the pupils. The sisters in the wards, too, tell me that they have noticed that children under the influence of the drug are unduly irritable and restless. Some of this last may, however, be ascribable to the condition left on recovery from acute disease. But were the disadvantages infinitely greater than those described, I still think they might fairly be neglected in comparison with the advantages seemingly gained from the use of the drug.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

THE CONTROL OF HÆMORRHAGE IN OPERATIONS FOR THE REMOVAL OF LABIAL ELEPHANTIASIS.

CAPTAIN J. B. SMITH, M.B., of the Indian Medical Service, has recorded in the BRITISH MEDICAL JOURNAL of January 21st, p. 148, a case of removal of elephantiasis of the vulva weighing 5 or 6 lbs., in which, after making an incision which bled alarmingly, he resorted to the expedient of passing ligatures through the neck of the tumour, which secured it in sections; these were divided successively, and the vessels of each section were tied before the next was cut through. In this manner the removal of the mass was accomplished without much loss of blood. I have on several occasions adopted this expedient with satisfactory results. In the *Indian Medical Gazette* (vol. xvi for 1881, p. 154) I published a case of labial elephantiasis in which "bleeding was prevented by preliminary ligature of the pedicle with whipcord." The tumour weighed 7 lb. 10 oz., and the patient made a good recovery. In another case (vol. xviii for 1883, p. 151) the base of the tumour, weighing 3 lb. 4 oz., was "tightly ligatured with whipcord passed through it by means of a hernia needle," result recovery. Two other successful cases, in which the tumours weighed 6 lb. 4 oz. and 3 lb. 4½ oz. are recorded in the same journal (vol. xviii, *loc. cit.*, and vol. xix for 1884, p. 105). These cases are quoted in a work on *Operative Surgery in the Calcutta Medical College*, which I published in 1885 (J. and A. Churchill). I found the method effective enough but it took some time to pass, and tie the ligatures and the removal of the tumour had to be done somewhat awkwardly, tediously, and roughly. A much more satisfactory and efficient method of controlling hæmorrhage in these cases is the use of the elastic cord as for removal of scrotal elephantiasis as originally described by me in the *Indian Medical Gazette*, vol. xvii for 1882, p. 284, and subsequently detailed in Heath's *Dictionary of Surgery* (article—Scrotal Elephantiasis) and in the work above referred to (p. 136). The application of this plan to labial operations was suggested to me by my colleague, Colonel D. O'C. Raye, M.D., then Professor of Anatomy in Calcutta Medical College. The success of the expedient is well illustrated by the following case quoted from the *Indian Medical Gazette* (vol. xxv for 1890, p. 169):

"Hindu female, aged 26. Large pendulous tumour of left labium reaching to the knee, ulcerated at fundus. The elastic cord was applied as in scrotal tumours and the mass removed; edges of wound stitched together after the vessels had been tied. Tumour weighed 14 lbs. Recovery in twenty days."

The advantages of this method of controlling hæmorrhage in operations on the male and female genitals, and it is applicable to all operations, are:

1. The facility and speed of application.
2. The absolute prevention of bleeding.
3. The absence of displacement or distortion of parts, and great freedom of working.
4. The gradual relaxation of pressure.
5. The possibility of accurate and deliberate dissection, and

ease of identifying and saving such organs as the penis, testes, and clitoris.

K. Macleod, M.D., LL.D.,
Netley. Colonel I.M.S., retired.

A CASE OF ACUTE SULPHONAL POISONING.

Sulphonal is not quite such a perfectly harmless remedy as the profession and public seem to think. Since the annual meeting in Edinburgh many cases of toxic symptoms, some of which proved fatal, have been recorded, chiefly from asylums and cases in which the drug had been administered frequently or continuously for weeks or months. Instances of toxic effects from comparatively small doses are much less frequent, Murrell gives two instances of death from 30 and 40 gr. respectively. The following case speaks for itself.

Mrs. X., aged 28, had for some days been excited and hysterical from domestic quarrels, and had been taking potassium bromide with no effect. She came to me on December 15th, 1898, praying for something to give her a night's rest. I gave her 20 grains of sulphonal, to be taken at night in hot spirit and water. This gave her a good night's rest, but she still felt irritable and excitable on the following day, and at night she could not sleep, so a lady in the house gave her 15 gr. more of sulphonal that night. She again slept well, but the next morning she was ataxic and reeled about, and had headache and tinnitus aurium. At 2 P.M. she suddenly said she felt she was dying, and became cyanosed. I saw her at 2.30 P.M. She was then livid, the face most so, but also the body generally. She could not speak; she had fainted, and had vomited two or three times. There was no dyspnœa; the respirations were extremely slow and shallow, the thoracic walls scarcely moving in respiration. Now and then she gave a slight sigh. The heart's action was feeble, and occasionally intermittent. The pupils were dilated, and acted very feebly to light. She said she felt she was dying, and she looked like it. She complained of dreadful headache and noise in her head. I gave her stimulants, and had hot bottles packed around her. I gave her two hypodermic injections of strychnine, $\frac{1}{25}$ gr. and $\frac{1}{30}$ gr., within a few hours of each other, and a mixture of ether, ammonia, and strophanthus. In the evening she was no better. As there was retention of urine, I drew it off with a catheter; it was somewhat dark coloured, but not Burgundy red. She continued heavy and drowsy.

The next day she was better; had vomited once; there was diarrhœa. The cyanosis was somewhat less. She complained of a feeling of "pins and needles" in her legs. The plantar reflex was feeble, but the knee-jerks were normal. Headache was still very bad, but the noise in her ears was better. After this she improved. The diarrhœa ceased, respiration was normal, and the cyanosis disappeared. The heart was, however, intermittent for a few days.

Such a serious condition after 35 gr. of sulphonal, given in divided doses of 20 and 15 gr. at an interval of twenty-four hours, shows decided idiosyncrasy towards its action. It also shows that this is not a safe drug for people to keep in their houses and dose themselves with, and it also makes one feel that in this, as in most synthetic remedies, idiosyncrasy is to be remembered, and comparatively small and safe doses given at first.

Enfield, N. Fred. Tresilian, M.D., M.R.C.P.Edin.

TOXIC EFFECTS OF BORACIC ACID.

The increasing use of boracic acid for medicinal and preservative purposes is sufficient reason for a further record of some untoward effects which have been produced by the drug when given internally. About five years ago I had occasion to treat a case of cystitis with boracic acid in increasing doses of gr.x to gr.xx three times a day. When it had been given for about three weeks an erythematous rash spread over the man's neck, face, and head. This was followed by some subcutaneous œdema and a fine scaly dermatitis. His salivary glands became enlarged, and eventually the hair on the face and head fell out, so that in about a fortnight he was perfectly bald. The drug was discontinued, but it took about six weeks before there was any reappearance of hair on the face and head. I am thankful to say he eventually made a complete recovery.

I have since administered boracic acid in many cases of cystitis and urethritis, and when it has been given for some time and in the above doses I have observed similar effects—that is, an erythema followed by a fine scaly exfoliation. Immediate discontinuance of the drug has prevented the development of the more severe symptoms. In one case, however, in which it was inadvertently continued the hair fell out to a slight extent, and there was marked exfoliation of the skin, especially on the hands, with onychia and splitting of the nails. As syphilitic infection could be excluded with some certainty, and as the symptoms disappeared when the drug was stopped, I can only conclude that this was entirely due to the action of boracic acid on the skin and appendages.

Birmingham. J. Jameson Evans, M.B., M.R.C.S.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

WEST SUSSEX COUNTY ASYLUM, CHICHESTER.

AORTIC ANEURYSM: RUPTURE INTO ŒSOPHAGUS.

(By J. C. McConaghey, M.B., Ch.B.Edin., Assistant Medical Officer to the Asylum.)

The following case is of interest. W. T., a coachman, aged 44, married, was admitted into this institution on September 30th, 1897, suffering from chronic mania. He was very restless, but quiet and inoffensive, and had no marked delusions. On examining the chest a rather harsh systolic murmur could be made out at and slightly below the pulmonary area. The pulses were synchronous and equal in volume, the pupils dilated but equal; the tendon reflexes were very sluggish.

After admission he had one or two syncopal attacks, but had never complained of any pain.

On December 5th, 1898, he suddenly collapsed while in the ward, but rallied after some difficulty. Later in the day a discharge of blood from the bowel took place, and in the evening blood was brought up from the stomach mixed with partly digested food. On the four subsequent days he had attacks of hæmatemesis and melæna. He died on December 10th, at 12.50 A.M.

The necropsy revealed a small saccular aneurysm about the size of a pippin situated on the descending part of the thoracic aorta, and adherent to the œsophagus. On opening up the gullet a perforation into it could be made out at the junction of the upper and middle third, through which a fair-sized blood clot was protruding. The opening was nearly the size of a shilling. The wall of the sac was formed of a thin layer of the aortic wall and laminated blood clot. Small atheromatous patches could be made out along the ascending and transverse portions of the arch of the aorta. On opening up the stomach a very large clot of blood was discovered, which had formed a complete cast of the viscus; the walls of the organ were quite healthy. The intestines were filled with half-digested blood. None of the vertebræ were eroded.

The Oldest Doctor in France.—According to the *Chronique Médicale*, the oldest medical practitioner in France is now (since the death of the centenarian, Dr. Boissy of Havre) probably Dr. Morère of Palaiseau. The son of Dr. Morère of the same place, who gave his name to a species of strawberry of great local reputation, Dr. Morère the younger was born on September 12th, 1808, and took his degree in 1834. For the last sixty-four years he has practised at Palaiseau and its neighbourhood. At the time of the Franco-German war of 1870 he was Mayor of his Commune, and narrowly escaped being shot in consequence of his resolute opposition to the excessive requisitions of the invaders. Though now well on in his 91st year, Dr. Morère still practises his profession, and is to be met with going his rounds in all weathers. He is famous for his diagnostic skill, and not less so for his charity and his devotion to his patients. It is pleasant to learn that on January 1st the old doctor was promoted to be an officer in the Legion of Honour, of which he had been a knight for more than thirty years.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, January 24th, 1899.

THOMAS BRYANT, M.Ch., F.R.C.S., President, in the Chair.

GONOCOCCUS JOINT DISEASE IN INFANTS, SECONDARY TO PURULENT OPHTHALMIA, WITH TWENTY-THREE CASES.

MR. R. **CLEMENT LUCAS**, who read this paper, first drew attention to this disease affecting the joints of infants suffering from purulent ophthalmia in the BRITISH MEDICAL JOURNAL of February 28th, 1885, more fully on July 11th, and again, with the addition of a third case, on October 10th, 1885, in the same JOURNAL. Mr. R. G. Fendick published a case in support of the truth of the observation on October 31st, 1885; but from that time no case appeared to have been published in this country, and the authors of textbooks were for the most part silent upon the subject. Abroad, however, this hitherto unrecognised joint affection of infants attracted more attention, and Debierre in France, Zatvornitski in Russia, and Widmark in Germany, each published a case before the end of the year 1885, in support of the author's contention that the joint inflammation was secondary to, and dependent upon, the ophthalmia. Mr. Clement Lucas had now collected twenty-three cases, upon which he founded his present communication. The joint disease presented itself in two forms: (1) as a very acute arthritis accompanied with much swelling, tenderness, and redness, strongly suggesting a tendency to suppuration, and (2) as a subacute synovitis, giving rise to a good deal of effusion and pain on movement, but to little or no surface redness. Of the 23 cases collected, 18 were cases of ophthalmia neonatorum inoculated during labour, and 5 were cases of secondary inoculation in older children, the eldest being 7 years of age. The ophthalmia generally appeared on the third day after birth. The joint disease showed itself more commonly towards the end of the second or during the third week of the ophthalmia. The knees were the joints most frequently affected, especially the left; any joints might be attacked, but the left wrist seemed more liable than the right; and the author offered an explanation of certain joints being specially selected. Complete resolution might be anticipated, and the inflammation usually ran a course of from three to five weeks. Bacteriological examination had shown that the gonococcus of Neisser was the cause of the ophthalmia and of the joint disease. Where suppuration took place the author asked whether further investigation might not show a double infection. In two cases this happened, streptococcus being present in one, and staphylococcus in another associated with gonococcus. The author made some remarks on diagnosis and treatment, and appended an abstract and table of the 23 cases.

The **PRESIDENT** complimented the reader of the paper, and said that though he had no notes he had seen such cases. Possibly, as the cases came under the notice of the ophthalmic department, general surgeons did not often see these joint affections.

Mr. **MACNAMARA** thought the author of the paper had proved his contention. He regarded the arthritic affection as more probably due to the products of inflammation elsewhere than to micro-organisms. In past years he had aspirated the joints in gonorrhœal rheumatism, and failed to find gonococci. The joint changes occurred in persons specially susceptible to the poison in question. He expressed his belief that chronic osteo-arthritis in old people was often secondary to suppuration around the roots of decayed teeth. Years ago the late Dr. Todd taught that osteo-arthritis was often secondary to vaginal discharges. Some similar explanation might account for acute rheumatism, the poison being manufactured in the alimentary canal or elsewhere. Further investigation into the chemical nature of these poisons was very desirable.

Mr. **HIGGINS**, in twenty-five years' out-patient ophthalmic practice, had only seen one of these cases, that one being mentioned in the paper; he therefore regarded them as very rare. An interesting point arising out of the paper was how could ordinary purulent ophthalmia be distinguished from the gonorrhœal form? Of course the presence or absence of the gonococcus might be taken as a criterion, but he quoted instances in which this did not correspond with what he regarded as the distinguishing feature—namely, the greater severity of the gonococcal form.

Mr. **BARWELL** was much interested in the subject, as he had been the first surgeon to point out that so-called gonorrhœal rheumatism was a form of chronic synovitis; this appeared in his book on *Diseases of Joints*, published in 1861. In like manner the rheumatism occurring after scarlet fever was the result of a morbid poison. The reason why joint affections were rarer in gonorrhœal ophthalmia than in ordinary gonorrhœa was that the discharge of pus was much freer from the eye than from the male urethra. Similarly gonorrhœal rheumatism was rarer in women than in men, because the discharge from the vagina was freer than from the male urethra. Synovitis might be secondary to suppuration in other parts of the body. Thus, two years ago he saw a case of suppuration about the external auditory meatus of such severity that there was some fear lest deafness might result. This was followed, nine days later, by synovitis of one knee; after the cure of the primary lesion the knee began to improve.

Dr. P. H. **PYE-SMITH** said that these cases had an important bearing on the question, formerly much debated, as to the nature of gonorrhœal synovitis. It had been thought to be neurotic, and also by others to be pyæmic; it certainly was not pyæmic in the proper use of the term, inasmuch as suppuration did not occur. It was also interesting to compare these cases with ordinary gonorrhœal synovitis in adults and to note the influence of age; in these young infants the course was rapid and acute; while in adult and still more in advanced years, the morbid changes were prolonged and chronic. The same thing could be observed in tuberculosis, morbus cordis, and other diseases. Sclerotic inflammation was a characteristic feature of gonorrhœal synovitis; it would be an additional link if it was found in the author's cases, though the presence of ophthalmia would render the observation difficult. He did not think much was gained by comparing osteo-arthritis and acute rheumatism with this affection.

Mr. A. **PEARCE GOULD** thought it undesirable to say that the absorption of morbid products gave rise to joint affections in the light of the fact that the gonococcus had often been proved to be present in the joints affected with gonorrhœal rheumatism. One reason to account for the comparative rarity of the affection in infants was probably that their joints were not exposed to the same strain as in adults. The author stated that the joint affection ran a parallel course to the original conjunctival disease; this was not borne out by all the cases collected in the paper, and certainly did not agree with what was often seen in secondary inflammation elsewhere in the body. The author further went on to say that cure of the primary disease cured the joint affection, and yet, in one of the cases referred to, the arthritic manifestation began after the conjunctival lesion was cured. The prognosis was said to be very favourable, and yet in one out of the twenty-three cases there was permanent ankylosis.

Mr. **BARKER** considered that while the dependence of the joint affection on the eye lesions had been proved, it was going too far to claim that all the arthritic affections were gonorrhœal. He gathered from an examination of the literature that in gonorrhœal synovitis the infection was generally of a mixed character, and not solely due to the gonococcus; it would therefore be interesting to know in how many of the 23 cases the presence of gonococci in the joints was absolutely established. He was inclined to use the term "pyæmic" for cases of this class. Could any distinction be drawn between the cases of mixed infection and those due solely to gonococci?

Mr. J. **HUTCHINSON** said that while syphilitic joint disease in infants was generally due to periostitis and not primarily to synovitis, there was an interesting form of synovitis which occurred in association with, though after, interstitial keratitis in older children; the knees were especially apt to be affected and become much swollen. Here it was not a question of an infection passing from the eyes to the joints, but it was rather, he would suggest, that certain tissues of the body were peculiarly susceptible to the influence of metabolic poisons produced by similar structures. He therefore inquired in what proportion of the author's cases the gonococci were proved to be present in the joints. He was inclined to think that gonorrhœal rheumatism was commoner in men because the original inflammation involved the fibrous tissues of the penis, and that for this reason the fibrous tissues of the joints were likely to be affected. In gonorrhœal rheumatism a history of gout was generally present, and was most marked in the worst cases; it would therefore be interesting to know whether heredity played any part in the author's cases. Gonorrhœal rheumatism and pyæmia were very different.

Mr. **CLEMENT LUCAS** said that the presence of gonococci in the affected joints was strong presumptive evidence that the inflammation was thus caused. Many cases of gonorrhœal synovitis in women were overlooked, and the disease was less rare than was often thought. He emphasised the importance of adequately treating the eye affection, and laid stress on the part played in the arthritic affection by mixed microbic infections.

MEDICAL SOCIETY OF LONDON.

J. MORGAN, F.R.C.S., President, in the Chair.

Monday, January 23rd, 1899.

APPENDICITIS WITH DIFFUSE PERITONITIS.

MR. **CUTHBERT WALLACE** read notes of three cases of appendicitis with diffuse peritonitis. Each had commenced with a local abscess that had spread and infected the peritoneal cavity. In two instances the peritonitis was general, and in the third it was limited to the structures behind the great omentum, reaching no higher than the transverse mesocolon. In all three the appendix was removed, and the intestines were turned out on the surface of the abdomen and cleaned with sterile water, while the belly cavity was flushed out with the same fluid. He believed that this was the most rapid and effectual method of dealing with such cases. It was next to impossible to clean the peritoneum while the intestines were *in situ*, because the stream did not flow out in a sufficiently even manner, but simply washed infective material from one part of the abdomen to another. The incision through the right rectus seemed to be the best, as it could be used to remove the appendix and to clean out the peritoneum. All three cases recovered without a bad symptom.

Mr. **CLUTTON** congratulated the author on a success which probably few surgeons could rival. He recalled that exventration had been tried and abandoned on account of its unfavourable results, and they had then tried the dry method without much success. He thought, however, that exventration might with advantage again be tried under the altered surgical circumstances. He asked how the author had managed exventration without a large incision. He approved of the use of warm sterilised water in preference to antiseptic solutions, which he thought were often productive of great harm. Alluding to the difficulty often experienced in these cases in getting the bowels to act after operation, he said that it had been suggested to inject a solution of sulphate of magnesia into the bowel high up by means of a hypodermic needle.

Mr. **STANLEY BOYD** mentioned that cases reported as diffuse peritonitis were often not such, but this remark did not apply to the author's cases. He himself had been deterred from turning out the intestines in diffuse peritonitis by the bad results he had read of and seen. It had occurred to him to inject hypodermically a drug to get the bowels to act, but there did not seem to be such a drug. He had been struck by the quasi-impossibility of effectually cleaning out the abdomen, even on to the *post-mortem* table; and he suggested that the result must depend in a great measure upon the patient's powers of resistance.

Mr. **BRUCE CLARKE**, alluding to the difficulty of evacuating the contents of the intestines, said he used to open the intestine, sometimes leaving the opening stitched to the abdominal wall for a time. He thought exventration was on the whole a good thing, but it was obviously impossible to render an abscess cavity quite aseptic. He himself always cut down through the rectus, this incision leaving less scar and less tendency to hernia. He asked the exact length of the author's incision. He agreed that very few of the cases reported as diffuse acute peritonitis were really such.

Mr. **BATTLE** discussed the view held by many that it was useless to operate in cases of diffuse peritonitis, and instanced the case of a patient of his who was admitted two days ago for intestinal obstruction. He was not thought to be very ill, but in view of the fact that there was dulness in the right flank, and that respiration was entirely thoracic, he opened the abdomen and let out much stinking pus. He was unable to do more on account of the patient's critical condition. He observed that these cases could not be treated on any one plan.

The **PRESIDENT** said that he always made use of the inguinal incision, but agreed that the author's plan presented certain advantages. He agreed that all septic matter could not possibly be got away. He thought that hardness of the abdomen and thoracic breathing were more important prognostic signs that the facies and pulse.

Mr. **WALLACE**, in reply, said he made a 6-to-8-inch incision, but in one case he had to make another incision further out to reach the upper surface of the liver, which was thickly coated with lymph. The bowels in his cases had not given him any trouble, which was of course a fortunate circumstance. His plan in exventration was to draw the intestines first to one side and then to the other, cleansing alternately each side of the abdominal cavity. He remarked that when recovery was going to take place the improvement was generally early and rapid.

OPERATION FOR IMPACTED STONE IN THE URETER.

Mr. **P. J. FREYER** read notes of two recent cases of successful operation for impacted stone in the ureter. (1) An officer, aged 23, had been suffering for nineteen months from renal colic and hæmaturia, ultimately diagnosed to be due to stone in the kidney. There was a slightly-movable tumour in the region of the right kidney, as large as two fists, with tenderness on palpation. He exposed the kidney through an oblique lumbar incision 4½ inches long, and opened the fatty capsule. No stone could be felt, so he opened the kidney through the convex border, passing his finger through into the pelvis, when a rush of urine took place. Still no stone could be felt, but on passing a catheter down the ureter an obstruction was found 4 inches from the pelvis. He enlarged the incision 4 or 5 inches till he could grasp the stone, which, as it could not be moved, he took away through an incision into the ureter. He did not suture the wound in the ureter, but contented himself with placing a large drainage tube down to the opening along the back of the kidney. He partially closed the wound of the kidney by two stitches. Bloody urine was passed freely in the evening, and by both loin and urethra for several days. The patient completely recovered, and left the home five weeks after the operation. He had since operated on this patient's mother, successfully removing several oxalate stones from the pelvis and calyces. (2) A man, aged 52, had been a patient at St. Peter's Hospital for some thirteen years suffering from multiple stricture of the urethra and symptoms of kidney stone. Exploration of the left kidney in 1895 gave only temporary relief. When he saw the patient in 1897, he was very ill with severe pain in left loin and hæmaturia. The urine was thick and offensive, and deposited about half pus. On September 1st, 1897, he again explored the left kidney through an oblique lumbar incision but could find no kidney. No relief followed, so he performed internal urethrotomy on November 18th, but though the operation afforded a free flow for the urine, it did not much diminish his other symptoms; indeed the pain in the right loin increased. He continued to suffer very severely, and on November 9th he cystoscoped him under an anæsthetic and detected a long, narrow, rough, pencil-shaped stone projecting into the bladder from the right ureter; and this after a little trouble he removed with the lithotrite, since which the patient had continued to improve in health. He briefly alluded to five other instances of stone impacted or encysted in the ureter on which he had operated. In three the stone was impacted at the ureteral orifice projecting into the bladder and felt by the sound (one female and two males).

Mr. **BRUCE CLARKE** related the case of a woman with right kidney symptoms of two years' standing. He operated through the usual lumbar incision, cutting into the kidney at the junction of the pelvis with the kidney substance, but could find no stone. On exploring the ureter, however, he came upon a stone 5 inches down. He extended the incision, incised the ureter, and removed the stone. He did not suture the ureter, but left in a drainage tube, and the patient made an excellent recovery. He observed that a stone which had got fixed just outside the bladder might ulcerate through, and so they might get a pouch in the bladder containing a stone in communication with the ureter. If they could detect and remove the stone before this stage was reached, it would be the better for their patients.

The PRESIDENT asked the author whether he had any views as to the exact spot at which a stone might be arrested in the course of the ureter other than at the commencement or end.

Mr. FREYER, in reply, did not think there was any particular spot. The fact that stones were described as arrested most frequently at the beginning or end of the ureter was because it was only in these positions that it was possible to find them without an elaborate dissection. He pointed out that in most of these cases the operation was undertaken to remove a stone supposed to be in the pelvis of the kidney.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

P. A. YOUNG, M.D., F.R.C.P.E., Vice-President, in the Chair.

Wednesday, January 18th, 1899.

CASES.

MR. GREIG (Dundee) showed a case of Symmetrical Perforation of large size of both Parietal Bones, which had given rise to no inconvenience, and had not prevented hard service on the Indian frontier in the Chitral campaign, and which later had not been incompatible with the somewhat severe life of a driver in the Royal Artillery.—Mr. F. M. CAIRD and Mr. GUY showed a case of Syphilitic Destruction of the Nose and Palate in a young man. In this case syphilitic destruction had overtaken the soft parts of the nose, upper lip, cheeks, and palate, while the vomer, inferior turbinated bones, nasal bones, and nasal processes of the maxilla were completely destroyed. Extensive destruction of the palatal and alveolar processes of the maxilla had also taken place, and all the upper teeth were lost, the lower lip and teeth projecting far beyond the remains of the upper lip. The patient presented a horrifying appearance, and, after due consideration, the idea of attempting any plastic operation was abandoned, as the improvement could be only a very slight one. The case was consequently thought suitable for prosthesis by the dental surgeon. A nose with cheeks and upper lip were fitted and retained in place by the usual device of a spectacle frame. The apparatus was made of white vulcanite, was painted in oils, had a moustache attached—the patient having been a soldier—and the bridge of the spectacles was vulcanised in. An artificial palate into the middle line of which a strip of springy gold was vulcanised was now made; the gold strip was bent in such a way that its extremity, sliding in a gold box or catch at the back of the upper lip part of the nosepiece, retained the palate in place. The improvement in the patient's appearance was marvellous. At a distance of a yard or two one failed to detect the artificial nature of his facial condition.

SPECIMENS.

Dr. HARVEY LITTLEJOHN showed (1) two specimens of Hypertrophy of the Heart from Cases of Sudden Death; in one case the heart weighed 28 ozs., and in the other 48 ozs.; (2) A specimen of Effusion of Blood upon the Surface of the Brain; and (3) Rupture of the Inner Part of the Wall of the Left Ventricle.

APHASIA FOLLOWING ABSCESS OF TEMPORO-SPHENOIDAL LOBE.

Dr. SHENNAN and Mr. MILES read a paper on a case of aphasia following abscess in the temporo-sphenoidal lobe, which did not involve the auditory (word-hearing) centre. The abscess was secondary to middle-ear suppuration, and for a time ran the usual clinical course of such cases. It was evacuated, and the patient's urgent symptoms disappeared. On the following day, however, it was observed that he showed symptoms of paraphasia and word-intoxication. He was unable to name objects at sight. This amnesia verbalis continued throughout, and there was practically no word-deafness. When this was present, as occasionally happened, it was relieved at once by drainage being improved, and pressure on the auditory centre being thus relieved. He was able after a time to play a game of dominoes, and to read the newspapers with understanding. Later the case became worse, and he died with symptoms of general compression. At the *post-mortem* examination an old abscess, with inspissated contents was found occupying practically the whole of the temporo-sphenoidal lobe, with the exception of the posterior part of the superior convolution. A recent abscess was found in the position of the external capsule, and from this a series of recent abscesses extended backwards as far as the level of the angular gyrus, which were accountable for the later symptoms. This case supported the theory advanced by Dr. William Elder, that there exists a special area in which the memory of nouns and names is stored in close proximity to the auditory centre but not identical with it. He places it below that centre in the posterior parts of the second and third temporo-sphenoidal convolutions. The primary abscess in the temporo-sphenoidal lobe would interrupt fibres passing from such an area to Broca's convolution.

DISEASES OF THE CEREBELLUM.

Dr. ALEXANDER BRUCE read a paper on the Localisation and Symptoms of Disease of the Cerebellum considered in relation to its Anatomical Connections.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

Thursday, January 12th, 1899.

VINCENT JACKSON, F.R.C.S.Edin., President, in the Chair.

INFANTILE UTERUS.

MR. LAWSON TAIT showed the preparation from a lady, aged 35, upon whom he had operated the day before. The case was one of marked want of development of the uterus (infantile uterus), and she had suffered all her menstrual life. Eighteen months ago the canal was divided, and a stem pessary inserted. For four or five months her sufferings had been materially relieved, but since then they had recurred with increasing intensity, so that for nine or ten months her menstrual week had been one continuous agony, accompanied by constant sickness and even delirium, whilst during the other three weeks of the cycle she was in constant and severe pain. As a last resort, Mr. Tait removed the uterus and appendages by the vaginal route, as he had done in such cases for some four or five years.

DOUBLE PYOSALPINX.

Mr. LAWSON TAIT also showed the preparation from a case of double pyosalpinx and suppurating ovaries from a virgin, aged 37, operated upon ten days ago, whose early history was primarily that of the first case, one of infantile uterus. An operation was performed by the vaginal route eighteen months ago, but what was done was not known. It was recognised by her doctor that a tumour was steadily presenting itself above the brim of the pelvis, and this Mr. Tait recognised as cystic, probably a pyosalpinx. One tube was distended with over a pint of stinking pus, and the other was occupied by about half as much decomposing blood and pus. The ovaries were about as large as oranges before they were removed, the whole mass densely adherent over its area. The patient had made an excellent recovery. The lesson of the two cases was that it would have been better for the second patient to have had her uterus and appendages removed some five or six years ago.

NEPHRECTOMY FOR MALIGNANT KIDNEY.

Mr. JORDAN LLOYD showed a specimen of malignant disease of the kidney, removed from a man aged 54, whose condition was serious from excessive hæmaturia. The patient had fallen down two years before, injuring himself below the left costal margin, but no kidney lesion was suspected at the time. Some six months later he began to suffer from paroxysmal pain deep in the left abdomen. About four months since came the first attack of hæmaturia, which lasted a few days and disappeared, to return and disappear on two occasions subsequently. The urine contained blood clots, and was of a deep red-brown colour; the left kidney could be felt enlarged. Lumbar nephrectomy was performed nearly two weeks since. The pedicle was temporarily clamped with

Doyen's forceps; the ureter, renal arteries, and veins were tied singly with fine silk ligatures, the clamps being then removed; no blood was lost from the kidney vessels at all. There was entire absence of shock and after-pain; this Mr. Lloyd attributed in great measure to the absence of an encircling ligature about a pedicle containing sensitive and sympathetic nerve structures. The patient had made an easy recovery.

TUBAL PREGNANCY.

Mr. SMALLWOOD SAVAGE showed a specimen of hæmatosalpinx resulting from tubal pregnancy removed eight days ago from a woman, aged 29. She had had three children, the last one four years ago; she had miscarried four months ago, having gone five months, before which she had been quite regular. In October, 1898, she was regular, and seven weeks ago she went four days over her time, since when she had been losing on and off. Her present illness began seven weeks ago, when she was suddenly taken with acute pain of a paroxysmal character in the right lower abdomen, together with vomiting, diarrhœa, increased temperature and pulse rate. On examination no physical signs were present except marked rigidity of the abdomen. Two days afterwards an irregular menstruation began, which lasted seven weeks, but no decidual membrane was passed. The patient's condition remained much the same until four and a-half weeks later, when by the vagina the uterus was found to be enlarged and the left tube was felt to form a lump in its mesometrium, and not until a week later did the pain appear on the same side as the diseased tube. Laparotomy was performed on January 4th, when an unruptured sacculated hæmatosalpinx was removed after ligature with a silk knot. The fimbriæ were less prominent than normal and in process of inversion. Microscopically chorionic villi were found in the contents of the tube. The patient up to the present time was progressing satisfactorily.

RADIOGRAPH OF PELVIS SHOWING POSITION OF HAIR-PIN IN VAGINA.

Mr. J. HALL-EDWARDS showed this radiograph. E. H., aged 7, was admitted into the General Hospital on November 4th, 1898, complaining of pain in the pelvis on sitting down. There was an obscure history of a foreign body having been placed in the bladder, vagina, or rectum. The child was radiographed through the pelvis, the resulting picture showing the presence of a large hair-pin, over 3 inches in length. This was extracted from the vagina on the following day by Mr. W. F. Haslam.

MYELOID SARCOMA OF FIBULA.

Mr. HASLAM showed a specimen which he had removed from a girl aged 8. The swelling had been coming for six months, and there was no pain or interference with the function of the limb. The upper third of the bone was expanded, and was found to contain a large quantity of blood and a comparatively small amount of new growth. The upper two-thirds of the fibula were removed, after the external popliteal nerve and its terminal branches had been dissected off the expanded portion.

PAPERS.

Dr. J. W. RUSSELL read a paper on The Movements of Chorea.—Dr. WALTER JORDAN read a paper on Cough as a Symptom of Disease in Childhood.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

EDWIN LEE, M.R.C.S., President, in the Chair.

Friday, January 13th, 1899.

THE SERUM TREATMENT OF DIPHTHERIA.

A DISCUSSION on this subject was introduced by Drs. CHURTON, BARRS, and TREVELYAN.

Dr. CHURTON said that, as it was not always possible to obtain immediate bacteriological evidence as to a doubtful case, it was necessary clearly to define the clinical evidence which gave the greatest measure of probability that in any given case the specific bacilli were present. He discussed a characteristic case in a boy aged 8. On the second day of the disease 1,000 units of Parke Davis's serum was injected, and precipitated sulphur was applied to the throat by insufflation. The boy made a good recovery from the diphtheria. It had been shown by Dr. C. E. Bousfield that in many cases suspected of diphtheria during a recent epidemic the specific bacilli were not present. But as the serum appeared to be now almost invariably harmless, even when diphtheria poisons were not present to neutralise it, there could be no doubt upon which side we should desire to err. It had been asserted that the only conclusive evidence that an exudation was diphtherial was its inoculability, but in this country that was quite impracticable, and, indeed, for medical purposes, useless.

Dr. BARRS said that his experience had led him to adopt the antitoxic serum treatment in all cases clinically recognised as diphtheria. He had seen nothing but good results from its use. The serum should be used in all cases and in efficient doses, without waiting for bacteriological diagnosis. The difficulties in making a clinical diagnosis of diphtheria were not so great as had been stated. For practical purposes he held most strongly that all membranous inflammations of the throat should be regarded as diphtheria, and promptly treated by the injection of antitoxic serum. He did not think that the serum treatment had made all local treatment unnecessary. Tracheotomy, for instance, ought to be done at once when there was any risk of death from mechanical obstruction of the air passages; for though the diphtherial membrane rapidly disappeared under the serum treatment, it would not be safe to rely solely upon that effect in threatening asphyxia. The combined use of serum and tracheotomy in laryngeal cases had given most excellent results. He also urged the necessity for prolonged rest in bed so long as there were the smallest manifestations of paralysis, and suggested that no patient should be allowed to sit up until the knee-jerk had returned, though this might mean confinement to bed for many weeks. He had seen three cases of fatal respiratory palsy occurring as late as six weeks after the disappearance of the acute manifestations, and from twenty-one to fourteen days after the patient had been allowed to get up.

Dr. TREVELYAN, after referring to the subject of artificial immunity and its relation to the serum treatment, discussed the question of the strength of the curative serum and the method of expressing it in immunity units. The longer the interval between the time of the infection and the injection of the serum, the greater the difficulty of cure and the larger the number of units required. The causes of failure of the serum treatment lay in (1) its too late administration, (2) insufficient dosage, including inefficiency of the serum, and (3) the presence of a mixed infection. In speaking of the severe accidents which had very rarely attended the serum treatment, Dr. Trevelyan did not think that every case should be forthwith injected, but if the general symptoms were obvious or the local lesion severe or extending, no time should be lost. The proofs of the value of the serum treatment were furnished by (1) statistics and (2) the obviously favourable action upon the symptoms. The numbers which had been treated were sufficiently numerous to warrant the conclusion that the treatment was efficient. The disappearance of symptoms of even considerable laryngeal obstruction under the treatment was illustrated from a recent case. On the other hand, it must not lead to an undue postponement of tracheotomy or intubation. Except in so-called septic diphtheria, Dr. Trevelyan did not think local treatment was desirable, as the disadvantages attending anything like a thorough local treatment altogether outweighed the advantages to be obtained from it in the presence of an efficient general treatment.

After a few remarks from the PRESIDENT, Dr. SPOTTISWOODE CAMERON gave the statistics of the epidemic of diphtheria in Leeds, and illustrated them by by lantern slides.

Dr. MOUILLOT (Harrogate) doubted if the mortality of diphtheria was as great as generally supposed. He referred to a paper of his in the *Transactions* of the Royal Academy of Medicine in Ireland, 1887, which contained an account of 18 cases observed at the same time in a dormitory of a girls' school. Of these some were so mild that the diagnosis of diphtheria would not have been thought of had they occurred apart from the epidemic. Before bacteriological investigations were made, severe cases were diagnosed as diphtheria, and the mild ones were not recognised as mitigated examples of that disease; hence an exaggerated mortality.

Dr. **EXLEY** had treated during 1898, 47 cases of diphtheria with 16 deaths (37.04 per cent.). The cases under ordinary treatment were 32, with 15 deaths (46.8 per cent.), and the cases under "antitoxin" treatment, 15, with only 1 death (6.6 per cent.); 2 adults were treated and both recovered; 5 cases over 10 years all recovered. The death under the antitoxin treatment was interesting from the fact that it was the first time Dr. Exley had used it, and the administration was delayed until the fifth day; 1,500 units were then given, and 1,500 units twenty-four hours later as the case was severe (nasal). The child rapidly improved, and on the fourteenth day sat up in bed for a little time; it seemed faint, and gradually got worse, and died on the sixteenth day of the disease. No ill effects were noted from the use of serum. The only thing complained of by the patient was slight abdominal pain and tenderness, passing off in about twenty-four hours. The serum used was from the Jenner Institute. Dr. Exley recommended early and free use of antitoxin, and prolonged rest in bed to obviate the risks of cardiac failure. Albuminuria was not by any means common in these cases, and in some of the worst it was absent through the whole course of the disease.

Dr. **ROBINSON** (Low Moor) referred to a severe case in which the symptoms of laryngeal obstruction passed away under the serum treatment. The child, aged 9 years, was injected with 3,000 units within eighteen hours, and made a rapid recovery. A short delay before proceeding to tracheotomy was thus justifiable in such cases.

Mr. A. E. **PEARSON**, of the Leeds City Infectious Hospitals, dwelt upon the importance of a bacteriological examination being made of suspected cases before admission. Several cases sent in were found to have only a staphylococcus growth in the throat. Mr. Pearson further suggested a preliminary small injection of antitoxin in all suspected cases at the same time, as the material was sent to the bacteriologist for examination. The treatment should, of course, be continued if an affirmative reply were received. He thought that the erythemata and joint pains after the antitoxin treatment were probably due to slight septic infection from the syringe used. These syringes should be very carefully sterilised.

Dr. **MANTLE** (Halifax) reminded the meeting of the communication he made to the Society in May, 1895, when he brought forward three successful cases published in the *Lancet*. He was then a believer in the antitoxin treatment, and after a more extended experience he was a greater advocate of its being adopted in all cases. He was convinced, however, that it was wrong to discard local treatment, inasmuch as the serum was not germicidal, but was merely antagonistic to the poisons manufactured by the bacilli in the throat. He had remarked in his paper, and now wished to emphasise it, that the bacilli did not enter the tissues, but were found chiefly near the surface of the exuded lymph. Therefore, in the majority of cases, if seen early, they could be reached, and possibly destroyed, by the application of perchloride of mercury combined with glycerine (1 in 100) which he recommended to be used. The antitoxin treatment was undoubtedly speculative, the speculation being based upon the amount of antitoxin the patient naturally possessed; but, inasmuch as it was not harmful of itself it was safe to use in all cases, for it was impossible to determine whether the patient had sufficient or was minus the amount of antidote necessary to neutralise the toxins so rapidly absorbed by the tissues.

Dr. **BAMPTON** (Ilkley) said that clinically all membranous sore throats must be treated as diphtheria, but that all diphtherial sore throats were not membranous. In epidemic sore throat pseudo-diphtheria by a rapid process of evolution and development might be cultivated into the graver variety. Antitoxin acted like a charm if given early, and did not cause sequelæ. If given late, when toxins preponderated, larger doses were necessary to neutralise, and save life, but toxins would already have damaged nerve cells and sequelæ follow.

After some remarks from Dr. **EDDISON**, chiefly on the question of local treatment,

Dr. **EDWIN ROBERTS** said he had treated 22 cases of diphtheria during the recent epidemic, and 21 of these were injected. The 1 in which the serum treatment was not employed was moribund when first seen, and died in a few hours. Of the remaining 21, 2 died. The first of these was injected on the fourth day. He was doing well when a fatal abdominal complication supervened. In the second case, seen on the fifth day, the child was almost pulseless, and died the same night in spite of the serum treatment. In those cases injected early and sufficiently the good results were so regularly and constantly observed that one was fully persuaded that the antitoxin treatment was absolutely specific. No other treatment, local or otherwise, was adopted in these cases beyond forced feeding and stimulants.

After some remarks from Dr. **HELLIER**,

Dr. **CHADWICK** said the present success of tracheotomy for "croup" in young children was quite astonishing as compared with former times, the only difference being the simultaneous use of antitoxin. Had the improvement in the death-rate during the past quarter anything to do with the closing of schools?

Mr. **LITTLEWOOD** said that before the days of the serum treatment he had performed tracheotomy for diphtheria on 12 occasions. Of these, only 2 recovered, and 1 died subsequently of cardiac paralysis. Since that time he had operated on three most severe cases, all of which recovered under the combined treatment of the antitoxin and tracheotomy.

Drs. **CHURTON**, **BARRS**, and **TREVELYAN** replied.

Dr. **TREVELYAN** showed a series of cultivations and microscopical preparations, together with lantern slides and diagrams, of the diphtheria bacillus, and Mr. A. E. **PEARSON** some microscopic specimens from cases in the City Fever Hospitals.

EDINBURGH OBSTETRICAL SOCIETY.

J. HALLIDAY CROOM, M.D., F.R.C.P.E., President, in the Chair.

Wednesday, January 11th, 1899.

SPECIMENS.

THE PRESIDENT showed: (1) A huge Dermoid Ovarian Tumour weighing 6½ st., that is, 91 lbs; (2) Ovarian Tumour which gave rise to special symptoms; (3) Uterus and Annexa, where the two Ovaries and the Fundus Uteri were sarcomatous, as is usual in such cases, the woman looked well and younger than she was; (4) a Suppurating Dermoid.—Professor A. R. **SIMPSON** showed: (1) Fœtal Bones from a case of extrauterine gestation; (2) Abortion from a case of pneumonia; (3) Specimen from a case of Salpingo-ovaritis.—Dr. **MILNE MURRAY** showed: (1) an improved Bolt of Axis-traction Forceps; (2) Fœtus and Placenta showing remarkable twisting of the cord close to the umbilicus, which had occurred after the death of the fœtus.—Dr. J. W. **BALLANTYNE** showed: (1) A Cervical Fibroid removed for serious metrorrhagia; (2) Photographs of Siamese Child with congenital facial tumour; (3) a Blood Mole; (4) "Secundines" from a case of central placenta prævia; (5) Uterine Contents from a case of missed abortion; (6) Photograph of Congenital Hypertrophy of the Hands (Macrodactyly); (7) a copy of Boaistuau's *Histoires Prodigieuses*, a very rare sixteenth century book on monstrosities.

INSTRUMENTAL ASSISTANCE IN PARTURITION.

Dr. **PONDER** read a paper on this subject, and exhibited a new instrument. The principal point in all labours, he insisted, was to terminate them early, in the interests of the mother, the child, and accoucheur. Primiparous labours should not be delayed much longer than multiparous ones. The intention of Nature was that assistance should be given in human parturition, and that this was increasingly so as civilisation advanced. He indicated Nature's mode of effecting delivery by dilating the parturient passage, and straightening chiefly in a backward direction. The uterine expulsive force was ordinarily sufficient to expel the child if the canal were opened up, and therefore our wisdom was to copy Nature. He recounted the points in the midwifery forceps, and explained that they were beneficial when used in the low operation early, and placed in relation to the child's head. Their action, he maintained, was then just the opposite of what was usually taught. He referred to the forceps of Sir James Y. Simpson, and to that of his successor, Professor A. R. Simpson. In the low operation the action of the forceps was that of a lever of the first class. Its true action fell under two heads: (1) Beneficial in dilating and increasing the wedge action of the head; and (2) harmful in compressing and exerting traction. In the high operation the action was that of a lever of the first class, and the chief effect was to increase the biparietal diameter of the head. The midwifery forceps, he held, was not a forceps at all; its action was understood by regarding the blades as of two parts: (1) posterior end, which performed the beneficial actions; and (2) anterior end, which performed the hurtful actions. His instrument introduced a third blade. In shape and structure it was essentially two ovals, with the third or posterior blade higher or longer. On the outer surface of these three blades were ridges which acted as wedge-like dilators. The whole action of his suggested new instrument was that of a dilator. The three blades fitted into one another by pin-like locks, and all three were knit together into one homogeneous mass by a screw. He had not yet had an opportunity of trying his instrumemt in actual practice. He had only lately arrived from Kalimpong, and had just got his instrument constructed by Mr. Young, the surgical instrument maker of that city. It exerted no pressure and no traction on the head; it was a pure dilator of the maternal passages.

The paper was discussed, for the most part adversely, by Drs. **MILNE MURRAY**, **KEPPIE PATERSON**, **J. W. BALLANTYNE**, **F. HAULTAIN**, **LAMOND LACKIE**, **HAIG FERGUSON**, **W. TAYLOR**, **J. EASON**, **LUCAS**, and **W. FORDYCE**; and Dr. **PONDER** replied.

CLINICAL SOCIETY OF MANCHESTER.

A. HILL GRIFFITH, M.D., President, in the Chair.

Tuesday, January 17th, 1899.

FRACTURE OF SHAFT OF ULNA ASSOCIATED WITH DISLOCATION OF HEAD OF RADIUS.

MR. J. E. PLATT drew attention to the frequency with which these injuries were associated, and stated that the true nature of the accident was very likely to be overlooked. He showed, by permission of Mr. Thomas Jones, a patient who had had almost complete ankylosis of the elbow-joint as a result of non-reduction of the displacement of the bones, and who had been greatly improved by subsequent excision of the radial head. Mr. Platt had met with six or seven examples of this injury; in all cases it appeared to have been due to direct violence; in all save one the ulna had been broken near the junction of the upper and middle thirds of the shaft. The radius had been dislocated outwards in one case, backwards in one, and forwards in the remaining cases. When seen soon after the occurrence of the accident, reduction of the deformity had been easily effected by traction upon the forearm with pressure upon the head of the radius. In old-standing cases, excision of the radial head had given excellent results. The advisability of examining for dislocation of the radius in all cases of fracture of the shaft of the ulna without fracture of the radius was insisted upon.

OPERATION FOR UTERINE FIBROIDS.

Mr. E. **STANMORE BISHOP** drew attention to the present position of the operation for the removal of uterine fibroids. The reasons which had induced medical men in the past, and which still induced many to advise the patients against active interference, had lost much of their weight since the modern operations had been introduced and the mortality had so markedly decreased, whilst the reasons for operation, and especially for early operation, had gained in force and urgency. Mr. Bishop gave a brief history of the development of this operation, showing that it had followed almost precisely the same steps in evolution as the precedent operation of ovariotomy, and with much the same result. The earlier operations were necessarily performed upon extremely bad cases and under the worst conditions. The greatly lowered mortality now would tend to induce patients to submit to removal whilst still the tumour was comparatively small and free from adhesions to intestine, etc., and thus even the present mortality would be still further lowered. Reference was made to Tait's operation for removal of appendages, with a mortality of 1.53 per cent., but it was pointed out that in the most troublesome cases (those of fibro-cystic disease) this operation was useless. Johnson estimated failures at 10 per cent. The difficulty always of removing both appendages was noted. The retention of the ovaries, for physiological reasons, led to hysterectomy with extraperitoneal treatment of the stump, Hegar's operation, to Alexander's and Engström's methods, and later to Schroeder's operation, tha of hysterectomy with intraperitoneal disposal of the stump. Their advantages and drawbacks were noted. Lastly, the newer operations of Péan, Landau. Doyen, Martin, Zweifel, Baer, Sänger, Le Bec, and Christopher Martin, were mentioned. The advantages of complete removal insisted upon and the mortality given, the danger of pregnancy in fibroid cases was explained, and Bowreman Jessett's figures of mortality were quoted. Since the mortality was so small, and likely still further to decrease, the miseries attendant upon fibroid disease began to attract more attention, and to obtain truer recognition. It was shown that these miseries were by no means insignificant. The conclusion was drawn that fibroids presenting no symptoms of pressure or hæmorrhage might be ignored, but that the onset of definite symptoms should determine the practitioner to advise operation.

RELIEF OF SUFFERING IN OBSTETRIC PRACTICE.

Dr. **FOTHERGILL** made a communication on this subject. As labour was a natural and healthy process, but one attended by much discomfort, he held that the first duty of the obstetrician was to relieve suffering. The comfort of the parturient woman should be secured, first, by careful attention to a number of details; and, secondly, by the use of chloroform during the second stage of labour. The minor methods of relieving suffering were illustrated by reference to the great utility of the hot bath, and it was stated that the bath room was the most comfortable place in which to pass a considerable portion of the first stage. The use of De Ribes's bag or of manual dilatation was advocated for shortening the suffering of dry labour; while a short administration of chloroform was recommended in colicky uterine action and in spasmodic rigidity of the cervix. Cocaine and quinine were also mentioned as useful adjuvants in the first stage. When dilatation was complete, and the second stage was fairly begun, a whiff of chloroform might be given with every pain until the end of labour, when for a few minutes deeper anæsthesia should be produced. Bleeding was not increased, and the child was not injured by this use of chloroform, and, if unduly prolonged, labour could always be ended by the judicious use of the forceps. In cases where operative interference was necessary chloroform should always be used. It was a matter for deep regret that in that district forceps extraction, turning, craniotomy, and removal of adherent placenta were frequently done without the aid of any anæsthetic. In repairing perineal tears some suffering could be spared by omitting to suture the skin and vaginal mucosa, uniting merely the torn muscle and connective tissue. The use of hypnotism in obstetric practice was also referred to, and the interesting results of experiments by an American observer were described. In 35 cases out of 46 suffering was greatly relieved.

NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

JAMES LIMONT, M.B., M.R.C.P., President, in the Chair.

Thursday, January 12th, 1899.

TAR ACNE.

Dr. **LIMONT** showed a man who had developed tar acne as the result of having a tar lotion applied to his skin, which was affected with seborrhœic dermatitis.

MALIGNANT PUSTULE.

Mr. H. B. **ANGUS** brought forward a man from whom he had removed, by free incision, a malignant pustule situated below the left ear. This patient probably became infected while unloading foreign hides. The period of incubation was about four days. Recovery was uneventful, a simple healthy granulating ulcer now being present.

Dr. **HARDCASTLE** showed the specimen removed, also microscopic slides of the bacilli and spores taken from fluid in vesicles.

Mr. **MORISON** related a case which had been under his care three months previously. This patient became infected as the result of dressing the carcass of an animal which had died of anthrax. The pustule developed on the dorsum of the hand between the thumb and the first finger. Treatment consisted in free excision of the pustule. Three or four hours afterwards, during the absence of the nurse, the man tried to get out of bed and was found dead on her return. Mr. Morison thought that syncope was a common method of death in these cases.

Dr. JAMES DRUMMOND related a case which had come under his observation a year ago. A stableman, who did not know how he got the infection, but suggested foreign grain, developed a pustule on the dorsum of the hand the size of a split walnut. He was seen four days after the onset. The fluid in the vesicles contained bacilli. Treatment consisted in injecting carbolic acid all round the pustule. The whole mass sloughed away, leaving a healthy surface, which healed in three months.

Dr. BEATTIE said that the period of incubation in Mr. Morison's case was four days, and a striking peculiarity was that bacilli were found in the blood during life. If the knife were used in the treatment of these cases, the resulting wound might be readily inoculated. He would suggest the actual cautery.

Mr. WILLIAMSON related the history of a man who developed two pustules on upper eyelid. The fluid in the vesicles was examined for bacilli, but none were found. The man died.

Dr. FIELDEN had come across three cases in his practice, all in butchers. These were all treated by the external application of strong liquor ferri perchloridi and the internal administration of 30 minims of the same preparation. All recovered.

GASTROENTEROSTOMY.

Mr. RUTHERFORD MORISON brought forward a patient who had noticed a mass in the abdomen for three years. Operation (gastroenterostomy) had been performed six weeks previously, with great benefit to the patient. Mr. Morison's method of operating consisted in severing the gut below the duodeno-jejunal flexure, attaching the distal part to the anterior surface of the stomach, and the proximal part to the gut below the anastomosis. In this way there was less liability for bile and pancreatic juice to regurgitate.

Dr. CLAY discussed the diagnosis of the case.

Mr. A. E. MORISON said that he had done gastroenterostomy in 5 cases. In 2 of these death had occurred as a result of regurgitation of intestinal contents.

Mr. MARTIN also made some remarks.

BONE TRANSPLANTATION.

Mr. RUTHERFORD MORISON exhibited a boy who had had the diaphysis of his right tibia removed for infective osteomyelitis. The bone was not reproduced. He therefore removed the fibula from a recently amputated leg, drilled holes into it, and placed it bodily in the position of the absent tibia. It had become vascularised completely, with the exception of a small piece at the lower end, over which the skin had sloughed.

OPERATION FOR PERFORATED GASTRIC ULCER.

Mr. A. M. MARTIN brought forward a girl, a domestic servant, who had experienced gastric pain for some two years back. Seven hours and a half previous to admission into the Newcastle Infirmary she was seized with severe abdominal pain and collapse. She was seen by Dr. Pratt three hours later, who advised instant removal to hospital. On admission she was in great pain; the abdomen was somewhat distended and tender all over. On percussion dulness was elicited in both flanks, changing with position. At the operation the perforation was found in the posterior wall of the stomach near the cardiac end; the peritoneum contained a quantity of fluid with fragments of undigested food. The perforation was closed with a double row of silk sutures. The peritoneal cavity was washed out with sterilised normal saline solution, and a drainage tube placed in Douglas's pouch. She made an uneventful recovery.

THORACIC ANEURYSM.

Dr. OLIVER exhibited two cases: (1) A man, who had been an in-patient three years ago for aneurysm of the ascending portion of the arch of the aorta. The aneurysm had therefore been in existence three years. Signs of effusion had been present, which on introduction of a needle was found to be purulent. There was now no evidence of pus. (2) A man with aneurysm springing from the descending aorta, and pointing backwards to the left of the spine. This case had been treated by galvano-puncture, with some diminution of size and pulsation.

FUNCTIONAL OPISTHOTONOS.

Dr. BEATTIE brought forward a German with marked analgesia. On becoming excited his back became markedly arched, so that he rested on his occiput and heels. While before the meeting this patient had a typical attack.

Dr. OLIVER alluded to the much greater frequency of these cases in foreigners than in Englishmen, and mentioned a precisely similar case which had been under his care some ten years previously.

SPHYGMOMETER AND NEW FORM OF SPHYGMOGRAPH.

Dr. R. A. BOLAM demonstrated the construction and uses of these instruments.

BRISTOL MEDICO-CHIRURGICAL SOCIETY.—At a meeting on January 11th, Dr. ROXBURGH in the chair, Dr. C. E. S. FLEMMING showed a microscopic section of Angeiosarcoma. Mr. WILLIAMS commented on the pathology of the subject.—Dr. WALDO read a paper on the Treatment of Hæmorrhoids. Mr. MUNRO SMITH, Dr. AUST LAWRENCE, Mr. C. E. S. FLEMMING, Mr. EWENS, Dr. A. J. HARRISON, Dr. P. W. WILLIAMS, Mr. CARWARDINE, and Dr. ELLIOTT spoke.—Dr. AUST LAWRENCE read a paper on the Immediate Repair of the Perineum when Lacerated in Labour. Mr. L. FIRTH, Dr. NEWNHAM, and Dr. W. C. SWAYNE discussed the paper.—Mr. J. L. FIRTH read a paper on a case of Primary Sarcoma of the Thyroid treated by Thyroidectomy. Mr. HARSANT, Mr. R. WILLIAMS, Dr. STACK, Dr. WALDO, Mr. MORTON, and Mr. PAUL BUSH commented on the paper.—Dr. W. H. NEWNHAM read a paper on a successful case of Intraperitoneal Hysterectomy. Dr. AUST LAWRENCE, Mr. WILLIAMS, Mr. MORTON, Dr. W. C. SWAYNE, and Mr. CARWARDINE discussed the subject.

BRADFORD AND DISTRICT MEDICO-ETHICAL SOCIETY.—The annual general meeting of this Society was held on January 18th at Bradford. There was a large attendance. The usual business of the Society was transacted, and the officers were elected for the ensuing year as follows:—*President:* P. E. Miall. *Vice-President:* Dr. T. Curtis Denby. *Treasurer:* Dr. F. K. March. *Secretaries:* W. Horrocks, Ar. Manknell. *Committee:* Drs. C. F. M. Althorp, D. Goyder, J. H. Bell, J. Mossop, A. Rabagliati, H. J. Butler. *Auditors:* Dr. W. J. Parkinson, Dr. E. G. Peck.

REVIEWS.

THE PRINCIPLES AND PRACTICE OF MEDICINE. Designed for the use of Practitioners and Students. By WILLIAM OSLER, M.D., LL.D.Edin., F.R.S., F.R.C.P., Professor of Medicine Johns Hopkins University, Baltimore. Third Edition. Edinburgh and London: Young J. Pentland. 1898.

THE third edition of Dr. OSLER's admirable textbook is assured of a warm welcome. The first edition appeared six, and the second three, years ago. This new edition has undergone thorough revision. Many articles have been rewritten, among others several of those on disorders of the liver and of the bile channels. In this connection Dr. Osler expresses his obligation to Dr. William Hunter's articles in Allbutt's *System*.

The article on vaccination has also been rewritten, and we notice with pleasure that Dr. Osler refers to the Jenner Centenary Number of the BRITISH MEDICAL JOURNAL as "particularly valuable." He also mentions with approval the Facts about Small-pox and Vaccination which were printed in the JOURNAL last year, and have since been issued as leaflets. He expresses the opinion that they will be of the greatest value to public health officials who wish to distribute in a handy shape a statement of the true facts of the matter. Dr. Osler recommends that calf lymph should invariably be used, and from his own experience is able to give an account of the epidemic in Lower Canada in 1870-71, and the great outbreak in Montreal in 1875. He reminds us that "a great deal of feeling had been aroused among the French Canadians by the occurrence of several serious cases of ulceration, possibly of syphilitic disease, following vaccination; and several agitators, among them a French physician of some standing, aroused a popular and widespread prejudice against the practice. There were indeed vaccination riots. The introduction of animal lymph was distinctly beneficial in extending the practice among the lower classes, but compulsory vaccination could not be carried out. Between the years 1876 and 1884 a considerable unprotected population grew up and the materials were ripe for an extensive epidemic. The soil had been prepared with the greatest care, and it only needed the introduction of the seed, which in due time came............with the Pullman-car conductor from Chicago, on the 28th of February, 1885. Within the next ten months thousands of persons were stricken with the disease, and 3,164 died."

We shall not attempt to give a list of the articles which have been rewritten or very greatly revised. It will suffice to say that the new edition will confirm and consolidate the high position which the book gained on its first appearance. We know of no work which would be more useful either to the painstaking student or to the practitioner who, having been some time in practice, desires to have a compact work to refer to which he may be sure will reflect the most recent advances both in pathology and in treatment.

Diseases of Women. A Treatise on the Principles and Practice of Gynecology for Students and Practitioners. By E. C. Dudley, C.M., M.D., Professor of Gynecology, Northwestern University Medical School; Gynecologist to St. Luke's Hospital, Chicago. London: Henry Kimpton. 1898. (Roy. 8vo, pp. 636, 422 illustrations. 21s.)

In his preface the author explains the method of arrangement he has adopted in dealing with his subject. His aim has been to "preserve the autonomy of each pathological process as it affects the different pelvic organs." The book is accordingly divided into five parts, as follows: I. General Principles; II. Inflammations; III. Tumours, Malformations, and Tubal Pregnancy; IV. Traumatisms; V. Displacements and Pelvic Massage. The practical advantage he believes to be that "the student will have a much more rational and comprehensive view of metritis by closely associating it with vulvovaginitis and salpingitis than by regarding it as a distinct and independent lesion." While this may be true as regards the inflammatory conditions, it hardly justifies the association of tumours and tubal pregnancy—conditions which from a pathological standpoint have no affinities whatever.

The antiseptic technique advocated by the author is elaborate and remarkable. In performing cœliotomy, he urges that the operator, assistants, and nurses should all remove their ordinary garments and put on special clothing before entering the theatre. A gauze turban should be worn by the operator, to prevent particles falling from his hair upon the field of operation, while a special assistant should be told off to wipe perspiration from his brow with a sterilised towel. In preparing the patient the intestinal contents should be disinfected by the administration of salol or salicylate of bismuth, after a course of purging. And in infective cases it is a "wise precaution" to curette the endometrium before opening the pelvic cavity.

In the chapters on inflammatory conditions, recent bacteriological researches receive adequate recognition, and throughout the latest developments of operative procedures are fully described.

The chapters on Perineorrhaphy are admirable; the author has been unusually successful in overcoming the difficulties attending the verbal exposition of operations, and the subject is very fully illustrated by 29 original drawings.

On the whole the text is clearly written, but at times the author's English fails him, as on p. 18, where Mr. Bland Sutton is stated to have made a "series of observations on the Fallopian tubes of women removed during menstruation." The illustrations are all remarkably good, and reflect great credit on the publishers.

Atlas der Haut-Krankheiten. [Atlas of Skin Diseases.] Von Dr. F. Mracek. Lehmann's Hand Atlas Series. Munich: J. F. Lehmann. 1899. (Cr. 8vo, pp. 173; 65 coloured plates. M.14.)

This work fully sustains the high standard of the series to which it belongs. It is in the case of cutaneous diseases that illustrations acquire, perhaps, the highest importance; and one cannot study those presented without being struck by their truthfulness and realistic character. Although almost all are of reduced size the amount of detail shown is astonishing; and, with few exceptions, they leave absolutely nothing to be desired, whether for accuracy or artistic effect.

The few half-tone plates are unsatisfactory; for, with the bare exception of indicating the distribution of cutaneous lesions, such figures are as valueless as plaster casts. The group of syphilides is omitted, since these are dealt with in an atlas especially devoted to the subject of venereal disease. Four plates are allotted to carcinoma. These are, perhaps, amongst the less satisfactory, and might have been well omitted for certain others which are conspicuous by their absence. Carcinomata of the penis and vulva, etc., are, in fact, such strictly surgical affections that they are out of place in works devoted to cutaneous diseases.

Amongst obvious omissions might be mentioned as some: Molluscum contagiosium, cheloid, lymphangeiectodes, and the class of medicinal eruptions the only illustration of which is hyperchromatosis, due to the administration of Fowler's solution. The work, however, is not an atlas only, the plates of which are accompanied with descriptions and histories, but each disease is briefly described in the text, and under each are given the therapeutical indications, with numerous formulæ both for internal and external remedies.

The whole of the text occupies only 173 pages, and the nomenclature adopted is one easily followed and generally recognisable.

Chirurgie de l'Utérus. [Surgery of the Uterus.] Par Henri Delagénière, Membre Correspondant de la Société de Chirurgie de Paris. Paris: Institut de Bibliographie Scientifique. 1898. (Roy. 8vo, pp. 460; 378 illustrations. Fr. 10.)

This work is not a short epitome of uterine surgery, nor is it encyclopædic, but something between the two extremes—a synopsis after the type of Greig Smith's *Abdominal Surgery.* M. Delagénière's own methods, as practised in Le Mans, are succinctly described, whilst precisely similar sketches of operations practised by others are added. The author supplies his readers with an abundance of rough but clear and instructive drawings, showing the different steps of these surgical procedures. In respect to these illustrations we must say that even more of this class might have been afforded us, instead of the unnecessary woodcuts of Zwanck's and Hodge's pessaries and Sims's curette. On the other hand, every house-surgeon will feel that the author was right in figuring—in a row—the instruments needed for certain rather new operations where his own experience has proved that they are the best tools for the purpose.

We will not criticise the individual operations, first, because so many are recapitulated that our space would not allow it; secondly, because all are known already and have been specially described by the author and the authorities whom he quotes; and lastly, for a reason more important to the reviewer, namely, M. Delagénière's declaration in the preface that he reports the proceedings of others without allowing himself to stray for a moment into the domain of criticism. He desires, he wishes us to know, to be scientifically impartial. For this reason the author brings down criticism upon himself. Certain proceedings, if not to be condemned, should be passed over unnoticed. Few British gynæcologists can approve of the Belgian practice of performing retroperitoneal abdominal hysterectomy for prolapse of the uterus. The operation is described clearly, as is the case throughout the volume, and there is no criticism at the end of the description. This is consistent with the preface. But we find a paragraph on "Indications" which implies at least partial approval.

All the descriptions of abdominal, vaginal, and combinahysterectomy are first rate for teaching purposes, and of the greatest value to the specialist who is convinced that a new method of operating foreign to his personal experience deserves adoption, yet is unable to see the method carried out by others. To meet this want is the chief responsibility of an authority who undertakes to teach the qualified. M. Delagénière knows this duty well: he is aware that in what is often termed post-graduate instruction the student requires simplicity and lucidity just as much as though he were an unqualified "first-year's man" learning his bones. In short, few manuals deserve better the verdict "most instructive," nor is the reader confused by references, statistical tables, or histories of the introduction of new operations. The book proves, if proof were needed, that we are as yet far from perfection in uterine surgery. M. Delagénière is on the right path, as he teaches those who think of practising on new lines to know first what they are about; and hysterectomy, in which he is deeply experienced, includes uncertain elements. One man's practice is never perfect, so that the author is right in relating that of others. He seems to err, as we have said, not in omission, but in quite the opposite direction.

NOTES ON BOOKS.

It is a sign of the increased interest taken in physical education that two handbooks on the subject should have issued from the Scottish press within a few months of each other. Mr. H. RIPPON SEYMOUR, Gymnastic and Fencing Master, George Watson's College, Edinburgh, states that his *Physical Training: its Theory and Practice* (Edinburgh: E. and S. Livingstone. Crown 8vo, pp. 132. 2s. 6d.) is a handbook for......"young or old, the parent or the child," etc.; but we venture to doubt whether the chapters on "simple anatomy," "the muscular system," and "the nervous system," bristling as they do with technical terms, will be found attractive reading by children, or even youths, of either sex. These chapters have evidently been written with great care, but whether the author's claim to have been "the first to attempt to connect the theoretical and practical sides of training in one book" be valid we cannot decide in the absence of dates of publication. Two excellent plates of the muscular system (from original drawings by Mr. Dandie) form a frontispiece, and there are numerous illustrations of positions at drill. The author is a disciple of Sandow in his insistence on the principle of *festina lente* in gymnastic exercise, and quotes his maxim that "strength comes gradually, and to some very slowly." The physiology of training is fully discussed, and the good effects of grape sugar as a muscle food pointed out. Going "stale" (from overtraining) is described as "autopoisoning." The book closes with chapters on Elementary Hygiene and Hints to Teachers, and there are several useful tables in an appendix. Dr. William Taylor has written an introduction commending the purpose of the book.

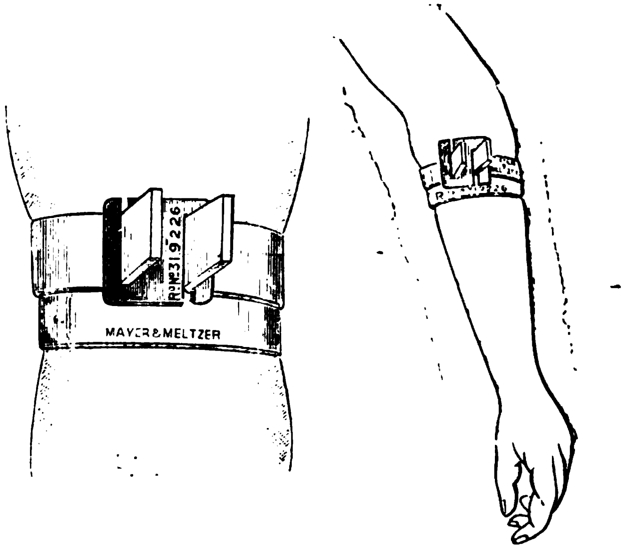
Another edition of Professor ESMARCH's well-known lectures on *First Aid to the Injured* having appeared, H.R.H. Princess Christian has again given us a translation of them, and we notice that this, the sixth English edition (London: Smith, Elder and Co. 1898. Fcap. 8vo, pp. 117, 24 illustrations. 2s.) has a few additions, chiefly in the lecture on nursing. The utility of the book for the purpose for which it is intended is evidenced by the fact that it has been translated into no fewer than seventeen languages. The descriptions and directions given are plain. and are calculated, as Princess Christian remarks in the preface, to supplement ambulance lectures, and to interest more women, and we may add men too, in learning how to render first aid to their suffering fellow creatures.

THE INTERNATIONAL MEDICAL CONGRESS.—A provisional Committee for the German Empire in connection with the forthcoming meeting of the Thirteenth International Medical Congress which is to be held in Paris in 1900, has just been formed. The President is Professor Rudolph Virchow, the Secretaries Professors Posner and Eulenburg, and the Treasurer Dr. H. Bartels.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

The University Tourniquet.—This appliance, supplied by Messrs. Mayer and Meltzer, is a decided improvement on previous forms of the elastic tourniquet, and seems well adapted to meet the difficulties so often experienced in applying equable and extended pressure without undue constriction, and in maintaining, without the risk of a slip, the required degree of compression. This tourniquet consists of a flat rubber band, such as was introduced by Mr. Pollard some years ago, and has been found superior to the round cord, from the facts that it causes less constriction of the deep tissues of the limb to which it is applied, and is much less likely to produce abrasion of the skin. The novel feature in the appliance is the fastener, which, being very simple, can be readily used, and is not liable to fail or to get out of order. This fastener consists of a metal plate with two slots, which hold the rubber band firmly at any part. The appliance, which can be rendered surgically safe by immersion in an antiseptic solution, may be applied directly to the skin, and in its use there is no necessity for the intermediate application of lint or a bandage.



An Apparatus for Applying Constant Heat.—An appliance supplied by the "Perfect" Automatic Hot Appliances Company, Dashwood House, New Broad Street, E.C., consists of ingeniously arranged metal cylinders, in which water is heated by an automatically regulated safety alcohol lamp, the water being forced out through a rubber coil and brought back without evaporation to be reheated, thus maintaining a continuous heat of any desired temperature, either constant or gradually increasing, for as long a time as needed and requiring very little attention during many hours. This is intended to be used in place of a hot water bottle or poultice, and for any purpose where heat, either moist or dry, is desired. Its chief advantages claimed are that heat can thus be readily applied to almost every part of the body, and that an even degree of temperature can be maintained for many hours without disturbance of the patient. This method of applying heat seems capable of being developed with great benefit to those suffering from different forms of chronic rheumatism, and will be found useful in that much diminished class of cases in which poulticing or fomentation may be indicated.

THE WATER ENTERPRISE OF SOME OF OUR LARGE TOWNS.

V.—GLASGOW.

Early Supplies from Local Wells.

At the close of last century Glasgow derived its water supply from some thirty pumps in various public places and a few other wells on private property. So long ago as 1780 Henry Bell, by whose ingenuity afterwards a steamship first ran in British waters, suggested, it is said, the bringing of water to Glasgow from the Clyde above the Falls, but the suggestion though afterwards repeated more than once was never carried into effect. In 1799, indeed, the Town Council were so sensible of the urgent needs of the city that they appointed a committee of their number to consider or frame schemes for supplying the town with water. This committee next year consulted Mr. Bryce McQuiston, who recommended the establishment of five steam pumping stations to raise river water for the use of the inhabitants. This plan however met with no very enthusiastic reception, but the fact of its having been reported upon and considered shows that at the close of the last century the corporate authorities of Glasgow were not unprepared to recognise the principle of collectivism as applied to water enterprise.

The Formation of the Glasgow Water Company.

In 1805 the "magistrates and council" subscribed £1,000 for twenty £50 shares in a company formed to provide Glasgow with water, and in the following year they petitioned Parliament in favour of the scheme. They appointed a committee to examine the Bill that was to go before Parliament, with instructions to watch the interests of the community. This company, having obtained the necessary powers, established their works at Dalmarnock, on the banks of the Clyde, about three miles above Glasgow Bridge. As steam pumping formed an important feature in the scheme, it is interesting to know that James Watt was amongst the engineers consulted. He assisted in drawing out plans and establishing the works. These at first consisted chiefly of ponds and filtering beds on the north side of the river, and two, for that time, large engines by Bolton and Watt. There were also reservoirs at a higher level to which these engines pumped the water from Dalmarnock. The filters were probably less efficient than the steam engines, for soon others were necessary. Amongst these latter the somewhat primitive contrivance was resorted to of a brick tunnel below the level of the stream in the alluvium on the south side of the river. This culvert was somewhat on the principle of a land drain. It was laid in the sand close to the stream, and had open joints to allow the subsoil water to enter freely. The water thus tapped was estimated to average some 3 million gallons a day. The quantity, and still more important the quality, varied with the state of the river. When the latter was low the quality left much to be desired.

The Cranston Hill Water Company.

In 1808 a rival company, unsupported by the Corporation, established itself under Parliamentary powers at the western end of the town, drawing water also from the Clyde, but below instead of above the bridge. These Cranston Hill Waterworks were afterwards supplemented by the construction of another pumping station a short distance below the original works of the older company. These two companies for many years competed with one another, and at length combined. Their first attempt at amalgamation in 1834 was, however, vigorously and successfully opposed by the Corporation, who exacted as the price of withdrawing their opposition to a later Bill some years afterwards certain conditions favourable to the town. Neither company paid any dividend at first. The Cranston Hill Company at no time paid more than 1 per cent., but the other and older company after its eighth year paid a fair dividend, and its shares at one time appreciated considerably. The amalgamation took place in 1838.

Other Water Schemes Early in the Present Century.

Meantime other schemes had been under consideration. In or about 1834 Messrs. Grainger and Miller, of Edinburgh, commissioned by the City Council to look for other supplies, recommended the Earn Water, a tributary of the White Cart, which itself joins the Clyde a little below Renfrew. The junction of the Earn Water and the White Cart takes place about seven miles south of Glasgow, at an altitude about 300 feet above the Broomilaw, an elevation sufficient to allow the promoters to supply the city by gravitation. Three reservoirs to store the water above the junction, and a compensation reservoir in the White Cart below, were suggested. A drainage area of 5,371 acres would, these engineers considered, yield the town 10 millions of gallons a day.

In 1836 a company was suggested, and a Bill lodged, to bring water from the North Calder, near Airdrie. The Avon below Stonehouse was also suggested, but there were objections to both plans.

Many other schemes were framed all with points in their favour, and nearly all yielding a safer water than that supplied by the company. The Clyde above the Falls, the sources of the Kelvin, then a somewhat purer stream than the dark brook flowing past the present university buildings, the Endrick and Blane were all suggested, and at length the company in self-defence actually promoted, and carried in 1846, a Bill for bringing water to Glasgow from Loch Lubnaig in Perthshire.

The Gorbals Supply.

In 1845 the barony of Gorbals, later an integral part of Glasgow, established a company of its own, and this company obtained powers to bring water to Gorbals from the Brockburn, a tributary of the White Cart. This burn rises from lakes in the basaltic formation to the south-west of the city. The catchment of the original 1845 scheme, was about 2,560 acres, and a storage was provided of over 1,000 million gallons. Under powers conferred in 1846, the lower reservoirs were erected during the years 1847 and 1848, while the uppermost and largest was built in 1853-54 under powers conferred in 1850. The company also supplied Renfrew and Rutherglen. These works have actually yielded the estimated 4 million gallons a day, equal to 194 days' supply for the district served, with its then population. The water is pure. It has only 1½ gr. of organic matter, and 3½ gr. of mineral matter to the gallon, and a hardness of 3°. It is very similar to but a little softer than the Earn water already mentioned. The supply is still in use, further reservoirs and filtering beds having been added.

The First Suggestion of Loch Katrine.

Such, then, was the state of matters and such the supply of water to Glasgow by private enterprise some half century ago. The barony of Gorbals, it will be seen, was fairly well off, the city itself but indifferently so. In opposing the union of the companies the Town Council not only pleaded against monopoly, but alleged that promises to keep the mains full at night as a precaution against fire had not been carried out, and, as was said, they extracted favourable conditions as the price of their somewhat reluctant consent. In 1852 the promoters of another, and an important, enterprise memorialised the Corporation to relieve them, and municipalise the water supply in the following manner:

Dr. Rankine and Mr. Thomson had prepared for this company a scheme for bringing a supply from Loch Katrine. As there was difficulty in floating the company these two enterprising engineers, who had carefully surveyed the whole ground, laid their views before the "magistrates and council." In their memorial they pointed out that the existing Clyde supply was derived from a river which contained "the drainage of a great extent of moss, of a still greater extent of cultivated land, of mines of coal and ironstone, and of many towns, villages, and manufactories," that the water therefore held "in solution and diffusion impurities of a disgusting and unwholesome nature, which are not removed by filtration;" that the sources of such impurities must be expected to increase; and that "to facilitate the pumping of this supply from the Clyde, a weir is maintained, which injures the navigation by interrupting the tidal flow and intercepting the current of fresh water."[1] These gentlemen then alluded to the advantage of a gravitation scheme from an economic and of a pure mountain supply from a health standpoint. These had been in a way admitted by the water company themselves six years earlier when they obtained powers, which, however, they never used, to bring water from Loch Lubnaig. These engineers showed that the company's scheme just mentioned was ill-conceived and impracticable as proposed, and they insisted upon the advantages of the source they had selected, for the following amongst other reasons. The elevation of Loch Katrine was greater than that of Loch Lubnaig, and as its distance was about the same, a greater head of water was available. The greater elevation gave greater facilities for constructing conduits, as these could be kept along the hills. The valleys of the Forth and Teith did not need to be crossed by the Trossachs scheme. The natural outlet of Loch Katrine lent itself favourably to a simple and inexpensive method of increasing its storage capacity.

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[1] *History of the Water Supply to Glasgow*. By John Burnet, Secretary to the Glasgow Corporation Waterworks Commissioners. 1869. Glasgow: Bell and Bain.

THE COUNCIL ATTRACTED BY THE SCHEME.

A Committee again sat on the whole question, which was, as it were, focussed by the desire of the water company to obtain renewed and altered powers for their Loch Lubnaig scheme. The Council, on the advice of this Committee, unanimously declared by resolution that it was now desirable that the water supply of the city should be in the hands of the "magistrates and Council" as a separate trust for the benefit of the inhabitants. The resolution was followed by action. The Council at once set about the selection of an independent engineer to guide them, and chose Mr. I. La Trobe Bateman, of Manchester and London. On the advice of Mr. Bateman, they opposed the new Bill of the company. The next step was to authorise their engineer to complete his survey. As early as August 15th, 1853, the latter presented his second report.

TWENTY MILLION GALLONS WANTED AT ONCE.

In this he stated that, in addition to the supply by the Gorbals Company, the then needs of Glasgow necessitated the provision of at least 20 million gallons daily, and that even this additional quantity would, if the population continued to increase at its old rate, be insufficient ten years later. Any new source of supply, therefore, should provide not less than these 20 millions for immediate purposes, and be capable of extension from time to time to a much larger amount. The Endrick water was capable of giving 17 millions, and the conduits could be arranged so as to be extended to Loch Katrine, from which a further supply up to 40 million gallons could be obtained. The Endrick water would, however, on account of its mossy character, require very careful and somewhat expensive filtering. Other waters proposed had the same fault, and he therefore counselled going to Loch Katrine at once, where even heavy autumn rains had very little effect on the purity and colourlessness of the supply.

THE SCHEME BEFORE PARLIAMENT.

Little difficulty was experienced with the Glasgow Water Company. They agreed to sell at a price to be settled by arbitration. An important question, however, arose in the House of Commons, when Dr. Penny, of the Andersonian College, pointed out to the Select Committee that the Loch Katrine water, excellent and pure as it was, seemed to him to dissolve lead very freely. In his able and cautious evidence, he pleaded rather for extended inquiry than that his results should be regarded as final. As the promoters seemed to have entirely overlooked this serious question, a long adjournment was agreed to, and a galaxy of chemical talent selected to help the Corporation to a decision in this important matter. Another opposition, prompted, it was thought, by the Forth Navigation Commissioners, was that of the Admiralty, who feared that the depletion of the Forth and Teith by the daily abstraction of 40 to 50 million gallons might endanger the usefulness of the upper portion of the Firth of Forth, between Queensferry and Stirling, as a safe harbour for war ships. The Committee accordingly found the preamble not proved.

The little bill of the Glasgow Corporation for their defeated attempt in 1854 to secure the pure water of Loch Katrine for the town came to upwards of £11,000, making, with the cost of opposing the water company the previous year, an expenditure of £17,000, and the work apparently no further advanced. The Admiralty objection seems to us nowadays to be somewhat absurd, for mountain streams, it is well known, dammed up by storage reservoirs, and supplied with the usual amount of compensation water, have, during the dry season, an actually larger flow than is the case where such torrents run an uninterrupted course to the sea. The lead question was, however, from a sanitary point of view, more important, and, in the light of later knowledge, one hardly to be disposed of by a few laboratory experiments completed in a few months at one season only of the year, and a postponement which gave time for a more extended inquiry on this point is perhaps not altogether to be regretted. During the intervening year the Corporation consulted Messrs. Stephenson and Brunel on the whole scheme, and most of the former opponents having had their eyesight somewhat improved by the judicious exhibition of golden ointment, and the Admiralty not pressing their report, the Committees in both Houses being satisfied on that score by the engineering experts, the Bill passed triumphantly into law in 1855.

THE POWERS GRANTED.

The Act of 1855 enabled the Council to buy out the Gorbals as well as the Glasgow Company on terms agreed upon. The magistrates and Council of Glasgow and their successors in office were appointed Commissioners, and the Act enabled them to act by a committee of their number. The Commissioners, while authorised to make and maintain certain works, take lands, use streams, etc., were prevented from raising the water in Loch Katrine to a greater height than 4 feet above the summer level without the consent of the proprietors, or, on the other hand, from drawing off water more than 3 feet below that level. In Loch Venacher, which is used solely for compensation purposes, they were in the same way restricted to 5 feet 8 inches above, and 6 feet below, the ordinary summer watermark. They were allowed to raise Loch Drunkie 25 feet. They were restrained from taking more than 50 million gallons of water from Loch Katrine in any one day, and were required to discharge into the Teith, from Loch Venacher 40½ million gallons daily, with certain definite conditions as to hours of discharge. Needless to say, the salmon fishery was considered in the construction of artificial outlets.

The works were commenced on May 20th, 1856, the initial blast being fired by a tap of the hammer by Mr. Stewart, who had been Lord Provost, and a most active promoter, when the scheme was initiated. On October 14th, 1859, the Queen turned on the water to Glasgow.

THE CHIEF FEATURES OF THE SCHEME IN 1859.

Loch Katrine is 360 feet above ordnance datum and 34 miles distant from Glasgow. The water flows from the lake into a tunnel 8 feet in diameter, 2,325 yards long, and 600 feet below the summit of the hill it pierces. There were at the time of the opening 69 other distinct tunnels of the same diameter, measuring together 11½ miles, the longest being 2,650 yards. The area of the three lakes laid under contribution for supply and compensation was 4,000 acres, and the available capacity within the limits already mentioned 10,000 million gallons. The catchment area was nearly 49,000 acres and the storage capable of supplying the inhabitants of Glasgow with 50 millions of gallons a day for 120 rainless days. The cost of the works, including the purchase of the rights of the two companies bought out, came to a million and a half, and the estimated population of the area to be supplied was at the time of the opening about half a million souls.

FURTHER EXTENSIONS.

The capital account in 1898 is upwards of 3½ million and the population of the area of supply 932,000. Last year the daily supply from Loch Katrine averaged more than 46½ million gallons, and from the Gorbals works close upon 5 millions more, an increase of 1½ million in the amount supplied in the previous year.

Already the limits of the supply contemplated in 1855 are within sight. The Corporation, however, have now power to raise the level of the loch 5 feet more, increasing the storage capacity by nearly 4,226 million gallons, and the available daily supply from 50 to 65 million gallons. An additional 10 millions can be obtained by raising the level of Loch Arklet 25 feet. This lake drains into the Leven and the Firth of Clyde. Its upper end will be connected to Loch Katrine by a tunnel 700 yards long. Allowing for the compensation, the storage of 2,059 million gallons to be provided in this loch will enable the city to draw its 10 millions for 175½ rainless days. The Corporation have the powers for this work and have purchased the owners' rights. Naturally the structural alterations will be delayed as long as possible. The conduit to Loch Katrine has been duplicated in its entire length. The new aqueduct has a shorter course than the original one, Mr. J. M. Gale preferring to tunnel rather than bridge or siphon, on engineering grounds, the principal of which is the greater difficulty in keeping an exposed channel upon arches watertight.[2] The connections between the two conduits are already serviceable when repairs have to be executed. Where several lines of pipes are to be put down over the same section of the aqueduct, naturally only those needed immediately are yet laid, but the tunnels are, of course, made the full size. The level of the loch has yet to be raised. In a couple of years all the works—except the unneeded pipes—are expected to be complete.[3]

Though Glasgow has not, like Birmingham, Liverpool, and Manchester, bought up the catchment area, the feuing rights have, however, been secured, so that pollution of the sources can be prevented. If some of the towns named have gone to greater distances for their supply, it must be remembered that in large water schemes Glasgow has been very much of a pioneer. She, indeed, long ago set the example of gigantic municipal enterprise in the direction of water supply.

THE REPORT OF THE MEDICAL OFFICER OF HEALTH OF LONDON FOR 1897.

III.

ADMINISTRATION.

DAIRIES, COWSHEDS, AND MILKSHOPS.

DURING 1897 the County Council's inspectors made 21,284 inspections of dairies and milkshops. In 230 instances cases of infectious disease occurred at registered milkshop premises, 123 being of scarlet fever, 82 of diphtheria, 15 of enteric fever, 3 of erysipelas, 1 of puerperal fever, and 6 of measles. In every case the Council's inspectors visited the premises with a view to aid the local sanitary authority in ensuring the adoption of measures to prevent contamination of the milk.

SLAUGHTER-HOUSES.

There has been a progressive decline in the number of applications for the licence of slaughter-houses granted in each of the last seven years, and the number now licensed amounts to only 456, or about 200 fewer than in 1891. This large reduction is no doubt due to the making of the new by-laws, with which the licensees were either unable or unwilling to comply. It may be said that the remaining public slaughter-houses in London for the most part comply to a fair standard of sanitation; but so long as animals continue to be killed in numerous private slaughter-houses, there cannot be sufficient inspection at the time of slaughter—the only time when inspection can be effectual; nor, indeed, can London claim special facilities for the inspection of that dead meat coming into London from other parts of the country which is not taken in the first instance to the markets of the City Corporation. It is certainly a reproach to the sanitary administration of London that no system exists to prevent unwholesome and dangerous meat finding its way to the premises of those who trade in it. All will agree with Mr. Shirley Murphy that there is an urgent necessity for the institution of an administrative system of meat inspection which shall serve to protect the poor, who, being the purchasers of cheap meat, must be the chief sufferers.

SMOKE NUISANCES.

There are few more important branches of sanitary work performed in London than that which aims at reducing the pollution of the atmosphere by unnecessary smoke, and it is satisfactory to note that each year sees the different sanitary authorities more active and alert to this end. The number of smoke consumers on the market increases year by year, but few appear to be satisfactory; one or two, however, generally effect their object, and as intelligent and careful firing and the use of proper fuel generally in themselves suffice to abate the nuisance caused by black smoke, there is no sufficient excuse for the offence, and magistrates generally appear to show undue leniency towards offenders.

NUISANCE FROM STABLE MANURE.

The increased use of peat-moss litter for horses has given rise to much complaint, and many metropolitan medical officers of health draw attention to it in their reports. This material is used from motives of economy; being of a highly absorbent nature it becomes quickly charged with urine, and since the horsekeeper generally only rakes away the soiled portions, the material is so saturated with excreta that when it is temporarily stored and then carried through the streets it gives rise to an intolerable nuisance. The remedies generally recommended, and in some cases adopted, are in the direction of a more liberal use of the litter and more prompt removal from the stable. To promote the latter object several medical officers of health recommend that the refuse should be placed at once, on removal from the stable, into the vehicle in which it is to be taken away from the premises.

REMOVAL OF HOUSE REFUSE.

During the year the Public Health Department continued its investigations into the manner in which the authorities were effecting the removal of house refuse, so as to comply with the Council's by-law that this refuse should be removed not less frequently than once in each week; and inquiries by the Council's inspector at Holborn, Marylebone, St. Luke, and Hackney, showed that although he found many accumulations of two or more weeks in each of these parishes, some progress is being made in London in connection with the more frequent removal of house refuse. A weekly call of the dust collector at each house is being more generally made, and, by degrees, the London householder is falling into line with this requirement, and is giving facilities for the removal of his domestic refuse.

NUISANCES FROM SEWERS.

The subject of nuisance from sewer ventilators and of the flooding of basements with sewage is discussed in the report, and extracts are given from the reports of metropolitan medical officers of health, showing that both subjects have demanded considerable attention, more especially in some districts.

HOUSING OF THE WORKING CLASSES, ETC.

During 1897 several schemes were either undertaken or contributed to by the Council under Part I of the Housing of the Working Classes Act. Though by-laws or regulations dealing with houses let in lodgings have been made in every London district, it appears that only in a limited number of districts is any considerable effort made to enforce them; and there seems to be some lukewarmness on the part of metropolitan medical officers of health as to their value. The number of common lodging-houses on the register at the end of the year was 581, providing accommodation for 28,718 persons; and Mr. Shirley Murphy testifies to a marked improvement in their condition.

FACTORIES AND WORKSHOPS.

Ample evidence is given in the report that improvements are being effected in numerous workshops in the metropolis, more especially in those districts where inspectors have been appointed entirely for this work.

UNSOUND FOOD.

A large amount of food, usually consisting of fish, fruit, vegetables, eggs, and poultry, were condemned as unfit for human consumption in a number of districts. The largest amount of meat condemned in any district was in the City, where 918 tons in all were seized.

DISINFECTION, ETC.

Although sulphur dioxide is generally used for room disinfection in London, the work of disinfection appears to give general satisfaction. The medical officer of health of Paddington gives the result of a careful inquiry concerning the appearance of secondary cases in invaded houses, and he comes to the conclusion that in about 3 per cent. only was there reason to think that some failure in the disinfection had taken place.

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[2] Paper read by Mr. Gale before the Institute of Engineers and Shipbuilders in Scotland, March, 1895. Reprinted by Wm. Asher, Glasgow, 1895.

[3] Report by the Water Committee to the Corporation, 1898, furnished to us with much other valuable information by Mr. Bowers, the Deputy Town Clerk, and to whom we wish gratefully to express our indebtedness.

The action taken by sanitary authorities under the Cleansing of Persons Act is shown in several of the reports of the medical officers of health. This Act, in its relation to London, empowers every sanitary authority, "when in their discretion they see fit, to permit any person who shall apply to the said authority, on the ground that he is infested with vermin, to have the use, free of charge, of the apparatus which the authority possess for cleansing the person and his clothing from vermin."

The results of the examination—chemical and bacteriological—of the water supply of London, and some proceedings of the Council in matters affecting water supply, etc., close the report, to which is appended five special reports which have already been referred to in the columns of the BRITISH MEDICAL JOURNAL.

THE PREVENTION OF TUBERCULOSIS.

BOURNEMOUTH.

AT a meeting of the Bournemouth Medical Society on January 18th, the President introduced a debate on the subject, Should the Bournemouth Medical Society take any active part in the campaign again tuberculosis, and, if so, in what way will it be best to move in the matter? He said he thought the local medical society should take an active interest in the matter, and co-operate with the National Association for the Prevention of Consumption. He did not think the matter should be left solely to private enterprise to establish sanatoria for the so-called open-air treatment of tuberculosis.

The President and Dr. Arthur Ransome having given some particulars of the National Association, it was unanimously resolved:

> That the Bournemouth Medical Society approve the necessity of forming a local branch of the National Association for the Prevention of Consumption and other forms of Tuberculosis, and that seven members be appointed to act with an equal number of the Town Council, thus forming a Provisional Committee to further consider the matter.

The following members were proposed on behalf of the Medical Society, namely: Drs. J. Roberts Thomson, Arthur Ransome, F. Winson Ramsay, D. M. Ross, W. Vicary Snow, T. Fred. Gardner, and H. G. Lys.

At a meeting of the Town Council, held on January 19th, the Council appointed the following seven members, namely, the Mayor, Aldermen Hirons and Hosker, Councillors Roker, Jolliffe, Mate, and Kinsey-Morgan, to serve on the Provisional Committee, proposed by the Medical Society to consider the desirability of forming a local branch of the National Association for the Prevention of Consumption and other forms of Tuberculosis.

CAMBRIDGE.

At a meeting of the Cambridge Town Council on January 20th the Sanitary Committee reported that the Medical Officer of Health had presented a report on the subject of tuberculosis, wherein he suggested: first, that the public should be informed of the ways in which tuberculous disease may be disseminated, and the measures to be taken for its prevention; secondly, that sanitary authorities should be given power to take such steps with regard to phthisis as they are now empowered to take in cases of non-notifiable infectious diseases; and, thirdly, that the cows of the various districts should be tested for tuberculosis free of charge. A leaflet had been drawn up by the Chairman, in conjunction with the Medical Officer of Health, for giving information to the public under the first head, and a memorial to the Local Government Board had also been prepared by the Town Clerk and the Medical Officer of Health asking the Board to consider the desirability of introducing a Bill in the next session of Parliament giving to sanitary authorities the powers mentioned in the second suggestion. The Committee recommended the Council:

> (1) To concur in the distribution of the leaflet above referred to.
>
> (2) To authorise the Town Clerk to affix the corporate seal to a memorial to the Local Government Board to the effect above stated.
>
> (3) To offer to test for tuberculosis the cows of the various dairies supplying milk in the borough, with veterinary assistance and free of charge.

Mr. Alderman HYDE HILLS (M.R.C.S., L.R.C.P.), in moving the adoption of the report, said it was their duty as a sanitary authority to do all they could to stop the spread of the disease. Certain steps they proposed to take would help considerably in that direction. The first thing they had done was to issue a leaflet of warning and instruction to be distributed to every householder. The second proposal was that the Town Council should petition the Government to make an alteration in the law so as to include tuberculosis in the second rank of infectious diseases. Such an alteration would clear away nearly all their difficulties in dealing with the subject; and, therefore, he would urge most strongly that the Town Council should allow its seal and its authority to be affixed to the petition. They had, of course, certain powers under the Dairy, Cowsheds, and Milkshops Order, and under their by-laws, but those powers were very limiting in dealing with the subject. In the Order it was unlawful to sell milk that was exposed to contamination by persons suffering from a dangerous infectious disease, but in the present state of the law that definition did not include phthisis. The third proposal was one which involved a little further explanation. The chief causes of infection were: (1) Through tuberculous meat; (2) from tuberculous milk; (3) from the direct infection of one person to another in various ways. With the third they had nothing to do that day, excepting what he had already said about the leaflet. With the first the sanitary authority would, as he had already stated, take such steps as were possible to prevent tuberculosed meat being exposed for sale. The second cause, however—that from milk—required the help of the Council. In May of last year the late Professor Kanthack and Dr. Sladen commenced a careful examination of the milk of the dairies supplying the colleges. He had the result of that examination. There were sixteen dairies and in 9 of them tubercle was found in the milk, that was to say, in rather more than 50 per cent. Dr. Kanthack and Dr. Sladen made experiments by inoculation of guinea-pigs with the milk. Six specimens of milk from each dairy were taken. Each specimen was examined in the ordinary way for tubercle, and also injected into a guinea-pig. Ninety guinea-pigs were inoculated in all, with the astonishing result that 23 died of tuberculosis, giving a percentage of 25.55. The ordinary bacteriological analysis accurately corresponded with the results obtained by inoculation. The representatives of the colleges were so struck by these results that they had already taken steps to have the cows of the dairies supplying them examined periodically by the tuberculin test, so as to eliminate as far as possible the chances of tuberculous milk being supplied. In that, he understood, they had been met by the proprietors of the dairies, and the probability was that the cost would not be very great. but would be shared between the sellers and the buyers. If that had occurred under their noses surely it was time they took some action, considering that their milk supply came from practically the same sources; and they asked for power to take the same action as the college authorities had done. After referring to what he had done in the direction indicated in Denmark, Germany, and America, Mr. Hyde Hills spoke of sanatoria. He said that sanatoria were excellent means of treating the disease when contracted, but they might perhaps hope that by preventive measures they could eradicate it altogether in much the same way as it was hoped to eradicate hydrophobia. It was not a final report of the Committee. Those were imperative points, and the least they could do for the present.

Mr. Alderman REDFERN seconded, and suggested that Dr. Anningson's report should be circulated at the discretion of the Committee.

Councillor Dr. PORTER proposed that every Corporation in the United Kingdom should be invited to join in a similar memorial.

Councillor Dr. DALTON seconded.

The report was adopted, Mr. Alderman Redfern's suggestion was accepted, and Dr. Porter's proposal was referred to the Committee.

CORK.

On January 17th, Dr. R. B. TRAVERS delivered a lecture before the members of the Cork Young Men's Society, entitled Consumption and the New Crusade. Dr. Travers said that he stood before them that night as an advocate of a movement recently inaugurated by the medical profession. It was not only a national movement, but one that concerned them all (widespread), and he hoped that all the countries of Europe would awaken to its importance, and as their individual and collective co-operation was absolutely essential to the success of the movement, he hoped before he closed his lecture to enlist all present as volunteers under the standard. If this movement was earnestly taken up by the Legislature, the medical profession, and the people, it would be attended with the happiest results, and would end in the total extinction of the disease. If the people awakened to the importance of this movement victory was within their grasp. This was an Imperial work that should be met by the Legislature, and sanatoria should be established throughout the country. The only institution of this kind to be found in Great Britain was the one established in Edinburgh, which had already done excellent work. Under favourable circumstances the treatment might be carried on at the patient's home. A consumptive patient was not to be looked upon as a leper. He confidently appealed to his audience, and said that the members of that Society could take up no grander work than forming themselves into a nucleus of a branch of the National Association for the Prevention of Tuberculosis, recently started by men of light and leading in the medical world.

The CHAIRMAN (Rev. T. J. Magner) conveyed the cordial thanks of the meeting to Dr. Travers for his able lecture.

DUNDEE.

The question of the prevention of consumption and other forms of tuberculosis was considered at a meeting of the Forfarshire Medical Association held in University College, Dundee, on January 20th. Dr. Paton (Carnoustie) the President, occupied the chair, and there was a large attendance.

Dr. TEMPLEMAN (Dundee) introduced the subject, and said that of late years it had been gradually borne in upon the minds of the medical profession that some active measures should be taken for dealing with tuberculous disease. The recognition of the fact that consumption was an infectious disease, and therefore to a greater or less extent preventable, had culminated into the formation of the National Association for the Prevention of Consumption and other Forms of Tuberculosis. That meeting had been held for the purpose of considering whether the Association was to adhere to that Society. The methods of the Society were educational, not compulsory, by getting the people to understand that consumption was not an incurable disease. He moved a resolution expressing approval of the national movement for disseminating a knowledge of the true nature of tuberculosis and the best means for its prevention.

Dr. J. W. MILLER (Dundee) seconded. He said if the public authorities realised the danger they ran from the supply of tuberculous milk they would be able to induce dairymen to see that their dairies were kept in the best hygienic condition, and that their cows were free from tuberculous disease as shown by the tuberculin test. The public had this matter largely in their own hands. Dr. Miller then referred to a visit he paid to Dr. Philip's Hospital for Consumption in Edinburgh, and said they might look forward to having a similar institution in Dundee on a self-supporting basis in the near future.

Dr. URQUHART (Murray's Asylum, Perth), in supporting the resolution, said that the butchers in Perth had already formulated a plan of self-insurance, and by paying 2s. 6d. per animal they would be insured against loss if the animal were condemned. He also said in Perth they were taking steps to institute one or two cottage hospitals in suitable places for the open-air treatment of consumption. He deprecated appealing to the public for large sanatoria till the success of the smaller ones showed they were justified in doing so.

Dr. SINCLAIR (Dundee) agreed with Dr. Urquhart regarding the establishment of sanatoria. He moved that a deputation be appointed to wait on the Lord Provost, and request him to convene a public meeting on the subject.

Dr. MACKIE WHYTE seconded the resolution, and it was supported by Dr. DICKSON (Carnoustie).

Both resolutions were carried, and the following Committee was appointed to wait on the Lord Provost: The President, Drs. J. W. Miller, Sinclair, Templeman, and Halley.

BELGIUM.

An Association, entitled the Œuvre de la Tuberculose, has just been formed in Brussels under the presidency of Dr. Moeller, with the object of furthering the establishment of sanatoria for poor persons suffering from tuberculosis. The Association consists of a General Committee in Brussels, the Secretary of which is Dr. G. Derscheid, 10, Avenue des Arts; and local committees in all the chief towns of Belgium. The local committees, which are absolutely autonomous, will undertake the direction of the sanatoria established in their district. The Association is composed of patron members who subscribe 100 francs (£4) a year, and adherent members who will subscribe 10 francs a year. The new Association is altogether distinct from the Ligue contre la Tuberculose, of which an account was given in the BRITISH MEDICAL JOURNAL of April 9th, 1898. The latter body concerns itself more particularly with the scientific side of the struggle against tuberculosis.

CANADA.

The *Canadian Practitioner and Review* for January, after referring to the progress of the "crusade against tuberculosis in England," goes on to speak of what is being done in Canada as follows:

"We are making some progress in the right direction in Canada, but our municipal bodies are moving somewhat slowly. We have our excellent sanatorium at Gravenhurst, which has been a boon for a limited class of consumptives, but has not thus far been available for those unfortunate victims of tuberculosis who are unable to pay for treatment. The Council of Toronto has been urged by the profession of the city to take certain steps towards the establishment of a sanatorium for our sick poor consumptives, but is slow in responding in a satisfactory manner.

NORTH AMERICA.

The following resolutions respecting tuberculosis were adopted by the thirteenth annual meeting of the Conference of State and Provincial Boards of Health of North America, held at Detroit, 1898:

Whereas it is the unanimous voice of the Conference of State and Provincial Boards of Health for North America that, since tuberculosis, which causes on this continent more deaths than all other contagious diseases together is now recognised by all scientific and medical authorities as both curable and preventable; and

Whereas, since the onset of the disease depends especially upon hereditary weakness and on malnutrition induced by overcrowding, bad ventilation, and over-pressure in schools, social and commercial life; and

Whereas, since the presence in the home of the poor of so many cases of this chronic disease means about certain death to the patient, and probably infection of other members of the family: be it therefore

Resolved: That this Conference does publish and instruct the Secretary to forward copies of these resolutions to the Legislatures, Departments of Education, and municipal authorities of the several States and Provinces represented in the Conference, urging upon them the imperative need of:

First: Having all schools and colleges placed under medical supervision with regard to ventilation, over-crowding, and over-pressure in studies.

Secondly: Having all hotels, boarding houses, and workshops where consumptives may be employed placed under municipal supervision and inspection.

Thirdly: Urging all State Legislatures to devote public funds, and encouraging private philanthropy in the establishment of homes or sanatoria in one or more counties or districts of the several States and Provinces to which patients may be sent early, either at their own or municipal expense, and under proper regulations be encouraged to remain therein until recovery shall have taken place, while at the same time they shall have prevented the continuance of centres of infection in their homes.

PENNSYLVANIA.

From the report of the Pennsylvania Society for the Prevention of Tuberculosis for the year ending April 13th, 1898, it appears that the death-rate from phthisis has in the last fifteen years fallen in Philadelphia from about 14 per cent of all deaths to 10 per cent. The Society, which was organised on April 10th, 1892, and incorporated in 1895, has worked with but one end in view—namely, the education of the community in a knowledge of the true nature of consumption and of the means now considered necessary to control or conquer the disease.

The means by which this end is sought to be obtained are: (1) by the publication and distribution of pamphlets: (2) by constant efforts to induce those in influential positions to use their earnest efforts to prevent the spread of the disease; and (3) by striving to obtain the requisite conditions whereby those early afflicted may be restored to usefulness, or for those far advanced the safeguarding that will prevent the communication of infection to others,

During the past year one new pamphlet has been published (Tract No. 4), How Storekeepers and Manufacturers can Help to Prevent the Spread of Tuberculosis. Five thousand copies of this have been issued, and 20,000 copies of earlier tracts have been reprinted and extensively circulated and copied. The chief effort of the managers, however, has been directed towards the establishment of the greatly-needed municipal hospital for tuberculous patients, and also for a sanatorium in the high regions of the State.

A most desirable location in Luzerne county has been offered the Society for the site of a sanatorium, and strong efforts are being made to obtain State aid to erect the building. The tract consists of several hundred acres, and it has been offered free of expense and encumbrance to the Society, on the simple condition that they shall raise the funds for building and equipping the institution. The matter having been brought to the notice of the Board of State Charities, from the fact that it is intended to make this more especially a refuge for the consumptive poor of our large cities, that body recommended an appropriation of 3,000,000 dollars, provided a like amount could be raised by private subscriptions. The Committee on Appropriations of the Legislature, however, reported the Bill negatively. The movement having once been inaugurated, will certainly not be suffered to drop.

The Society has made a strong effort to limit the evil of expectoration in public places. The Board of Health was requested by this Society to consider the advisability of issuing circulars or public notices, to be properly distributed, warning against the uncleanly, unnecessary, unhealthful, and reprehensible practice of spitting, especially by consumptives, in public places, thoroughfares, and conveyances. The Board of Health published *The Spitting Habit*, and thousands of copies were widely distributed; now every street car in Philadelphia is provided with a sign authorised by the Board of Health forbidding the practice of spitting on the floor.

The State Live Stock Sanitary Board of Pennsylvania has been in operation for about two and a-half years, and much of its work has been in connection with the suppression of tuberculosis of cattle. Since its establishment it has caused the condemnation and destruction of over 3,500 tuberculous cattle. Inspections of tuberculous herds have been made by the State Veterinarian in all parts of Pennsylvania under the supervision of the State Live Stock Sanitary Board. Herds have been found in which the percentage of tuberculosis has been extremely high. In one herd of 56 cattle recently examined, 53 were afflicted with tuberculosis and killed. The average percentage, however, is steadily falling, and while the proportion of infected cattle in infected herds was as high as 30 per cent. in the beginning of the work, it has been reduced to about 10 per cent., showing that the herds in which infection is most extensive are being discovered and disposed of.

Great attention is being paid to sanitary conditions of stables, and farmers are now enabled to purchase cattle that are proved free from tuberculosis by application of tuberculin test as a result of the enforcement of the new law requiring inspection of all dairy cows and cattle for breeding purposes coming into Pennsylvania from other States.

The State Live Stock Sanitary Board is now engaged in some research work carried on for the purpose of discovering more as to the exact manner in which tuberculosis is transmitted from animal to animal, the infectiousness of the breath, saliva, and secretions of tuberculous animals, the infectiousness of the milk at different stages of disease, and the discovery of practical methods for the prevention of the spread of tuberculosis in infected herds.

In the beginning of this work there was some opposition to it by farmers on the ground that it is not necessary, and would cause them financial loss. That they now appreciate its importance and benefits is shown by the fact that the State Veterinarian receives fully three times as many voluntary applications for examinations of herds as can be made with the funds at the disposal of the State Live Stock Sanitary Board.

LITERARY NOTES.

THE *Cambridge Review* of January 19th contains a very appreciative memoir of the late Professor Kanthack by Dr. W. H. Gaskell, who concludes as follows:

> Not since Balfour died has Cambridge science suffered the loss of a professor so young and full of promise; the sense of calamity and personal sorrow for Kanthack's death recalls vividly the earlier loss I so well remember. Like Balfour, he would, if he had lived, have founded a great school; like Balfour he leaves a void in the University it will be hard to fill, and among his friends a feeling of personal loss which will remain as long as life lasts.

Professor Max Verworn's great work, *General Physiology*—an outline of the science of life—has been translated into English by Dr. Frederic S. Lee, Professor of Physiology in Columbia University. Messrs. Macmillan are the publishers. The work has gone through two editions in German, and has been translated into Italian and Russian.

In M. Paul Meurice's drama entitled *Struensee*, now being played at the Comédie Française, the hero is the famous physician who in the last century rose to be the first Minister of Denmark. Johann Friedrich Struensee was the son of a Protestant clergyman of Saxony. He studied medicine, and graduated at Halle in 1756, but had a soul above commonplace practice, and longed for an ampler ether for his genius. He was recommended to Christian the Seventh, King of Denmark, who was suffering from premature decrepitude of mind and body. Struensee won favour in the eyes of the King, and still more in those of the Queen, with whom he openly carried on an intrigue. Struensee became all-powerful in the State, and attempted to reform the constitution and social condition of Denmark according to the light of philosophy as revealed to Voltaire and the Encyclopædists. Being a young man in a hurry, he not unnaturally came to grief. The people rose in wrath against the foreign upstart who sought to reform them against their will. He was arrested and put to death in 1772. Struensee was a not altogether edifying example of the medical politician, but many of his projects of reform seem to have been sound, had he only had the tact and patience required to get them adopted by those for whose benefit they were intended.

In Major Arthur Griffiths's new book, *Mysteries of Police and Crime*, reference is made to the identity of "Jack the Ripper," who was a name of fear in Whitechapel some ten years ago. Major Griffiths, who is in a position to know the facts, says that the police after the last murder had brought their investigations to a point of strongly suspecting several persons all of them known to be homicidal lunatics. As regards three of these, the suspicion was particularly strong. One was a Polish Jew who was afterwards confined in an asylum. The second possible criminal was a Russian doctor, also insane, who had been a convict both in England and Siberia. This man was in the habit of carrying about surgical knives and instruments in his pockets. His antecedents were of the very worst, and at the time of the Whitechapel murders he was in hiding, or, at least, his whereabouts were never exactly known. The third person was of the same type, but the suspicion in his case was stronger, and there was every reason to believe that his own friends entertained grave hopes about him. He also was a doctor in the prime of life, was believed to be insane, or on the borderland of insanity, and he disappeared immediately after the last murder, that in Miller's Court on November 9th, 1888. On the last day of that year, seven weeks later, his body was found floating in the Thames, and was said to have been in the water a month. The theory in this case was that after his last exploit, which was the most fiendish of all, his brain entirely gave way, and he became furiously insane and committed suicide. It is, says Major Griffiths, at least a strong presumption that "Jack the Ripper" died, or was put under restraint after the Miller's Court affair, which ended this series of crimes.

Dr. Reginald Farrar (Stamford, Lincs) has sent us the following "protest against that odious word 'reliable,' which is creeping into journalistic literature":

I quite admit—my worthy friend—the English language pliable,
A very useful tendency, the fact is undeniable;
But no convenience can excuse that odious word "reliable."
I fear the foul abortion shows signs of being viable,
Yet, ere we grant the creature life let's think to what we're liable.
A thrilling "shilling shocker" will be advertised as "cry-able,"
And a gentle maiden's sorrows be versified as "sighable,"
If we weakly grant admittance to that hybrid word "reliable,"
A monster whose existence is quite unjustifiable.
A purchasable picture will be catalogued as "buyable,"
The marriage-knot be registered a ligature "untiable,"
A legitimate experiment be spoken of as "triable";
Historians will praise immortal glory as "undieable,"
And the poultry-monger's pigeons be ticketed as "pieable,"
An oath at which we say "Oh, fie!" be called henceforth "Oh-fiable;"
E'en now the Cockney terms a trip to 'Ampstead 'Eath "enjyable."
Now let us all with one consent consign it to the Diable!
And when we mean "trustworthy" let us never say "reliable."

We have no love for the word which Dr. Farrar anathematises so vigorously: it is superfluous, it is of doubtful legitimacy, and, what we suspect makes it particularly offensive to the ears of grammatically orthodox Britishers, it is of American manufacture. Dr. Farrar, however, in some of his instances, seems to us to have missed the real objection to the word from a puristical point of view: the fact that "rely" cannot stand alone without the preposition "on," which is needed to complete the sense. But against all the objections which philological orthodoxy can bring against "reliable," must be placed the solid fact that it is sanctioned by common use, and, as Horace says, it is

usus
Quem penes arbitrium est et jus et norma loquendi.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1899.

SUBSCRIPTIONS to the Association for 1899 became due on January 1st, 1899. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, JANUARY 28TH, 1899.

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THE GENERAL MEDICAL COUNCIL AND THE SOCIETY OF APOTHECARIES.

THE appeal to the Court of Queen's Bench in the Hunter case was decided on January 24th by a Divisional Court consisting of Mr. Justice Lawrance and Mr. Justice Channell. The case is of interest from at least two points of view. In one of these aspects the case is perfectly clear: in the other it is involved in a fog of uncertainty which we may hope will eventually be cleared away. The aspect of the case which is perfectly clear is the question which the Divisional Court was asked to decide. The aspect which is not clear is how it came about that the General Medical Council instituted a prosecution against a registered medical practitioner in the first instance, and how it subsequently came to prosecute the appeal with the great vigour which was displayed by the counsel who represented it in Court.

With regard to the nature of the proceedings taken in the matter of the late Mr. Hunter, we gather from the exhibits attached to the case stated by the magistrates for the consideration of the Divisional Court,[1] and from the Minutes of the General Medical Council—the latter, it may be said, exceedingly scanty on this head—that what happened is as follows: In September, 1897, a letter was, by direction of the President of the General Medical Council, addressed to Mr. Hunter by the solicitor, stating that it had been reported to the Council that he, being on the *Medical Register* as Lic. Soc. Apoth., London, assumed at times and used the letters "M.D." after his name, thus suggesting that he had a registrable qualification which he did not in reality possess. The solicitor added that to assume a registrable qualification to which the individual was not entitled was an offence under Section XL of the Medical Act, 1858, and concluded by expressing a hope that Mr. Hunter would for the future abstain from the practice of using letters implying a registrable qualification which he did not possess. After some correspondence, it would appear that Mr. Hunter undertook to refrain from the use of the letters "M.D." He addressed a letter to the office of the General Medical Council inquiring whether he could style himself "Physician and Surgeon," but was informed in reply, on the authority of the President, that it did not come within the Council's statutory powers to advise him. All this happened, apparently, in September, 1897. On November 25th, 1897, according to its Minutes, "The Council received *in camerâ* a recommendation from the Penal Committee." From a letter by Mr. George Brown dated May 16th, 1898, and published in the BRITISH MEDICAL JOURNAL on May 21st, 1898, it appears that the recommendation from the Penal Cases Committee referred to in this Minute was that certain persons, amongst whom was Mr. H. K. Hunter, should be prosecuted under Section XL of the Medical Act of 1858. It would appear further from Mr. Brown's letter that the Council were not informed that one of the persons whose name appeared on the list of persons to be prosecuted was a registered medical practitioner; and, lastly, that most of the other members of the Council were likewise in ignorance of this. Mr. Horsley, in his fifth report to the registered practitioners of England and Wales, published in the BRITISH MEDICAL JOURNAL of December 10th, 1898, stated that the Penal Cases Committee, in reporting the case to the Council, described it as an instance of an unregistered person practising under an American M.D. degree, and that, in ordering a summons to be issued, the Council believed that the object was to restrain an unregistered person from practising under cover of an American degree.

What actually happened, however, was that at the petty sessions at Caxton, in Cambridgeshire, on April 6th, 1898, Mr. Hunter was prosecuted, at the instance of the General Medical Council, on two summonses, one for calling himself Physician and another for calling himself Surgeon, contrary to the provisions of Section XL of the Medical Act of 1858. It was argued on behalf of the defendant that since the diploma of the Society of Apothecaries, granted since the Medical Act of 1886 came into force, entitled him to practise medicine, surgery, and midwifery, he had the right to use the style of Physician and Surgeon so long as he did not assume the titles conferred by any other licensing body or university. The magistrates convicted the defendant on the summons for using the title of Physician, and imposed a fine of £5 and costs. Mr. Muir Mackenzie, who appeared for the General Medical Council before the magistrates, said that he did not wish to proceed with the second summons—namely, as to the use of the title of Surgeon. The Society of Apothecaries immediately resolved to appeal. It was this appeal which was heard last Tuesday.

The general contention put forward by Mr. Haldane, Q.C., M.P., who appeared for the Society of Apothecaries, was that the Act of 1858 had gone far to remove the diversity of qualification which had previously existed by establishing a common register, by defining what should admit to it, and by placing the various examinations under the inspection and control of the General Medical Council, but that the Act of 1886 had gone much further by enacting that all examinations conferring registrable qualifications should embrace the three subjects of medicine, surgery, and midwifery. Moreover that the Acts distinctly laid down that a person who had obtained registration was by law entitled to practise all three. He therefore urged that any decisions or expressions of opinion by judges which related to diplomas granted prior to 1886 were no longer fully relevant, and that a person recognised by law as qualified to practise medicine and surgery might with propriety style himself Physician, meaning thereby and implying thereby nothing more than that he was qualified to practise physic. This view was strengthened by the citation of various dictionary definitions, which were supplied at the suggestion of one of the judges.

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[1] The "case" is printed in full in our report of the proceedings before the Divisional Court on p. 233.

The point that at an early period in the history of medical legislation there had been strongly-marked distinctions between physicians and surgeons, and at a slightly later period, when the apothecary (the precursor of the general practitioner) had come into being, between physicians, surgeons, and apothecaries, was urged by Mr. Muir Mackenzie, who appeared for the General Medical Council; but this was hardly in dispute, as Mr. Haldane had already fully admitted it. Mr. Muir Mackenzie urged further that prior to 1886 the Licentiates of the Society of Apothecaries certainly could not properly assume the title of Physician; and that the Act of that year, although it prescribed that they should be examined in medicine, midwifery, and surgery, did not enlarge their privileges in this respect. He contended on this ground that judicial utterances upon this point were still relevant, although they might have reference to licences granted before that date. He laid much stress upon the case of Regina *v.* Baker, and on others which tended generally in the direction of declaring that a medical man, though fully qualified, must not make use of titles which, by implication, pointed to the possession of other qualifications than those which he possessed.

In fact, two questions were put to the Divisional Court for decision, and these were very clearly stated by Mr. Justice Channell in his lucidly expressed judgment. The first question was: "Whether or not the appellant holding the title of Licentiate of the Society of Apothecaries, and being registered as such, was authorised to take and use the name and title of Physician?" The second question was: "Whether on the facts the magistrates were right in finding that the appellant so described himself wilfully and falsely?" The Divisional Court decided in answer to the first question that a Licentiate of the Society of Apothecaries has not the right to make use of the title Physician, and that on this point, therefore, the decision of the magistrates was correct. But on the second point the Court held that Mr. Hunter had not wilfully and falsely made use of the title of Physician, but had supposed himself to be justified in so doing; the magistrates were therefore wrong upon this point, and the Court quashed the conviction, but since the appellant had not succeeded upon the real point which came for decision, the conviction was quashed without costs.

This decision appears to us, as it will, we believe, appear to the vast majority of our readers, to be unfortunate from many points of view. In the first place, as will be seen from the case stated by the magistrates, they based their decision entirely upon the decision in Regina *v.* Baker, whereas Mr. Justice Channell distinctly held that this decision was not binding, and that, in fact, there was no authority binding upon the Divisional Court. In giving judgment, the Judges directed their attention principally to the question what was the meaning of the word "physician." If it meant that the person using it was a person entitled to practise physic, then its use was proper and allowable; but if it meant that he was associated with one or other of those medical bodies which are styled Colleges of Physicians, then its use was improper. They inclined to the view that it had a special and not a general application when used by a medical man, especially as in the enumeration in the Medical Acts of the titles protected it appeared to them to have some relation to the qualifying bodies conferring diplomas. Hence they agreed that a Licentiate of the Society of Apothecaries could not rightly assume the title of Physician (that of Surgeon was not before them in this case) because it implied more than that a man was in the popular acceptance of the term a "doctor."

It must have been apparent both from the wording of Mr. Justice Channell's judgment and from his general attitude and manner during the arguments that he himself arrived at the decision which he finally gave with very considerable hesitation. He indeed concurred in the view that the appellant had "falsely" described himself as a physician, but at the beginning of his judgment he said that he thought that it was a matter of some doubt whether this were so or not.

We are informed that the Society of Apothecaries is advised that there is no appeal from the decision in this particular case; but we understand that the Society will seek some other means of testing the right of its Licentiates to describe themselves both as Physicians and Surgeons. The exact proceedings which it will be necessary to take must be a matter for consideration, so that it may be some time before we are able to announce the course which will be adopted. It is pointed out that it seems to be almost essential that this should be done, as otherwise the logical consequence of the position into which the General Medical Council has drifted would be that it would be under an obligation to prosecute every Licentiate of the Society of Apothecaries who called himself Physician and Surgeon—a result too absurd to contemplate as possible for a moment.

The relations of the General Medical Council to this case are not wholly elucidated by any published documents. Discussion was shelved at the last two sessions of that body upon the ground that the case was still *sub judice*, and that it would therefore be improper to discuss it; but this difficulty is now removed, and we think that it is due to the profession, whom the General Medical Council as a body represent, that it should be made clear.

The question arises, and requires an answer, Who authorised the original proceedings before the magistrate against Mr. Hunter, after he had abandoned the use of the title "M.D.," and who authorised the appearance of the General Medical Council as parties to the appeal? It may be argued that after the magistrates had convicted, it became desirable that the moot question should be settled by the authoritative dictum of a superior court, and there would be some force in this contention. On the other hand, the decision whether these actions should be entered upon was a wide and important matter of general policy, and as such should surely have been submitted to the whole body of the Council, and their opinion taken upon it, before so serious a step. So far as we are able to discover, this was never done.

We cannot think that the success of the original action and the partial success, in so far as the declaration of the impropriety of the use of the term "Physician" goes, justifies this departure from a usual and obvious course of procedure, for it can hardly be doubted that it would have been better for the profession at large had none of these proceedings been taken, for reasons which we have already partly indicated.

It may further be pointed out that this decision brings forward into the utmost prominence the words "wilfully and falsely." It was upon them that the magistrates' conviction was quashed, notwithstanding that the Judges held that there was no right to use the style complained of. Now, it is a fact familiar to everyone who has been concerned in questions of medical defence that these words were a very unfortunate addition to the Act, affording a loophole for escape to very real offenders. It might have been urged, before this appeal was heard, that it was difficult to conceive that a man could take titles, to which he had no right, otherwise than wilfully and falsely, and that the onus of proof that he had not done so practically lay with him. But so long as this decision stands we are likely to hear more than ever of this line of defence, and it will probably become the practice of those who defend accused persons to quote this decision as laying down that it is easy for a person to do so. Hence we regard the whole proceedings, from first to last, as most unfortunate, and we think that the General Medical Council, in the measure of success which it has gained in a question which had much better never have been raised, has acquired a position more calculated to lead to future embarrassment than to benefit the medical profession.

In these days, when our efforts should be directed to the difficult task of the suppression of real quackery, it seems very undesirable to engage in litigation with a practitioner who is unquestionably legally fully qualified, because he uses a style, such as the words "Physician and Surgeon," at least as much capable of being interpreted in a popular and general sense as in any special sense.

When the minds of all medical reformers have long been made up as to the desirability of securing something like uniformity of qualification, even though they may not all go the whole length of advocating a one-portal system, it surely savours of retrogression for the General Medical Council to revive those distinctions which marked the intercollegiate jealousies of former days.

THE IRISH DISPENSARY DOCTOR.

WE publish in another column a report on the grievances of the Irish dispensary doctors, which has been drawn up by a Committee of the Irish Medical Association. It deals with the wrongs which have long been familiar to the profession and the public, and it supports the powerful case which it makes by extracts from the evidence which was published in the BRITISH MEDICAL JOURNAL some years ago. We congratulate the Committee upon the comprehensiveness of its report, and the vigour with which it claims some amelioration of a state of things which is a scandal in a civilised country. The occasion of publishing this document is that the affairs of Ireland have passed, or are about to pass, into the hands of county and district councils under the new Local Government Act. It is an appeal to the humanity and justice of the men who in the future will have the management of affairs. In this sense nothing could be better timed; but we greatly fear that the appeal will fall upon deaf ears. The guardians of the poor and the dispensary committeemen will be the county and district councillors. There will be a change of name but not of sentiment or of action. The same men will refuse pensions to doctors who are physically unable to work, and who cannot give up the few pounds a-year that put a happy barrier between them and a pauper's bed in a workhouse. The same men will give visiting tickets to well-to-do people with a good balance at the bankers, and compel the dispensary doctor to attend them gratuitously. In a word, we fear that the familiar jobbery will be perpetuated, and that the indifference to ordinary fair play will be as general as it is now.

It is impossible, we say, to put much faith in the county or district councils in this matter. What men have done as guardians they will do again when they become councillors. They have learnt by a long experience of the Local Government Board in Ireland that they may do much as they like. Fifty years of protest, appeal, argument, and evidence have failed to stir that body into a true sense of what its position and powers demand of it. It has sat with folded hands, and adopted the policy of letting things slide. Quite lately the new Board has been constituted. There are men upon it who are vigorous enough to act if they have the inclination. The power is in their hands. The Committee properly points out that this body has the control of salaries or remuneration. It not only "sanctions," but it can "direct." We may fairly ask the new Irish Local Government Board if, having read this new "case," it can silently acquiesce in the state of things that at present exists. Does it think that it is for the safety of the poor that a medical officer should have no recognised holiday? that he should do public work at his own expense in relation to conveyance? that it is a prudent thing to allow a man of 80 to carry on the duties of medical officer in an Irish dispensary district? There can be only one answer to these questions. The present Board, we admit, has to overcome the mischief which has followed its red-tape predecessors, most of whom were content to play the part of well-paid officials, without troubling themselves to suggest anything, or to try to remove any wrong. We hope for better things from the new members, and we commend to their very serious attention the whole of this great question, which in many of its aspects is a disgrace to the country and to the authority which is supposed to exercise control.

INELIGIBILITY OF POOR-LAW MEDICAL OFFICERS IN IRELAND TO SERVE AS COUNTY COUNCILLORS.

AN order issued by the Local Government Board for Ireland, published in the *Dublin Gazette* for Friday, January 20th, declares that no paid officer engaged in the administration of the Poor Relief (Ireland) Acts shall be eligible to serve as a county councillor under the Local Government (Ireland) Act. We have not seen the Order, but we presume its prohibition refers to district councils as well as to county councils, seeing that Section XXX of the Act transfers to the "guardians" (that is, the district councillors) the business of the Dispensary Committee. So far as the medical profession is concerned, the Order applies to workhouse medical officers and to dispensary medical officers. These are "paid officers engaged in the administration of the Poor Relief (Ireland) Acts." To two other classes of medical officers the Order does not apply, namely, medical officers of the county infirmaries and medical superintendents of district lunatic asylums. Over these officers the Local Government Board has no jurisdiction. As both these classes of medical officers are brought by the Act under the direct control of the county councils, it is thought to be undesirable that they should be eligible to sit as county councillors. Subsection X of Section LXXXIII of the Act enacts that "a paid officer in the permanent employment of a county council, who is required to devote his whole time to such employment, shall not be eligible to sit in Parliament." It is argued, therefore, that such an officer cannot sit on the county council which appoints him or on any other county council. By Subsection VIII of Section XV every officer of a county infirmary may be appointed and removed by the committee of the county council appointed under this same section. Similarly, by Subsection I of Section LXXX the county council, acting through their committee—appointed under Section IX of the Act—are to appoint for each lunatic asylum a resident medical superintendent and at least one assistant medical officer. It will thus be seen that these officers are under the direct control of the county councils. In any case, to sit on a county council is considered to be incompatible with the due discharge of the duties of either a medical officer of a county infirmary or a resident medical superintendent of a lunatic asylum.

ANTIVACCINATION AND PROVIDENT SOCIETIES.

WE are not at all surprised to see that at least one provident medical club has already taken action to protect itself from the consequences which might ensue to it if any large proportion of its members were to refuse for themselves and their children the protection against small-pox which vaccination alone can afford. At the annual meeting of the Cirencester Medical Club two new rules were adopted: one to the effect that members who were unvaccinated would not be allowed to renew as members beyond March 31st, 1899; the other requiring that any person applying to become a member after that date would be required to satisfy the local secretary that he or she had been vaccinated. In the case of babies the rule requires that the parents shall satisfy the local secretary that the child will be vaccinated in due course, as and when the medical officer may think fit. We are informed that this club contains about 2,000 members—men, women, and children—residing in the town of Cirencester, or within a radius of some ten or twelve miles. We understand further that the meeting at which these rules were adopted, being held at an inconvenient hour to them, was not attended by the medical men connected with the club, and that the new rules were adopted by the lay members of the Committee on their own initiative, and without any persuasion from their medical officers. The whole question of the increased risk to provident clubs and insurance societies which will be brought about by refusal of policy holders to be vaccinated is one which will call for investigation in the near future. It is clear that in the case of local provident clubs in particular an epidemic of small-pox might suddenly impose most serious and indeed crushing calls upon the financial provision made both for sickness allowances and for death payments.

"EXTRA" FEES TO POOR-LAW MEDICAL OFFICERS.

THE boundaries of the city of Bristol were extended for municipal purposes in the year 1897, but for Poor-law purposes the new arrangement did not come into operation till the year 1898. The change has led to some fresh medical appointments, and fresh contracts have been entered into with some of the former medical officers. These changes have given the guardians an opportunity to raise a question in reference to the fees which they will in future pay for midwifery, and the majority of the Board now appear determined, if possible, to evade the requirements of the Consolidated Order of the Local Government Board of July 24th, 1847, and to contract with their medical officers for lower fees for midwifery than are clearly defined in that order. By this Consolidated Order, which was, of course, in full operation when all the members of the Bristol Board accepted office as guardians, all Poor-law district medical officers are to be paid £2 for every special case of midwifery, and not less than 10s. for every ordinary case. These fees, which we believe have hitherto been paid at Bristol, the guardians now look upon as excessive, and on this point they appear determined, if possible, to set the standing regulations of the Local Government Board at defiance. This matter has now been under consideration for some time, and at a recent meeting of the guardians a letter was read from the Local Government Board declining to sanction the fresh terms proposed by the guardians, and insisting on the fees as hitherto paid being again arranged for. This we gather to be the final decision of the higher Board, and as their regulations on this matter have the force of law, we apprehend that any further opposition on the part of the guardians will be useless. It is difficult to understand on what grounds any Board of Guardians can object to pay for midwifery at the authorised rate, as it must be evident that any lower fees would be out of proportion to the services rendered and the responsibility involved. This scale of fees for midwifery, moreover, has now been in general operation in England for pauper cases for over fifty years, and we cannot regard it as being in any way creditable to the city of Bristol that the guardians of its poor should be so anxious to pay at a lower rate for medical attendance than that which is general throughout England and Wales. We are glad to see that the Local Government Board has taken a strong line in this matter, and hope that it will see that justice is done to district medical officers.

LIGATURE OF INTERNAL ILIAC FOR ANEURYSM OF UTERINE ARTERY.

ACCORDING to Ashhurst the internal iliac artery has been ligatured 27 times, with but 8 recoveries. Paul Mundé reports a successful case. The patient was 32, and had not been pregnant for eight years. Two years before operation an abscess developed on the left fornix after operation for lacerated cervix. It was opened, and severe venous hæmorrhage followed; this was stopped by plugging. For over eighteen months all went well, then the patient felt discomfort in the left iliac fossa. Mundé detected in the left fornix a softly, elastic, strongly-pulsating tumour, of about the size of a hen's egg. There was distinct thrill. The patient was placed with the pelvis elevated, and the abdomen opened through a 4-inch incision in the left semilunar line. After some difficulty in isolating the internal iliac artery, especially from the ureter, the operator passed a Deschamps's pedicle needle under the vessel, which was tied with chromicised catgut. When the ligature was tightened pulsation ceased entirely in the aneurysm. The wound in the peritoneal covering of the aneurysm was closed by fine continuous catgut suture and the abdominal incision by buried catgut and deep silkworm-gut sutures. Recovery was speedy. Immediately after the operation there was a faint, apparently transmitted, pulsation in the aneurysm, which, at the end of a week, increased somewhat, but the purr and thrill never returned, and the under portion of the aneurysmal swelling became hard and solid. In order to ensure complete cure, Mundé tried galvanopuncture twice at intervals of three days for half-an-hour at a sitting. An insulated platinum wire was thrust deeply into the centre of the aneurysm and connected with the positive pole, the negative pole being a large wet sponge under the left buttock. The aneurysm became much more hardened and shrunken, but Mundé, who published the case in the *New York Medical Record*, feels confident that the galvanism would have proved utterly inadequate and probably dangerous through the detachment of particles from the thrombus and distant embolism, if the chief arterial supply had not been previously cut off by ligation. Six weeks after the operation the aneurysm had shrunk to one-half its original size; it was hard and painless, and pulsated no more than the normal uterine artery.

THE MEDICAL PROFESSION IN ITALY.

In an article on the Intellectual Proletariat of Italy, published in a recent number of the *Revue des Revues*, Signor Paulucci di Calboli gives a melancholy account of the medical profession in Italy. As everywhere else, men are swarming into the profession, which is overcrowded out of all proportion to the opportunities of earning a respectable livelihood afforded by the country in which their lot is cast. The number of medical practitioners—which in 1892 was 19,000—has now grown to 22,000. They are very irregularly distributed about the country; there is a deficiency in the rural districts, and an enormous oversupply in the large towns. In Milan, for instance, there were last year some 750 medical men; Turin is probably not far behind; while in Rome they number 1,000, and in Naples 1,200. The proportion of doctors to population is 1 in 1,400 for the whole of Italy, while in certain large cities it is 1 in 530! As to the prospects of these practitioners, the daily crust—in a painfully literal sense—is assured to some 9,000 of them by the *condotta* or fixed salary which they receive from municipalities, or by the moneys paid them by the Congregations of Charity and the other "Opere Pie." The life of a *medico condotto*, who is in some respects the analogue of our own Poor-law medical officer, is described by Fusinato as follows:

> Arte piu misera, vita piu rotta,
> Non c'e del medico che va in condotta.

(There is no business more wretched, no life more broken than that of a *medico condotto*)—and those who know say the poet does not exaggerate. According to an estimate made by Professor Luigi Casati, of the municipal doctors two-thirds are obliged to attend all the inhabitants of a commune, whilst the remaining third have only the poor to look after. In the latter case the salary averages £40 to £80 a year, whilst in the former it reaches a relatively magnificent scale, ranging from £80 or £120 to £140 or £160. Signor Paulucci di Calboli, however, regards these figures as optimistic. He quotes an advertisement of the Mayor of Montaldo-Roero, a small commune of 1,500 inhabitants in the district of Alga in Piedmont, to the following effect: "In consequence of the resignation of the former incumbent the *condotto medica* is vacant from January 1st, 1898. Salary as doctor of the poor and officer of health, 750 lire (£30), with suitable lodging." Another modern instance which he cites is that of Colle di Val d'Elsa, in the province of Siena, an important town of Tuscany, where by the new regulations of the Civil Hospital, drawn up by the municipality, the physician, who is director-general of the establishment, receives a salary of £44, with deduction for taxes. In consideration of this splendid salary he has to do all the medical, administrative, financial, and clerical work of the hospital. As regards the 13,000 practitioners not holding municipal appointments, the following figures are given. Excepting a few celebrities and university professors, the majority earn from £80 to £120 in their first years, reaching after a time an average income of £120 to £240, whilst a minority are passing rich on £240 to £480. These figures, which have been furnished to Signor Paulucci di Calboli by several practitioners, are, in his opinion, too favourable. According to official statistics to which he refers, the average income of medical practitioners in Venice is scarcely 1,638 lire (about £65), in Milan, 2,767 (about £140), in Rome, 1,813 (a little less than £75), in Naples, 1,707 (about £70), and in Palermo, 1,297 lire (about £50) a year. Even these scanty earnings tend day by day to diminish, owing to increase of competition, and also owing to the ruin of the classes which give most employment to medical practitioners. When times are bad, illness is a luxury in which only well-to-do people can indulge. The result of the severe struggle for existence among the doctors is, as might be expected, a lowering of the standard of professional dignity and degradation of character. Professor Casati describes the state of things as "a moral and civil disaster which overwhelms the majority of Italian doctors." Hence the frequency of insanity among members of the profession, and their deplorable prominence in the list of suicides. Hence, too, their increasing emigration, which is a new feature in the medical life of Italy, and a symptom which may perhaps be considered favourable as tending to relieve the plethora that is the chief cause of the evils described.

CORONERS AND MEDICAL WITNESSES.

Our attention has been called to a report of an inquest which was published in the *Bradford Observer* a short time ago. The case was one of poisoning by misadventure, the deceased having drunk from a bottle some potassium chromate in mistake for beer. The coroner found fault with the medical man because when called to attend the deceased and finding he was suffering from poison he did not send at once for the police, and the coroner further upbraided the doctor for suggesting at first that the bottle containing the poison should be thrown away, and afterwards for taking charge of it. If the coroner wishes to explain the law to any witness, medical or otherwise, there is a way of doing it courteously, without causing offence or annoyance to the innocent offender. In the present case the coroner appears to have assumed that the medical man was guilty of sins of omission and commission, and, if the newspaper reports are correct, spoke in anything but complimentary terms of his action. We cannot agree with the coroner in his assumption that it is the duty of a medical attendant called in to see a patient suffering from poisoning immediately to summon a police officer or present a report of the case at the nearest police station. In such matters great care and caution have to be exercised by the medical adviser. His first duty will be to his patient with a view to his recovery; at the same time he will take note of all the surroundings, and acquaint himself with the facts of the case as far as they can be ascertained, so that in case of death he may be prepared to give evidence at the coroner's or other courts as circumstances may determine. In all cases where death has occurred from injury or violence the law requires an inquest to be held, and in such cases it is advisable for the medical attendant to withhold the usual certificate of the cause of death until the coroner has been communicated with, though there is nothing illegal in giving one at any time, as long as all the causes and facts are recorded, so that the registration may not be affected, and a burial order given without the sanction of the coroner or an inquest held. It is well that no delay should take place after a death in letting the coroner or his officer or a constable know of the fact, so that the necessary arrangements may be made if an inquest takes place, and a *post-mortem* examination carried out before decomposition is far advanced. But beyond the duty at common law which devolves upon all to make known to the authorities such occurrences, we do not know of any special legal obligation which on the omission of the doctor to do should render him liable to censure or reproach. As a matter of fact, the medical attendant is frequently the informant, as he acts for the friends, who at such times are very often so perturbed that they sometimes fail to carry out a duty which devolves upon them perhaps more than on anybody else. We know of no one who can better be depended on or who is more competent to take charge of any bottle or vessel containing poison which may have caused illness or death than the medical attendant, pending the interference of the police or any other legal authority.

THE LONDON WATER SUPPLY.

THE Royal Commission on the London Water Supply, appointed in May, 1897, have issued a first report. It deals mainly with the question of the necessity for effecting intercommunication between the supplies of various companies. The wider questions as to the future of the London water supply are not dealt with except incidentally. We hope to give a fuller account of the report in an early issue. At a meeting of the Sanitary Institute to be held on Wednesday, February 8th, at 8 P.M., Mr. R. E. Middleton, M.Inst.C.E., will read a paper on the supply of water to London by the Welsh scheme. The chair will be taken by Sir Douglas Dalton, at 8 P.M. Tickets for the admission of visitors can be had on application to the Secretary of the Institute, Margaret Street, W.

THE OPHTHALMIAL JOINT DISEASE OF INFANTS.

AT the meeting of the Royal Medical and Chirurgical Society on January 24th, Mr. R. Clement Lucas again drew attention to a form of joint disease in infants which he originally described in the columns of the BRITISH MEDICAL JOURNAL in 1885. During that year Mr. Lucas published in these pages three cases of ophthalmia neonatorum complicated with joint inflammation, which in some instances was of a most acute kind, and his contention was that the joint inflammation was secondary to, and dependent upon, the purulent ophthalmia, from which the infants were suffering. He argued that just as gonorrhœa in adults is capable of producing sometimes an intense arthritis, and at others a subacute synovitis, so the same virus inoculated during parturition on the conjunctivæ of infants may be productive of analogous joint affections a few weeks after birth. The observation seems to have attracted little attention in this country, where only one additional case appears to have been described, but abroad it was at once recognised as a hitherto undescribed disease of infancy, and Mr. Lucas was able to give references to twenty-three cases, chiefly from foreign sources. The joint complication is undoubtedly a rare one, but were it better recognised as consequent on the ophthalmia many more cases would probably be published. The direct sequence of one on the other has moreover been subjected to bacteriological proof, for the gonococcus of Neisser has been shown to exist both in the secretion of the conjunctiva and in the fluid aspirated from the inflamed joints. The tendency of the disease is towards resolution and complete recovery if the infecting source be actively treated, but occasionally, as with gonorrhœal rheumatism of adults, suppuration takes place, and in one case at least the arthritis began after cure of the ophthalmia. Mr. Lucas raised the question whether, when suppuration occurs, we may not be dealing with the added effects of a second pyogenic microbe, for in two of the published cases in which suppuration took place the gonococcus was found associated in the one with streptococcus and in the other with staphylococcus. Mr. Barker pointed out that it seemed to be the rule that in gonorrhœal synovitis there was a mixed infection. These observations open up a very interesting field for bacteriological inquiry.

ILLEGAL PRACTICE OF MEDICINE BY AN M.D.

IN this country we have lately seen a legally-qualified medical practitioner prosecuted by the General Medical Council for calling himself a physician. But we are still behind France, where they manage these, as other, things much better. There only the other day at Dieppe the edifying spectacle was presented of a Doctor of Medicine being fined for practising his profession illegally, forasmuch as he had, owing to circumstances which were admitted to be in no way discreditable to him, neglected to get the formal sanction of the local prefect as required by the law of 1892. The medical syndicate of Rouen have brought the matter to the notice of the medical members of the Senate and the Chamber of Deputies, urging them to insist on an amendment of the law which would make such proceedings impossible. It is, to say the least, an anomaly that a law which was intended to protect medical men against the dishonest competition of quacks can be used to punish legally qualified practitioners for a technical offence as if they had been guilty of illegal practice. The anomaly is all the more striking since the authorities (in France, it will of course be understood) are as a rule by no means so ready to use their powers against bonesetters and still more mischievous charlatans.

CHRISTIAN SCIENCE AND THE LAW IN AMERICA.

NOT long ago we referred to a case in which an adept of the Christian Science school who had ministered, after the manner of the sect, to a patient suffering from typhoid fever which proved fatal, was convicted of practising medicine without a licence, and to another in which a similar decision by a judge had been appealed against, the Supreme Court of the State (Rhode Island) having the knotty problem propounded to it whether Christian Science is a method of medical practice or a system of religion. The Court has not yet, as far as we are aware, delivered judgment. In the meantime the Court of Common Pleas in Ohio has decided in another case that the rites which the Christian Science healer performed "were religious and not medical, and therefore not within the State medical law, under which she was prosecuted." As an illustration of the "religious" rites practised by these deluded people and their results, the following story told by Dr. Frank S. Billings in a recent issue of the *New York Times* may be cited. We give it in his own words:

> Mrs. —— was the pretty young wife of a clerk. Her mother was a maniacal Christian Scientist. When it came time for Mrs. —— to be confined, the husband was told he might go to business, and the mother (mother-in-law) took the case in hand aided by a Christian Scientist healer. The poor girl began to suffer, and the fool women put a Bible on her abdomen and told her that her pains were all imagination, that the Lord never gave people pain, and so on, *ad nauseam*. The agonies of that poor child must have been terrific, for neighbours heard her screaming and begging for a physician, but these Christian fiends never let up. Finally the pain stopped; no further screaming was heard. The reason was that the child had ruptured the womb and was in the abdominal cavity of the mother. Then there was rushing in mad haste. The husband was sent for, the physician was sent for, but too late; the woman died of hæmorrhage and the child choked to death. Two murders! But were these women prosecuted? Not a bit of it. Public sentiment was entirely on their side, and no official dared to issue a warrant. "It was God's will to take his dear ones that way," said the minister (not a Christian Scientist) at the funeral.

We need not comment on the tragedy here narrated. We may, however, call attention to the fact that the patient begged for a physician. As one was not immediately sent for, this might have been thought sufficient to bring the foolish matrons in attendance within the grasp of the law, on the ground of wilful neglect. Tender as the law is in this country in its treatment of quacks, it appears to be still more tender in America. In view of the case which has been referred to it may be interesting to quote the method of conducting childbirth according to the principles of Christian Science as laid down by Mrs. Eddy in *Science and Health* (page 459): "Teacher and student should also be familiar with the obstetrics taught by this Science. To attend properly the birth of the new child, or the divine idea, you should so detach mortal thought from its material conceptions that the birth will be natural and safe. Though gathering new energies, an idea should injure none of its useful surroundings in the travail of spiritual birth. It should not have within it a single element of error, and should remove properly whatever is offensive. Then would the new idea, conceived and born of Truth and Love, be clad in white garments. Its beginning will be meek, its growth sturdy, and its maturity undecaying. When this new birth takes place, the Christian Science infant is born of the Spirit and can cause the mother no more suffering. Thus it will always be when truth is allowed to fulfil her perfect work." If detaching mortal thought from material conceptions be the secret of safe and natural midwifery, the poor girl to whom allusion has been made should not have died, for the women about her had evidently detached their thoughts from anything so material as a suffering sister and her child. Perhaps, however, Mrs. Eddy would say their treatment was meddlesome, as no mention is made by her of the application of a Bible to the abdomen.

THE TWO JENNERS.

The London correspondent of the New York *Medical News*, in speaking of the late Sir William Jenner, says: "He was very proud of his descent from the same family as the great discoverer of vaccination." Sir William Jenner had many things to be proud of, but the relationship here attributed to him is, we believe, absolutely mythical. It was natural that the identity of name and profession should lead people to assume that the two Jenners were related to each other, and the statement has sometimes been made on public platforms in debates on vaccination by imperfectly informed champions of the right side. The matter has, of course, nothing to do with vaccination, but the assertion rashly made and decisively confuted has been made the occasion of unpleasant remarks on the accuracy of the advocates of vaccination. Sir William Jenner himself never claimed kindred with his immortal namesake; indeed, he appears to have spent a considerable part of his early life in denying any such relationship. A story is told of his meeting the late Dr. Seaton, whose name is so intimately associated with vaccination, in an omnibus—it was long before the beginning of his Court career. The two physicians did not know each other very well at the time, and conversation was somewhat difficult. After an awkward silence, Seaton seeing, as he fancied, a good opening, said, "Are you ——?" When Jenner, anticipating the inevitable question, broke in with a vehement, "No! not the slightest!"

THE INTERNATIONAL ARCHIVES OF LEPROSY.

We think it well to call attention to the new International Journal or *Archives of Leprosy*, which has been projected by Professor Neisser, of Breslau, in response to suggestions made during the late International Congress of Leprosy in Berlin, and which will be produced with the collaboration of Drs. Besnier of Paris, Dehio of Japan, Armauer Hansen of Bergen, and Jonathan Hutchinson of London. As Professor Neisser observes: "Leprosy occupies a very special position among the maladies affecting the human race, yet its study for many reasons is peculiarly difficult. Communications dealing with the disease have hitherto appeared in very various and frequently very inaccessible quarters. Experience of recent years, and the numerous discussions of the subject have shown clearly that the pathology, histology, symptomatology, diagnosis, and therapeutics, as well as the statistics and geographical distribution of leprosy, still require exhaustive study. It can only be by careful and extended consideration that it will be possible to establish the principles which must guide us in contending against the disease, and on which must be based the regulations for its prevention. It is unnecessary to point out how much this task may be lightened by the production of an international journal, in some central place, dealing with this subject. Such an organ must of necessity include not only scientific contributions, but also those dealing with the legislative and administrative aspects of the subject. In addition to original communications, reference to all matters having any bearing on the subjects will be made." It is desired to secure assurances of support and collaboration from all interested in the subject throughout the world. Those who will assist in the work and will become subscribers, are requested to send their names to "Professor Neisser, Breslau (Museumstrasse 11), Germany." Communications will be published in English, French, or German, and summaries appended in one or other of the remaining languages.

THE CHINESE LADIES' FEET.

A correspondent has sent us an extract from a letter received from his brother, a medical missionary in Sechuan, one of the inland provinces of China. The writer first states that since he commenced to treat cases he has had a continual increase, so that on the day he wrote he had seen some fifteen people for various ailments, and expected on the morrow, being market day, to see double as many. "I had," he continues, "a very distinguished patient this afternoon; this is the second time she has come, and we open the large middle doors for her as she rides in in her chair. She is the wife of the Sao-tai of Tien-tsin in Chih-li Province, a man who governs an area probably equal to half-a-dozen English counties. She has necrosis of the first phalanx of the hallux, with a sinus. She has, of course, bound feet, not more than 3 inches long, and her bones are small almost in proportion. Necrosis, ulcer, etc., from this terrible custom are continually coming before me; in fact, another of my patients at the present time is suffering from abscess over the heel, primarily due to the same cause. Under cocaine I extracted two or three fragments of necrosed bone, and hope it may go on improving at the rate it has since I last saw it, for the old lady has gone the round of the best 'surgeons' of this city, whose 'plasters' and 'potions' have not been successful. She brought her fee with her: a fowl, a duck, sixty eggs, two pounds of cakes, and a leg of mutton! Last time she came she brought not quite so much, but since then she has sent over eight stocks of beautiful chrysanthemums. Matters," he adds, "are a little quieter in this province than they were a week or two ago; the rebellion seems to have aborted, and our mission premises are not destroyed yet, and we are not yet driven out." It appears, however, that the writer had been very roughly handled by the mob on the way from Lintoo.

THE CHELSEA PHYSIC GARDEN.

The Chelsea Physic Garden, consisting of 3½ acres of ground lying at the end of Queen's Road where it opens on to the Embankment, was founded by Sir Hans Sloane in 1722. The Charity Commissioners by a new scheme, to which allusion was made in the British Medical Journal (vol. ii, 1898, p. 1833), have endowed it with a yearly sum not exceeding £800 payable out of the income of the City Parochial Foundation, a yearly sum of not less than £150 out of moneys voted by Parliament, and the subsidiary gifts of John Meeres (1726) and Mrs. Ann Rand (1757). A recent issue of the *Gardener's Chronicle* points out that the new scheme provides for instruction and research in systematic botany, so that it is possible that the anatomical side of the science will no longer be overshadowed by vegetable physiology, at any rate so far as these Gardens are concerned. The old traditions of the Gardens will be maintained if it be found possible once more to provide adequate instruction in systematic and morphological botany in their relation to economic uses. Professor Lindley's lectures are still remembered with gratitude by those who had the pleasure of hearing him. They were delivered in the Physic Garden at 8.30 A.M., and were analogous to the "clinical" lectures to which the students were accustomed to listen in the wards of their hospitals. Just as the physician took for the subject of his comments and explanations any cases that might be under observation at the time, so Dr. Lindley availed himself of any plant of interest that might be in bloom in the garden. With the aid of the blackboard, he explained the structure of the plant, showed wherein it differed from its neighbours, pointed out its relationships near and remote, and indicated its use for medical or other purposes. It may be imagined how fresh and interesting these lectures were in contrast to the stereotyped courses given in college lecture rooms, which were for the most part a mere hash-up of the information given in the textbooks. The Gardens were for a long time under the curatorship of the late Mr. Thomas Moore, and of late years set courses of lectures were delivered in them by Mr. J. G. Baker.

THE LONDON MEDICAL GRADUATES' COLLEGE AND POLYCLINIC.

WE are informed that the number of annual subscribers to the Medical Graduates' College and Polyclinic (22, Chenies Street, Gower Street, London, W.C.) is now 320, and that applications for enrolment have been coming in rapidly. The list of life governors, donors, and guarantors is long, and, owing to their generosity, the College starts with every prospect of financial success. Some unavoidable delay has occurred in organising the work, but no pains are being spared to make the arrangements as perfect as possible. To meet the needs of practitioners the teaching will be thoroughly practical, and, to suit the convenience of all, will be continuous throughout the year, so that at any season medical men visiting London will be able by attendance at the College to increase their technical skill and enlarge their professional knowledge. The College can be visited daily, and the Medical Superintendent will afford all information.

ACUTE YELLOW ATROPHY OF THE LIVER.

FOUR years ago Drs. McPhedran and Macallum of Toronto[1] published in the BRITISH MEDICAL JOURNAL a paper on Acute Yellow Atrophy of the Liver, in which while admitting that the disease might be due to microorganisms, they pointed out that the theory remained unproved. They inclined to the view that the poisonous element is of the nature of a chemical compound, probably an abnormal albumen, resulting from deranged and putrefactive processes in the intestine, absorbed by capillary radicles of the portal vein, and carried to the liver, where it first meets the hepatic cells at the periphery of the lobules, bringing about their destruction. Thomson of Odessa,[2] adds to medical literature another case of acute yellow atrophy in a patient aged 35, and over six months advanced in her seventh pregnancy. For about a week she felt sick, then jaundice set in. After a day of restlessness, with much complaint of pain, the usual hebetude was observed, and a macerated fœtus nearly a foot long was delivered spontaneously with but little hæmorrhage. Next day the patient became absolutely comatose and died. The liver was of about half the normal size and very thin; in other respects it exhibited the characteristic features of acute yellow atrophy. Thomson remarks that this case disproves Demelin's theory that the emptying of the uterus is a means of cure, since spontaneous delivery occurred in the above case, yet was followed by speedy death. It must be remembered, however, that when the fœtus was expelled the comatose stage had already begun, the patient being in fact moribund. Thomson concludes that McPhedran and Macallum are correct in their theory. He carefully searched for microorganisms both in the liver and in the uterus, which most probably lets in the poison in cases like his own, but none could be found. There was no evidence of peritonitis, and phosphorus poisoning was out of the question. But Thomson inclines to the belief that the liver was poisoned by a chemical compound, though its nature remains unknown.

INOCULATION AGAINST ENTERIC FEVER IN INDIA.

WHILE Professor A. E. Wright, of the Army Medical School, Netley, one of the members of the Plague Commission, was at Bangalore in the middle of December, the West Riding Regiment was paraded in the barrack square, Brigadier-General Curteis and Colonel Belfield, commanding the regiment, being present. The former announced to the men that Professor Wright during his visit to the country was availing himself of the opportunity of inoculating the British troops against enteric fever, the dread enemy of the soldier. Dr. Wright explained the benefits of his inoculation, and called for those who were willing to undergo the operation, with the result that some 250 of the soldiers came forward.

PROFESSOR WILLIAM OSLER, F.R.S., of the Johns Hopkins University, Baltimore, has accepted an invitation to deliver the Cavendish lecture for 1899, before the West London Medico-Chirurgical Society.

THE annual general meeting of the Neurological Society of London will be held at the rooms of the Medical Society, Chandos Street, on Thursday, February 2nd, at 8.30 P.M., when the President-elect, Dr. W. H. Gaskell, F.R.S., will deliver his inaugural address on The Meaning of the Cranial Nerves.

THE lectures and demonstrations at the Hospital for Consumption and Diseases of the Chest, Brompton, will be resumed on Wednesday, February 1st, when Sir R. Douglas Powell, Bart., will give a lecture on Mitral Stenosis at 4 P.M. Subsequent lectures will be given on succeeding Wednesdays during February and March at the same hour. The lectures are free to all qualified medical practitioners and to students attending the practice of the hospital.

WE have to record with sincere regret, which will be fully shared by all who had the privilege of knowing him, the death of Dr. Joseph Coats, Professor of Pathology in the University of Glasgow, which occurred at the age of 53 on January 24th. Professor Coats had been for some years in delicate health, but it was hoped that two long holidays had so far restored him that he would be able to resume and continue the duties of the new chair of which he was the first occupant.

SIR WILLIAM MACGREGOR, the newly-appointed Governor of Lagos, is an M.D. of the University of Aberdeen, where he graduated as M.B. in 1872. He was appointed Chief Medical Officer of Fiji in 1875. In 1888 he was appointed the first Administrator of British New Guinea, and in 1895 Lieutenant-Governor of the colony. He has received the honorary degrees of LL.D. from Aberdeen and of D.Sc. from Cambridge, as well as the Albert medal of the Royal Humane Society, and the Clarke Gold Medal of the Royal Humane Society of Australasia for saving life at sea.

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[1] Acute Yellow Atrophy of the Liver, BRITISH MEDICAL JOURNAL, vol i, 1894, p. 293

[2] *Centralbl. f. Gynäk.*, No. 45, 1898, p. 1229.

THE RIGHT OF LICENTIATES OF THE SOCIETY OF APOTHECARIES TO DESCRIBE THEMSELVES AS PHYSICIANS.

THE APPEAL IN THE HUNTER CASE.

THE case Hunter *v.* Clare was heard and decided on January 24th in the Queen's Bench Division, before a Divisional Court, consisting of Mr. Justice Lawrance and Mr. Justice Channell.

The real point which the Court was asked to decide in this case was whether a Licentiate of the Apothecaries' Society of London could properly be convicted under Section XL of the Medical Act, 1858, for styling himself "physician." The ostensible appellant was Mr. H. K. Hunter, who had been so convicted on April 6th, 1898, at the instance of the General Medical Council, by the magistrates at the Caxton Petty Sessions, in the County of Cambridge, and the ostensible respondent was one of these magistrates, but, as was stated to the Divisional Court, the real appellants were the Society of Apothecaries of London, and the real respondents the General Medical Council.

Mr. Hunter was registered in the *Medical Register* on November 24th, 1893, as "Lic. Soc. Apoth. Lond., 1893." The following is the text of the case stated by the magistrates upon which the Divisional Court was asked to give its opinion:

CASE STATED BY THE MAGISTRATES, CAXTON PETTY SESSIONS.

This is a Case stated by us the undersigned Three of Her Majesty's Justices of the Peace for the County of Cambridge under the Statute 20 and 21 Vict., Cap. 43, on the application in writing of the Appellant, who was dissatisfied with our determination upon the questions of law which arose before us as hereinafter stated on the 6th day of April, 1898, at Caxton in the said County, the Appellant having duly entered into a Recognisance to prosecute the Appeal.

(1) Upon the hearing of a certain Information and Complaint preferred by the Respondent against the Appellant under Section XL of 21 and 22 Vict., Cap. 90, and Acts amending the same.

"For that he the said Herbert Kingsley Hunter, of Montague House, Gamlingay, in the county of Cambridge, on the 28th day of December, 1897, and on each of the succeeding days up to and including the 23rd day of March, 1898, at Montague House aforesaid and elsewhere in the said county, did and continued wilfully and falsely to pretend to be and take and use the name and title of Physician contrary to the Act 21 and 22 Vict., C. 90, Sec. 40, and Acts amending the same."

We convicted the Appellant of the said offence, and adjudged him to pay a penalty or fine of £5 and £3 3s. for costs. The following facts were proved before us (and admitted by both parties).

(2) That the Appellant is a duly registered medical practitioner, being registered as a L S.A. under the Medical Act, 1886.

(3) That the Appellant did, in the month of December, 1897, attend one William Hawkins, and that on December 28th, 1897, and on March 23rd, 1898, make use of the name and title of Physician by causing to be printed and delivered to the said William Hawkins and to one Elizabeth Shattom, certain billheads bearing the following words:

"To H. Kingsley Hunter, Physician and Surgeon.
for professional attendance, etc."

(4) On the part of the Appellant it was contended:

That being in possession of a Diploma granted by the Society of Apothecaries of London, dated October 19th, 1893, in pursuance of which he was admitted a Licentiate of that Society and registered as such, and which Diploma states that he, the Appellant, possessed the knowledge and skill requisite for the efficient practice of Medicine, Surgery, and Midwifery, and that being so registered, and by virtue of S. 6 of the Medical Act, 1886, he, the Appellant, was—

(*a*) Entitled to take and use the titles of "Physician" and "Surgeon" if he thought fit to do so.

(*b*) That notwithstanding the use of the name or Title of Physician there was nothing to show that the Appellant wilfully and falsely used the same, on the contrary that he did so in good faith; further that he was authorised and justified in so doing in consequence of the Note which was produced and admitted as purporting to be issued by the Society of Apothecaries of London as follows:

"Society of Apothecaries of London,
"Blackfriars, London, E C.

"The L.S.A. (1886) can call himself by any title or titles which he prefers adopt denoting his right to practise Medicine, Surgery, and Midwifery, provided that he does not directly or indirectly assume a title conferred by another Licensing Body or University."

In support of the foregoing contentions the case of Ellis *v.* Kelly, 30 *L J.* 35 was quoted.

(5) On the part of the Respondent it was contended:

That the case was in all respects similar to that of Reg. *v.* Baker (December 3rd, 1891) 8 *Times Law Reports*, 123, 56 J. P. 407 in that case, "S., a licensed and registered Apothecary used on his door after his name, the letters 'M.D.,' also the words 'Physician and Surgeon,' though he was not registered as a physician or surgeon under the Medical Act, held he was rightly convicted under 21 and 22 Vic., C. 90, S. 40, of falsely pretending to be a Physician, Surgeon, and Doctor respectively."

(The foregoing quotation is from *The Justice of the Peace*, June 25th, 1892.)

And in the present case it was argued that the Appellant had no right whatever under his diploma to take and use any other or additional name or title than that of "L.S.A.," and that whenever he did so, and persisted in doing so, he was guilty of the offence charged.

(6) We, however, being of opinion that the present case was similar in all respects to that of Reg. *v.* Baker (already quoted), and that the Appellants had committed an offence under Section XL of 21 and 22 Vic., C. 90, gave our determination against the Appellant in the manner before stated.

(7) The questions of law upon which this case is stated for the opinion of the Court therefore are (*a*) whether or not the Appellant holding the title of "L.S.A." and being registered as such is authorised to take and use the name and title of Physician in the manner the Appellant so used it; (*b*) Whether on the facts herein stated we were right in finding that the Appellant so described himself wilfully and falsely within the meaning of 21 and 22 Vic. C. 90.

The Exhibits marked A, B, C, D, E, F, G, and H are hereunto annexed.

The Exhibits consisted of the correspondence which passed between Mr. Hunter and the Solicitor to the General Medical Council and the Registrar of the General Medical Council.

THE HEARING BEFORE THE DIVISIONAL COURT.

Mr. Haldane, Q.C., M.P., and Mr. Condy appeared for the Society of Apothecaries, and Mr. Muir Mackenzie for the General Medical Council.

The following is an outline of the arguments employed by counsel, but owing to the fact that the arguments lasted for three hours and involved quotations from numerous cases and reports not easily accessible the full transcript is not at present available.

Mr. **HALDANE** commenced by some historical references to the Society of Apothecaries, mentioning their original charter granted by James I, and noticing the fact that by an unrepealed law medical men could not practise without the permission of the Bishop of the Diocese. Passing to the Act which in the year 1815 recognised the right of the apothecaries to prescribe, Mr. Haldane said that the druggist compounded according to the prescription and sold drugs, while the apothecary prescribed and dispensed his own prescription. By the Act of 1886 a Licentiate of the Society of Apothecaries being entitled to practise medicine, surgery, and midwifery had a right to call himself a physician, and the meaning of that word "physician" was that the man represented that he was legally qualified to practise physic, that is, medicine, surgery, and midwifery.

Replying to Mr. Justice Channell, Mr. **HALDANE** said that a man might have been prosecuted before the Act of 1886 for calling himself a surgeon if he was only qualified as a physician, upon which Mr. Justice **CHANNELL** remarked that before that time the titles were distinguishable and distinct.

Mr. **HALDANE** explained that what he suggested was, that these titles were not now distinct as particular properties of particular licensing bodies, and that the Act was not intended to give any licensing body the monopoly of the word physician.

Mr. Justice **CHANNELL** pointed out that the question was whether the word "physician" was used in a technical sense implying qualification as a member of a particular body.

Mr. **HALDANE**, continuing, quoted decisions where persons wrongfully holding themselves out as physicians and surgeons were held to be infringing the Apothecaries' Act, thereby implying recognition of the Society's rights in the employment of the word "physician." He contended that no body or society could rob the Queen's language of the word "physician."

Mr. **MUIR MACKENZIE** prefaced his remarks by saying that he proposed to give assistance to the Court on certain points, and mainly as to the question whether a Licentiate of the Society of Apothecaries was justified in calling himself a "physician." He referred to the time when the apothecaries were a subordinate body to the physicians; he quoted Acts of Henry VIII in regard to the College of Physicians, and drew attention to the fact that in the last century persons practising as physicians without the licence of the College of Physicians were prosecuted. He drew a fine distinction between the practice of physic and the practice of medicine, and contended that the former embraced the practice of surgery. Mr. Mackenzie contended further that a person possessed of the licence of the Society of Apothecaries had the right to practise medicine, surgery, and midwifery, but was not entitled to call himself a physician. He quoted the case of Regina *v.* Baker to show that after the Act of 1858 a practitioner registered as a Licentiate of the Society of Apothecaries was convicted for calling himself a physician and surgeon, but admitted that he had become a licentiate before the Act of 1886 was passed. That being so, Mr. Mackenzie proceeded to further argue that the Act of 1886 contained nothing which conferred the right on a Licentiate of the Society of Apothecaries to style himself a physician, without stating however who had the right to the term physician.

The following is a verbatim report of the judgments delivered by Mr. Justice Lawrance and Mr. Justice Channell.

Mr. **JUSTICE LAWRANCE**: The question that we are called upon to decide in this case seems to me to be this: Whether a person who has a certificate from the Society of Apothecaries (by which certificate I understand at the present time he is entitled to practise both medicine and surgery as well as to act as an apothecary) is entitled to describe himself as a physician. That seems to me to be the whole question which we are called upon to decide—namely, whether in describing himself as a physician he was contravening Section XL of the Act of 1858. In my judgment, if the person was doing that falsely and wilfully the justices would be quite right in convicting him. That is the short answer to the question. I need not go through all the cases to which our attention has been called, or the statutes. As far as I understand the matter, up to 1858, or rather later, up to the year 1886, which I think was the other statute, the only certificate granted by the Society of Apothecaries was a certificate to practise as an apothecary, and after that the three bodies into which the medical profession was divided, namely, physicians, surgeons, and apothecaries, seem to have come to the conclusion, for obvious reasons—I should think for the public good—that nobody could have any certificate from any one of them who had not passed in surgery and medicine, and such an examination, if there is a separate examination, which may be required by the Society of Apothecaries.

Those were the matters in which the then defendant, the appellant in this case, had passed, and he then continued to describe himself first, I see, as "M.D." I have read the correspondence, which I suppose is part of the case, though it is not referred to, and I thought it well to refer to it for another reason that I will mention directly, and what I gather from the correspondence is there was something of this kind took place: that he had a diploma from Philadelphia or somewhere, and he first started by describing himself as "M.D." That was pointed out to him by some authority—I need not refer to it at greater length—as being wrong. Then he modified that until he came at last to call himself a physician. The question is, In what way was the word "physician" used? Was it a mere general expression signifying the man was a medical man, a doctor, or was there a more definite meaning to be attached to it, namely, that he was a physician, which would import to most people that he was a Doctor of Medicine and held a diploma entitling him to practise as such? That I think was the real meaning of the word "physician" as used by him, and I have no doubt whatever that would be the meaning conveyed to the mind of anybody who saw on a brass plate: "So-and-So, Physician." It would to my mind, at all events, and I should think it would to the ordinary mind, import that he was a doctor of medicine and a physician—something which he really was not. Therefore I think he was contravening Section XL of the statute of 1858, and that his conviction was right upon that point.

Now, when we come to the other point (whether it was taken below or not I do not know, but I suppose it was taken, though it was not argued)—upon that part of the case, whether he was doing it wilfully and falsely, I come to a conclusion after looking at the case of Ellis *v.* Kelly, in which Baron Bramwell gave judgment, and held he was not acting falsely and wilfully, and the case of Andrews *v.* Styrap, in which Baron Martin says: "There was ample evidence that this appellant wilfully (for he did it on purpose) and falsely (because he pretended thereby to be on an equal footing with any regularly bred and registered physician or M.D. in England) took, assumed, and used the title of 'M.D.'" Of course that was a very much stronger case than this, because there was a man there pretending to be a Doctor of Medicine in England, whereas I think in fact he held some foreign diploma of America which gave him no such power to describe himself as an M.D. in England. In this case, and that is the reason I read the correspondence, I think the fair result of that correspondence is that the appellant determined to try the right, as it were. That is the position in which he put himself, "You have convinced me I cannot call myself 'M.D.'" I do not mean to say he says that, but I am giving now the fair result of the correspondence. "I modify that; but having a certificate entitling me to practise both medicine and surgery, as well as whatever the certificate of the Apothecaries' Society may go to"—that I do not know at the present moment—"I have a right to say I am a doctor in the ordinary sense of the word—that is to say, I am a physician, and I can practise medicine." I have already given my reasons for thinking he was wrong in that; but I think he was not doing it wilfully and falsely, but doing it in the assertion of a right for which I think there was no legal ratification at all events.

I apprehend the object of those who have started these proceedings will be met by the judgment given upon the other part of the case. I think he was wrong there, and I think the conviction ought to be quashed upon that ground. I think the magistrates were right in their law with regard to the first part of the case, but I think there was no evidence, which there must be before the conviction could be affirmed, that he was doing what he did wilfully and falsely. The result is that the conviction is quashed, and the appellant not having succeeded upon the real point which came here for decision, the fair and proper thing to do would be that the conviction should be quashed without costs.

Mr. Justice **CHANNELL**: I am, on the whole, of the same opinion. To begin with, I think, although I think it is matter of some doubt, that this appellant falsely described himself as a physician. Now that is the point upon which our decision is mainly asked in this case, as I understand. It has been stated by counsel on both sides, although they appear on the one hand for the appellant and on the other hand for the respondent, that they really are instructed on behalf of two societies, and that they desire to have the opinion of the Court as to whether it is a true description now for a Licentiate of the Society of Apothecaries to describe himself as a physician. It seems to me that depends entirely upon what is the sense in which the word "physician" is used in Section XL of the Act of 1858. If "physician" there means simply a person who is duly qualified in law to practise in physic, then it seems to me that this gentleman is a physician within that meaning of the word, because although it was not so at one time, he is now, by being a Licentiate of the Society of Apothecaries, entitled to practise medicine and surgery, and if the word "physician" in Section XL which I have referred to is used in a popular sense, I think one would be bound to say that he is entitled to practise in physic in a popular sense, at any rate; but even if there is any other sense—I am not quite sure I fully followed Mr. Muir Mackenzie's argument upon that—but even if there is in any sense a distinction between "physic" and "medicine," I do not think there is any such distinction in the popular sense; consequently, if "a physician" in Section XL meant merely a general word describing—I do not know exactly how to express it, because if I say a "medical practitioner" I am not quite sure that will do because that again has a sort of technical sense, but if it means simply a person who is legally entitled to act as doctor using the word "doctor" again in the popular sense and not in the technical sense of doctor of medicine—if it means this, I think the gentleman by the qualification he has got would be entitled to call himself a physician. Having regard to the fact that prior to the passing of this Act "physician" was commonly used at any rate in the sense of applying to what was, I may call it without disrespect to the others, the highest grade of medical practitioners, I think it was so used in this Act; and I think if you look through the Act generally you will find confirmation of that. There is some confirmation of it in the fact that these words "physician, doctor, licentiate in medicine," and so on, most of them have application to the specific bodies that are entitled to give qualifications. It seems to me that "physician" here had got somewhat of a technical sense, and that it, in point of fact, was a word used as importing a particular grade of medical practitioner. In that special sense I do not think it is correct to say that the licentiate of the Society of Apothecaries is in fact a physician. He certainly was not before the Act of 1886, or rather before the licence of 1886, because "physician" in that sense, as Mr. Muir Mackenzie has shown, included practice not only in medicine but in surgery, and before 1886 the licentiateship of the Society of Apothecaries did not give that. Consequently, before 1886, it would not be a correct expression, and as that is the case I think we have got no binding authority upon us here upon this question. In the case of Regina *v.* Baker I was at one time inclined to think when we were told that there were three summonses there, and one was for calling himself a physician, that that was an authority binding upon us to decide this point in the way we are doing, but I do not think so now for two reasons. The reasons are, first of all, that was a motion for a *certiorari*, and any jurisdiction to consider the matter at all on the part of the magistrates would have prevented the *certiorari* being granted; and, secondly, because that gentleman's qualification being before 1886 did not authorise him to practise in surgery, and therefore it did not authorise him to be a physician in the sense in which Mr. Muir Mackenzie has pointed out, namely, that it included practice in surgery. The result is we have got no authority binding upon us upon this point, and, having considered it, on the whole I came to the conclusion, though not altogether without doubt, that "physician" in Section XL is used in a technical sense, in which technical sense it was not true this gentleman was a physician.

The next question is, Although he falsely described himself so, did he wilfully and falsely describe himself so? Now, on this point, as I read it, the case of Ellis *v.* Kelly seems to be a distinct authority. We have the case quoted to us, and it is said that Baron Bramwell afterwards recanted to a certain extent what he had said in that case of Ellis *v.* Kelly. It does not quite appear how much of his opinion in Ellis *v.* Kelly he thought was wrong, and, whatever he thought was wrong, there remains the decision; and, so far as I understand the decision, it was this: that in that case the man was not really an M.D. in the sense in which the Court understood Section XL to mean, but that he had reasonable grounds for thinking that he was, and, having reasonable grounds for thinking that he was, the Court said he cannot be said to have wilfully and falsely described himself as such. If that is the meaning of that case, it governs the present one. The difference between Ellis *v.* Kelly and Andrews *v.* Styrap appears to be this: that in Ellis *v.* Kelly the qualification that the gentleman had was a foreign qualification; but it was, as I may say, a genuine one, a real qualification. I suppose he had been examined and had a real foreign qualification. Whereas in Andrews *v.* Styrap it was what one might call a bogus qualification—that is to say, he had not been examined in any way, but had written out and got that qualification by correspondence merely for the purpose of representing himself here as an M.D. That is what Baron Martin meant when he said "he did it on purpose." He got a qualification on purpose. There being that difference between the two cases, I do not think Ellis *v.* Kelly is overruled, and it is a binding decision, and goes to the effect of saying, as we do say in this case: Although we think this gentleman incorrectly described himself as a physician, yet he did not wilfully and falsely describe himself as a physician by reason of the interpretation of the words in Ellis *v.* Kelly.

On those grounds I agree the conviction ought to be quashed, but that the decision upon the point mainly argued and upon the point which we are requested specially to give our opinion upon, ought to be for the respondent and not for the appellant. That being so it seems to me to be a case in which it is right—it is not very commonly right in my opinion —to quash the conviction, but to quash it without costs.

In fact I see there are two questions put to us—A. and B.—in the case. The first question (A.) is "Whether or not the appellant holding a title of Licentiate of the Society of Apothecaries, and being registered as such, is authorised to take and use the name and title of physician?" As to that we say that he was not, but as to the next question (B.), "Whether on the facts herein stated we" (the magistrates) "were right in finding that the appellant so described himself wilfully and falsely?" on that point we say they were wrong, and we quash the conviction on the ground that he had here some colour or title to use the description which he did use, especially having regard to the directions issued by the Society of Apothecaries—that he had such a reason to think he might so describe himself that we cannot say he did it wilfully or falsely.

We are informed that the Society of Apothecaries are advised that there is no appeal from the decision in this case, but that it is the intention of the Society to further raise the question of the right of its Licentiates to use the style of "physician and surgeon" in another proceeding.

THE GRIEVANCES OF THE IRISH POOR-LAW MEDICAL SERVICE.

THE Irish Medical Association has issued a report bearing this title setting out the nature of the grievances under which medical officers of the Irish Poor-law Service now labour, and showing that these grievances affect not merely the doctors, but closely concern the care of the sick poor, and are therefore of supreme importance to the Irish people.

The report, which is dated January 20th, from the Royal College of Surgeons in Ireland deals with the subject under the following heads:

THE ABUSE OF TICKETS.

Tickets are issued generally without inquiry, often without necessity, and always without responsibility. Practically they are given to every applicant. Poor-law guardians and other members of Dispensary Committees have issued tickets for attendance on their own families. Thriving shopkeepers, farmers of a hundred acres of land, persons with many hundreds of pounds on deposit in bank, earners of income up to £3 a week, well-to-do pensioners, and such-like people get visiting tickets without question and present them without shame.

[The report then quotes a series of instances of abuse authenticated and published in our columns by Sir William Thomson some years ago.]

Among the recipients of dispensary relief, the report continues, there is a large class able to pay moderate fees in proportion to their means, who are not only permitted, but are even encouraged, to pauperise themselves in the matter of medical attendance. They may be counted probably by the hundred thousand. This, surely, is a scandal of national importance. Judge Kane during the past year has denounced it from the bench, and condemned the practice of the Irish dispensary system as a great agent in the demoralisation of the people. While demoralising the people it does a double wrong to the doctor, by adding to the heavy burden of his duty and taking from the slender sources of his income.

The Local Government Board should be able to provide a remedy that would prevent this imposture, and at the same time protect the rights of the sick poor.

Again, tickets are sometimes obtained for purposes outside the scope of the Medical Charities Act. Mothers frequently thus relieve themselves of the duty of bringing their children for inspection after vaccination. Tickets are issued to obtain School Board or other certificates. Agents for small insurances cause them to be used for the protection of their companies. An illustration may be given of a doctor being disturbed on a Sunday night by an Urgent Ticket. The child was dead before the ticket was sent for. It had been insured, and it was thought the money would be obtained easier by a medical certificate.

Further, visiting tickets are issued without necessity at irregular and unreasonable hours. Very often the medical officer is brought back in the evening over a journey of perhaps many miles which he had travelled during the day, not because of the requirements of the patient but because of the neglect or selfishness of his friends. By issuing the tickets only at timely hours—except in case of necessity—the sick would be attended more promptly and satisfactorily and the doctor would be relieved of much useless and avoidable drudgery. Proper regulations, of course, are necessary, but regulations alone will fail, as they have failed in the past. For instance, the following has been a regulation of the Local Government Board for more than twenty years:

> 3. Persons empowered to issue tickets for medical relief under the Medical Charities Act cannot delegate that power to others.

This regulation has been practically ignored. How much it has failed is shown by an example of its actual working in a dispensary district, taken without selection of time or place: During the twelve months ending December 31st, 1898, the number of tickets registered was 1,434; the number of tickets found on examination to have been issued by the members of the Committee themselves was 58.

The Local Government Act, in abolishing Dispensary Committees, transfers "to the guardians the business of every Committee of Management." If the word "business" include the individual right to issue tickets at present conferred by statute on each member of the Dispensary Committee, then each guardian in future will have the right to issue visiting tickets, not only to any person in any part of his own district, but to any person in any part of any dispensary district within the whole union, "at his own discretion."

For many years the medical officers have complained bitterly of the gross abuses caused not only by giving the power of issuing tickets to an unusually large number of persons who are practically without responsibility, but also by the issuing of tickets to applicants who did not reside in the issuer's electoral division. The opportunities for abuses in both these ways will be enormously increased if it be held that through some oversight each guardian is now authorised to issue visiting tickets in every dispensary district of the union. This new danger of abuse would be so serious an injustice that the Association would feel obliged to appeal to the Government to procure its removal. Pending such correction by the Legislature, Boards of Guardians could voluntarily select a few of their members for the exercise of this important power in each dispensary district.

Wardens, it is hoped, will now be abolished. They were never necessary.

The appointment of proper persons for the issuing of tickets is the first and most essential step towards reform. Past experience has produced in the service an intense and unanimous feeling against selecting those who are dependent on public favour for their means of living. The issuers of tickets should be required to realise their responsibilities, and the privilege conferred should be withdrawn wherever it is abused.

Recommendations.

(*a*) Tickets should be issued chiefly by the relieving officer, supplemented for emergency by one or two guardians specially authorised. Where the relieving officer is not available, the guardians should appoint a small number of their body for that purpose under sanction of the Local Government Board, who should determine how many each district required. Visiting tickets should not be issued after certain hours without necessity. The person who has power to issue a ticket should have power to cancel it on cause shown.

(*b*) It should be indicated on the ticket and intimated by circular to Boards of Guardians that the person so appointed will be resonsible not to issue a ticket to anyone able to pay for medical attendance.

(*c*) In the case of persons of small means, who are not entitled to relief under the Medical Charities Act, the medical officer may accept fees proportionate to the circumstances of the patient.

Travelling Expenses.

The salary paid to a dispensary doctor in Ireland for the treatment of the sick poor averages £108 a year. There are, it is true, some small extras for registration, vaccination, and sanitation. The duties of registration are both uncongenial and ill paid. The fees for vaccination are small at best, and are dearly earned. An instance is given where the vaccination fees are actually consumed in car hire. The dispensary doctor has himself to pay the travelling expenses which he must necessarily incur in discharging his public duty. This anomaly is the more grievous and unjust because these expenses, which ought to be a public charge, are paid for out of a salary that does not afford even the necessaries of life. That in fixing the salaries of dispensary doctors provision has not been made for the cost of travelling may be shown in three ways:

First, the salary itself is manifestly insufficient payment for duties which are so laborious and responsible.

Secondly, Poor-law medical officers who have no outlay for travelling receive larger salaries than those who have heavy outlay, though the duties may not be more but are often much less.

Thirdly, dispensary doctors are often paid no more in districts of enormous area than in districts of small area, even in the same union.

Nominally, the dispensary doctor is paid the wages of an artisan, but in reality he barely receives the wages of a labourer. He is the only public officer who must himself pay the travelling expenses he has to incur in the discharge of his public duty. The civil servant, when his duties require it, is paid travelling allowance. The inspectors under Government are paid their mileage in addition to their salary. The District Inspector of Police receives £95 a year for a horse—a sum equal to the year's salary of the dispensary doctor. But in none of these cases are the public interests so seriously involved as in the treatment of the poor. Here the question concerns very closely the sufferings and lives of human beings. No doubt it means hardship and injustice to the doctor, but to the poor it may mean injustice and cruelty still more grievous. It exposes patients who live at a distance from the doctor's residence to the serious danger of being visited too seldom. After the first time the frequency of attendance is largely in the doctor's discretion. The physical labour of a weary drive, and the time it occupies, are temptations enough to try the truest, but when besides these, the doctor has to pay a pecuniary penalty for each journey, which very often he is ill able to afford, the temptation he is called on to resist is too great for human nature to be asked to bear.

A premium is put on shirking duty, and the conscientious officer is penalised for his zeal.

Recommendation.

It should be strongly urged on the Local Government Board that the want of allowance for the cost of travelling on dispensary duty in rural districts is a grievous injustice to the sick poor as well as to the doctor.

That the Local Government Board has ample power for this purpose is shown by the following extracts:

14 and 15 Vict., Cap. 68. Extract Sec. 8.—"The Committee of Management shall appoint one or more medical officers, with such salaries as the guardians, subject to the approval of the said Commissioners, shall determine; and the said Commissioners may, and they are hereby empowered when they may see occasion from time to time, to regulate the amount of salaries or allowances payable to such officers respectively."

Sec. 12.—"The said Commissioners shall and may, and they are hereby directed, to frame the general rules and regulations for the guidance and control of the guardians and the several officers, and shall be empowered to alter or revoke such rules and regulations, and make new rules and regulations from time to time as they may think fit."

Article 35 of General Regulations of Local Government Board: Extract.—"The Board of Guardians shall pay to the several officers such salaries or remuneration as the Local Government Board may from time to time direct or approve."

Annual Vacation.

The dispensary doctor must be prepared for official duty every hour of the day and of the night, on Sundays as on week days, on holidays as on other days, all the year round. There is no parallel for such a constant strain of continuous duty. The army medical officer has two months' leave of absence in the year. So, too, have the district inspector of police and the stipendiary magistrate.

The Civil servant, whose work is mostly clerical, and is done in the shelter and comfort of his office, gets six weeks' holiday in the year, and the public and Bank Holidays as well. He gets every Sunday. His duty is confined to seven hours in the day and a short day on Saturdays. His nights are secure. These are enjoyments denied to the dispensary doctor.

Even the common labourer has the Sunday's rest, the evenings after his work, and though he "sweat all the day in the sun, he may sleep all night in elysium."

When the doctor is wearied, as he must be, in mind and body, his work is either ill done or not done. The public interests seriously suffer, and he himself becomes an easier victim to disease. A month's change would be only the equivalent of alternate Sundays, would not be more rest than Nature needs, and but a fraction of that which all men else by right enjoy

Recommendation.

The Local Government Board should exercise their power under Sections VIII and XII of 14 and 15 Vict. cap. 68, to secure for all Poor-law medical officers a fixed annual holiday, with paid substitute, as an absolute necessity for the efficient performance of their duty.

SUPERANNUATION.

Officials in the public service are obliged to retire from active duty at the age of 65 years.

The State has provided medical attendance for the poor because the poor are not able to provide it for themselves. The highest obligations of humanity, not to speak of Christianity, and the lowest motives of self-interest, alike compel this policy. But its beneficence is not realised if its efficiency be not secured. Men worn out by work and overtaken by age or infirmity are not fit for duties that are so exacting and exhausting as those of an Irish dispensary district. The public require protection against the injury and danger of such a scandal, and compulsory retirement of Poor-law medical officers at a proper age should be provided for by legislation without delay.

Pensions, it is true, are sometimes granted, but very often they are refused where they are most required, or else they are delayed till death is at the doctor's door. The cases published by Sir William Thomson are pitiful and painful to read. They tell of men 70 or 80, or even 90 years of age, staggering under the weight of years and struggling with a duty far beyond their powers. They could not resign, for to some it would mean the poorhouse as a refuge, with the prospect of dying on a pauper's bed and being buried in a pauper's grave; to others it would mean the pinch of poverty; to the rest a more or less serious reduction of their means of maintenance; to all a denial of what had been hardly earned and was therefore justly due.

So much for the cruelty to the doctors. The cruelty to the poor is multiplied by their number a thousand times. It may never be known what sufferings have been unrelieved or what lives have been sacrificed by compelling or permitting doctors to work beyond their time. Now and again something may transpire to shock the public conscience, like the inquest in a midland county on a poor girl who was poisoned by laudanum through the defective sight of an aged doctor, who pleaded that for years he had desired to resign.

When a medical officer who has passed the proper age for retirement is permitted to remain in charge of a dispensary district, he may perform the duty when the work is light and the weather fair, but he will be likely to fail when his services are most required. Disabled by rheumatism or some of the physical failings which age develops, he cannot go out into the darkness and storm of a winter's night, over many miles of nearly impassable road, to attend some poor patient, it may be a woman in labour and in danger, urgently wanting relief.

Recommendation.

When through infirmity or age the doctor is no longer equal to the efficient performance of his duty he should be enabled to retire, so that the sick poor should not be deprived of efficient medical attendance. A short Bill, therefore, should be prepared for the coming session, entitling him "when he resigns, or ceases to hold office, for some cause other than misconduct, to receive a superannuation allowance on the scale and according to the Acts and rules relating to Her Majesty's Civil Service."

MODE ON APPOINTMENT AND WANT OF PROMOTION.

The system of appointing medical officers in the Poor-law Service is very bad and urgently needs reform. It fails to secure for the sick poor the services of the best candidates and prevents promotion of deserving officers. At present the dispensary doctor has but little prospect of advancement. As a rule he remains in the first district he enters. Every year increases his difficulty of leaving it. He has no stimulus to official energy. His material interests lie largely outside his official duty. It makes little difference to his prospects whether the medical inspection of his district or the reports and records of his official work are creditable or not. Meritorious service is not stimulated or rewarded. There is no progression in his salary and little chance of preferment from his district.

The new Boards of Guardians can easily remove these defects, and make the public their debtors if they provide a proper means of classifying candidates according to professional worth and meritorious service, and if they be guided by this in making their appointments.

THE REMEDY.

The times seems ripe for the remedy. Public opinion favours it and the press of all parties advocate it. A new page is about to be opened in the history of Irish Poor-law administration. New Boards of Guardians are about to be elected on the broad franchise of the people. The central authority has just been renewed and reinforced. New duties must soon be prescribed for the new Boards, and new rules be issued. The old order must change and give place to the new. The change will make for efficiency, and will work with true economy if the order be based on justice and be tempered by humanity.

THE LIVERPOOL SCHOOL FOR THE STUDY OF TROPICAL DISEASES.

FINANCIAL ARRANGEMENTS.

FOLLOWING close upon Mr. Chamberlain's letter last November, pointing out the necessity of providing facilities for the study of tropical diseases, an influential and representative Committee was formed in Liverpool, under the chairmanship of Mr. A. L. Jones, senior partner in the firm of Elder, Dempster, and Co., which carries on the bulk of the African shipping business. Mr. Jones, as was announced in our Liverpool correspondence of December 3rd, has undertaken to provide an annual grant of £350 towards the maintenance of a school of tropical medicine, and his example has been followed by many other leading representatives of the commerce of the port, with the result that promises of support to the extent of £900 a year have already been obtained.

THE ARRANGEMENTS AT THE SOUTHERN HOSPITAL.

The school, for which preparations are now being rapidly pushed forward, will be in connection with the Royal Southern Hospital and University College. The Royal Southern Hospital, owing to its proximity to the Docks, receives annually large numbers of patients suffering from malaria and other tropical affections. Not long ago the Government subsidised a number of beds in the hospital for the use of soldiers invalided home from the Ashanti war. Pending the erection of the new block, which will be commenced as soon as possible, a large well-ventilated and well-lighted ward has been set apart exclusively for the reception of patients who are the subjects of tropical diseases. Adjoining the ward there is a capacious ward laboratory, which it is proposed to fit up for the immediate examination of blood, and of the urine, fæces, and other excreta; and to furnish with all the appliances adapted for scientific clinical research. There are also a small isolation ward, a ward kitchen, and a sisters' room in close proximity.

THE ARRANGEMENTS AT THE THOMPSON-YATES LABORATORIES.

The Thompson-Yates Laboratories of Pathology and Physiology, opened by Lord Lister last October, are among the most capacious and best equipped of existing laboratories, and are within easy reach of the hospital. The pathological department contains a large practical class room, capable of accommodating 60 workers. In this room each student has ample bench and locker accommodation, and his own separate electric light, gas, and water supply. The room is fitted with two powerful electric lantern and microscope projection lamps, and there is a collection of lantern slides illustrating tropical diseases, in great part presented by Dr. Patrick Manson. Opening out of this room is the Museum of Pathology, containing some 3,000 specimens, including numerous examples of tropical diseases such as bilharzia and malaria. It is in contemplation to enlarge the museum in order to have a special department in it for specimens of this kind.

There is a large separate bacteriological laboratory fitted with every suitable appliance, an incubator room, a centrifuge and bacterial mill room, a refrigerator room, a laboratory for chemical pathology and photographic rooms. There are thus already at hand ample facilities for the class and research work which are requisite at the present day.

STAFF OF THE SCHOOL.

There will be a special Lectureship on Tropical Diseases, and it is hoped that the services of a physician who has gained a mature experience in the treatment of tropical diseases will be secured for this office. His lectures will be illustrated by lantern slides and diagrams and by references to the cases in the special hospital ward.

There will be a Demonstrator of Tropical Pathology, whose time will be wholly devoted to tropical pathology, and who will teach both in the Thompson-Yates Laboratory and in the ward laboratory. The staff of the school will comprise also the Professor of Pathology in University College and the Physicians and Surgeons of the Southern Hospital.

PROVISION FOR STUDENTS.

Not only will research be conducted in the ward and in the laboratories, but it is proposed to grant students facilities for studying tropical diseases in their native haunts by organising expeditions to the tropics. Many former Liverpool students are now working in Africa and other tropical countries. Dr. Christophers, late assistant in the pathological laboratory, has been appointed recently by the Royal Commission to undertake the study of malaria in Africa; Dr. Chalmers is in charge of the Government Hospital at Accra, and Dr. Bentley holds a similar position in Southern India. It will materially help these and other gentlemen in their work to have a centre in Liverpool with which they can readily communicate. As many of those who will join the school will probably come from a distance, accommodation will be provided in residential chambers within easy reach of the college and hospital.

THE SCOPE OF THE SCHOOL.

The formation of schools, both in Liverpool and in London, devoted to the study of tropical diseases, cannot fail to give a fresh impetus to the investigation of this important department of medicine. Medical men who are about to proceed to tropical colonies and dependencies, or to take charge of ships, will be able in future to go through a complete course of instruction in the diagnosis and treatment of these disorders. In the wards they will make themselves acquainted with their clinical features and the methods of treatment; in the laboratories they will learn to carry out on the spot the investigations which must be made if light is to be thrown on the causes and mode of prevention of those diseases which form a barrier to the advance of the white man and limit the progress of civilisation in many regions of the globe.

The city of Liverpool offers many advantages for the study of diseases arising in the tropics. Some of the largest steamship lines in the world have their headquarters in this port, and there is constant communication between it and various tropical countries, the intercourse with the West Coast of Africa being exceptionally great.

The Committee and medical staff of the Royal Southern Hospital have taken up this scheme with enthusiasm. There can be no doubt that in so doing they are conferring an immense benefit both on the people of Liverpool and on the country at large.

THE PLAGUE.

THE SPECIAL COMMISSION.

THE Plague Commission has held sittings during the past week at Lahore and Karachi, and from Indo-European telegrams to the *Times*, dated January 19th, 20th, and 23rd, we extract the following:

Captain James, Deputy Sanitary Commissioner in the Punjab during the epidemic, reported upon his experiences in Jullundur and Hoshiarpur during the epidemic of plague. Captain James stated that evacuation of premises, properly carried out, was the most satisfactory measure for dealing with plague. In no single village did it fail; were a village disinfected sporadic cases might occur, but there was no tendency to a general recrudescence when the population returned. Were disinfection neglected, however, plague reappeared, even after an interval of thirty-four days, when an evacuated house was re-occupied. Captain James mentioned that towards the end of an epidemic mild cases of "pestis ambulans" occurred, chiefly amongst boys.

Captain Wilkinson, Deputy Sanitary Commissioner in the Punjab, described the outbreak in 23 villages. Plague, according to Captain Wilkinson is conveyed by human agency; there is no proof that it is carried by rats or clothing. The pneumonic variety of plague he had not seen in the Punjab. The measures adopted in the villages were segregation, evacuation, disinfection with phenyl of holes and roofs, and whitewashing. The floor of houses was, for disinfecting purposes, removed to a depth of four inches and burnt.

Major Ross gave his experience of plague duty in Poona. The disease he considered was transmitted by human beings clothes, and rags. Not more than 30 per cent. of the plague cases were reported, even although paid informers were employed. Major Ross suggested the free poisoning of rats to prevent the spread of the disease.

Captain Clark, Civil Surgeon at Umbala, stated that in the Hoshiarpur District 1,407 inoculations against plague were performed. None of the inoculated took plague. Captain Clark advocated the use of disinfectants, and suggested that portable steam disinfectors should be provided.

Major Skinner disagreed with Dr. Cobb's and Dr. Simpson's diagnosis of cases of fever with buboes occurring in soldiers of the Shropshire Regiment as plague. Major Skinner had seen similar cases at Barrackpur, the Punjab, and Calcutta in 1894, before the arrival of the Shropshire Regiment from Hong Kong. Major Skinner holds that the cases he saw were cases of acute intermittent or remittent fever, which developed buboes while under treatment. All the specimens of blood in which Drs. Cobb and Simpson had found plague bacilli had been examined by him, and in none had he found the bacillus.

Mr. Giles, Acting Commissioner of Sindh, said that the first case occurred on December 10th, 1896, in his district, and that the initial epidemic ceased in July, 1897. It was only, however, during the second outbreak that segregation and hospital treatment were carried out. Evacuation was the most effective measure. Two months' evacuation, with the admission of sun and air, rendered houses safe to be reoccupied. Universal segregation Mr. Giles regarded as dangerous and unnecssary.

Colonel McCloghry, Civil Surgeon, said that the civil surgeons treated cases of plague wherever and whenever they were called upon to do so, that they did not conceal cases, nor did they report the causes of death incorrectly. He considered that during the second outbreak in Karachi the examination of the houses caused the rats to scatter and so spread the disease. Practically the whole town of Karachi was evacuated, and the result was eminently satisfactory. Hot weather had no effect in reducing the virulence of a plague epidemic, and he stated that in Sukkur, with the temperature at 115° in the shade, plague was rife.

ASSOCIATION INTELLIGENCE.

BRANCH MEETINGS TO BE HELD.

PERTHSHIRE BRANCH.—A clinical meeting will be held in the Royal Infirmary, Perth, on Friday, February 3rd, at 3.45 P.M. Business: 1, Read Minutes; 2, Election of Member, Dr. Taylor; 3, Clinical Cases; 4, Prevention of Tuberculosis; 5, any other business.—A. R. URQUHART, James Murray's Royal Asylum, Perth, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH.—An intermediate meeting of this Branch will be held in Liverpool in February. Gentlemen wishing to read papers, show cases, or make any communication, should communicate at once with the Honorary Secretary, Dr. JAMES BARR, 72, Rodney Street, Liverpool.

DUBLIN BRANCH.—The annual meeting of the Dublin Branch will be held in the Royal College of Physicians, Kildare Street, on Monday, February 6th, at 5 P.M. The officers and Council for the ensuing year will be elected by ballot, and any other necessary business transacted. Mr. F. T. Heuston, F.R.C.S., President-elect, will deliver an address on The Position of Poor-law Medical Officers in Ireland. The annual dinner will take place on the same evening in the College Hall at 7.30 P.M.—JAMES CRAIG, M.D., Honorary Secretary, 35, York Street, Dublin.

BORDER COUNTIES BRANCH.—The next meeting will be held in Penrith about the end of January. Members desiring to read papers, etc., will kindly communicate as soon as possible with the Honorary Secretary, W. F. FARQUHARSON, Garlands, Carlisle.

PROCEEDINGS OF THE COUNCIL.

At a meeting of the Council held in the Council Room of the Association, 429, Strand, London, W.C., on Wednesday, January 18th, 1899,

Present:

Dr. Robert Saundby, LL.D., President of Council, in the chair.

Dr. Charles Parsons, Treasurer.

Dr. James Barr, Liverpool.
Dr. Rayner W. Batten, Gloucester.
Dr. Michael Beverley, Norwich.
Dr. James Brassey Brierley, Old Trafford.
Mr. Langley Browne, West Bromwich.
Mr. Henry T. Butlin, London.
Mr. James Cantlie, London.
Dr. Alfred H. Carter, Birmingham.
Mr. Andrew Clark, London.
Dr. H. Radcliffe Crocker, London.
Dr. George W. Crowe, Worcester.
Dr. Maury Deas, Exeter.
Dr. E. H. Dickinson, Liverpool.
Dr. T. M. Dolan, Halifax.
Brig.-Surg.-Lieut.-Col. E. F. Drake-Brockman, London.
Dr. W. Dyson, Sheffield.
Mr. George Eastes, M.B., London.
Dr. W. A. Elliston, Ipswich.
Dr. Freeland Fergus, Glasgow.
Professor David W. Finlay, Aberdeen.
Dr. John H. Galton, Upper Norwood.
Dr. Alfred Godson, Cheadle.
Dr. Bruce Goff, Bothwell.
Dr. C. G. Gooding, London.
Dr. Ogilvie Grant, Inverness.
Dr. J. Groves, Carisbrooke, Isle of Wight.
Dr. Henry Handford, Nottingham.
Mr. John D. Harries, Shrewsbury.
Mr. J. Hughes Hemming, Kimbolton.
Dr. Holman, London.
Mr. T. Vincent Jackson, Wolverhampton.
Mr. T. R. Jessop, Leeds.
Mr. Evan Jones, Aberdare.
Dr. P. Sydney Jones, London.
Mr. N. C. Macnamara, London.
Dr. J. C. McVail, Glasgow.
Mr. H. J. Manning, Salisbury.
Dr. J. W. Miller, Dundee.
Dr. John William Moore, Dublin.
Dr. C. G. Drummond Morier, Glasgow.
Mr. R. H. B. Nicholson, Hull.
Surg.-Gen. T. F. O'Dwyer, Aldershot.
Dr. Isambard Owen, London.
Mr. C. H. W. Parkinson, Wimborne Minster.
Dr. R. W. Philip, Edinburgh.
Dr. H. H. Phillips-Conn, Reading.
Dr. Edwin Rayner, Stockport.
Dr. H. B. Robinson, London.
Dr. John Rolston, Stoke, Devonport.
Dr. William Russell, Edinburgh.
Dr. L. W. Sedgwick, London.
Dr. Alfred Sheen, Cardiff.
Dr. G. E. Shuttleworth, Richmond.
Dr. E. Markham Skerritt, Clifton.
Dr. R. Somerville, Galashiels.
Mr. Henry Stear, Saffron Walden.
Dr. J. Roberts Thomson, Bournemouth.
Dr. W. J. Tyson, Folkestone.
Mr. T. Jenner Verrall, Brighton.
Mr. G. E. Williamson, Newcastle.
Dr W. L. Winterbotham, Bridgwater.
Dr. S. Woodcock, Old Trafford.

The minutes of the last meeting having been printed and circulated were taken as read and signed as correct.

Read letters of apology for non-attendance from the President, the President-Elect, Sir Wm. T. Gairdner, Dr. Philipson, Dr. Henry Barnes, Mr. R. S. Fowler, Mr. Jordan Lloyd, Dr. Roderick Maclaren, Mr. Jones Morris, Dr. Rennie, and Dr. Urquhart.

The President of Council introduced Dr. C. G. Morier, the new representative of the Adelaide and South Australian Branch, who attended the Council for the first time.

Resolved: That the Council desires to express its sorrow at the unexpected and sudden death of Dr. W. F. Cleveland, and to express sympathy with the family in their bereavement. His very many excellent qualities evinced during his long connection with the Association, the valuable assistance he was able to render from time to time as President of the Metropolitan Counties Branch, and latterly as one of the representatives of that Branch in the Council of the Association, had gained for him the grateful esteem and respect of his colleagues, and will cause him to be long remembered among them.

Resolved: That the Council record its sense of the loss sustained by the death of Dr. I'Anson, of Whitehaven, and express its sympathy with Mrs. I'Anson and her family.

The following replies to the inquiries which the General Secretary had been directed to make relative to the registration of qualified medical practitioners in India and the Colonies were reported:

General Medical Council Office,
299, Oxford Street, London, W.,
November 11th, 1898.

Dear Sir,—Referring to your letter of 9th inst., I beg to state that this Council has no official information respecting the modes or conditions of registration of qualified medical practitioners in India and the Colonies, but by the Medical Act (1886) it is provided that registered medical practitioners shall, save as in the Act mentioned, be entitled to practise medicine, surgery, and midwifery in the United Kingdom and, subject to any local law, in any other part of Her Majesty's dominions.

Regarding the registration of persons holding Colonial qualifications in the Colonial List in the *Medical Register* I presume you do not seek information. Yours faithfully,

H. E. Allen, Registrar.

The General Secretary, British Medical
Association.

India Office, Whitehall, London, S.W.,
November 18th, 1898.

Sir,—In reply to your letter of the 9th instant, I am directed by Lord George Hamilton to inform you that there is no system of registration of medical practitioners in India, and that any person with or without a diploma is at liberty to practise medicine in that country.

I am, Sir, your obedient servant,
Horace Walpole.

The General Secretary, British Medical
Association.

Colonial Office, Downing Street,
January 12th, 1899.

Sir,—I am directed by Mr. Secretary Chamberlain to acknowledge the receipt of your letter of November 18th, asking for information respecting medical practitioners in the Colonies, and the laws of registration and qualification.

In reply, I am to state that this department does not appear to possess complete and reliable information on the subject made up in a convenient shape to the latest date; but if the Medical Association will specify more precisely the particular information they desire, in addition to the laws affecting registration and qualification, Mr. Chamberlain will be prepared to address a circular despatch to the Governors of all Colonies requesting them to supply such information.

I am, Sir, your obedient servant,
Fred. Graham.

The General Secretary, British Medical
Association.

Resolved: That the matter be left in the hands of the President of Council and Dr. Groves.

Read reply from Colonial Office in reference to minute of Council 4349, respecting the Notification of Infectious Diseases Act, 1898. The Local Legislature passed a law which compelled medical practitioners to notify infectious diseases under a penalty of 40s. fine, but provided no pay for the duty thus imposed.

Colonial Office, Downing Street,
January 13th, 1899.

Sir,—In reply to your letter of the 9th inst., I am directed by Mr. Secretary Chamberlain to inform you that the Governor of Jamaica has been instructed to introduce a law to amend Law No. 22 of 1898, and to provide for the payment of fees to medical practitioners for notifying infectious diseases, and to protect them from any legal consequences of such notification, but that the amending law has not yet been received.

Mr. Chamberlain regrets that by an oversight you were not informed to this effect at an earlier date.

I am, Sir, your obedient servant,
C. P. Lucas.

Robert Saundby, Esq., M.D., LL.D., F.R.C.P.,
President of the Council of the British Medical Association.

Resolved: That no medical practitioner resident in India or the Colonies shall be elected an unattached member of the British Medical Association until his or her name has been submitted to the Branch Secretary for report.

The President of Council reported that, in accordance with the resolution of the last meeting, the remaking of the Seal of the Association had been completed.

The President of Council reported that he had received a letter from Mr. Martin Woodward respecting the Pershore Board of Guardians, to the effect that he was much obliged for what had been done. He did not fear, at present, any fresh attack upon his position, but he would report if anything further occurred.

Read letter from Sir Willoughby Wade respecting his appointment by the Council as a delegate to the annual meeting of the Italian Medical Society:

Villa Monforte-Maiano, Florence,
December 25th, 1898.

DEAR DR. SAUNDBY,—I should be much obliged if you would convey to the Council my thanks for the honour they conferred upon me by appointing me their delegate to the annual meeting of the Italian Medical Society. Some time before the meeting I wrote in Italian to the General Secretary, I.M S., to inform him of the fact, stating the approximate number of members of the B.M.A. I said also that I should like to have an opportunity of conveying to the President and the Society the good wishes of the President of the British Medical Association and your own (on behalf of our members).

I also spoke to him on arrival in the same sense. He said no doubt some day would be fixed. But no day or meeting ever was, so that I had no opportunity of carrying out your wishes and those of the Council, which I much regret. Time did not permit me to report before the last meeting of the Council,

Yours very truly,
W. F. WADE.

Resolved: That Dr. Bridgwater's resignation as Chairman of the Medical Charities Committee be accepted with great regret.

Resolved: That the name of Dr. Isambard Owen be added to the Medical Charities Committee.

Read letter from the New Zealand Branch, with proposed alterations to their By-laws.

Resolved: That the alterations to the By-laws of the New Zealand Branch be approved and entered on the minutes.

Read letter and By-laws asking for the recognition of a new Branch of the British Medical Association for Western Australia.

Resolved: That the Council have great pleasure in recognising the West Australian Branch of the British Medical Association, but the by-laws as drafted be referred back to them with a request that they bring them more in accordance with the by-laws of the other Branches and those of the Association.

The following communication from the Worcestershire and Herefordshire Branch was reported:

November 23rd, 1898.

DEAR SIR,—I have been directed by my Branch to send you the accompanying copies of resolutions passed on the 17th instant, and to request that you will bring them before the Council at its next meeting.

I am, dear Sir, yours faithfully.
GEO W. CROWE, Hon. Sec.

Proposed by Dr. H. E. Dixey, seconded by Mr. Fosbroke:

That this meeting of members of the Worcestershire and Herefordshire Branch of the British Medical Association expresses its entire disapproval of the Vaccination Act of the present year, believing it must eventuate in a great relaxation of vaccination in the country, and in a few years lead to a large increase in small-pox.

The Branch would at the same time wish to dissociate itself from the opinion of those medical men who as members of Parliament supported the measure, and regret that a more vigorous and determined opposition was not given to the Bill by the Association and journals which presumably represent the views of the medical profession.

Proposed by Dr. H. E. Dixey, seconded by Mr. Fosbroke:

That the Branch is further of opinion that not only is compulsory primary vaccination necessary, but that revaccination between the ages of 14 to 16 should also be made compulsory: that more stringent measures should be taken to enforce efficient primary vaccination, and that with this view no certificate of primary vaccination should be allowed to be given which does not comply with the requirements of the Local Government Board.

Proposed by Dr. H. E. Dixey, seconded by Mr. Fosbroke:

That copies of these resolutions be sent to the several medical journals and to all Branches of the Association in order that concerted action may be taken by the medical profession to lay their views before the Government, and endeavour to induce them to pass an amending Act next session embodying these suggestions.

The minutes of the Parliamentary Bills Committee were then considered.

The President of Council undertook that when the Report of the Special Meeting of the Parliamentary Bills Committee upon the Midwives Bill was ready the Council should, if necessary, be called up to London to discuss the Report.

Resolved: That the Report of the Parliamentary Bills Committee upon the question of the Midwives Bill be printed and circulated.

Resolved: That the minutes of the Parliamentary Bills Committee of October 12th, 1898, and the 17th instant be received and approved, and the recommendations contained therein carried into effect (see page 241).

Resolved: That the report of the Subcommittee of the Parliamentary Bills Committee on Tuberculosis be received and adopted, that the report be printed in the BRITISH MEDICAL JOURNAL (see page 242), and circulated among members of Parliament, county councils, urban and rural sanitary authorities, medical officers of health, and to the Local Government Board for each division of the United Kingdom.

Resolved: That this Council do petition the Board of Agriculture either to extend the definition of diseases in the Diseases of Animals Act, 1894, so that it may comprise tubercle of the udder in milch cows, or to take such other action in regard to diseases of the udder in milch cows as will give effect to the recommendations on this subject contained in the Report of the Royal Commission of 1896 appointed to inquire into the administrative procedures for controlling danger to man through the use as food of the meat and milk of tuberculous animals.

Resolved: That the 166 candidates whose names appear on the circular convening the meeting be and they are hereby elected members of the British Medical Association.

The minutes of the Committee appointed to draw up regulations for Research Scholars were then considered:

1. That the Scholarships exist for the encouragement of research in Anatomy, Physiology, Pathology, Bacteriology, State Medicine, Clinical Medicine, and Clinical Surgery.

2. That each scholar shall be appointed by the Council upon the recommendation of the Scientific Grants Committee.

3. That the appointment shall be for one year only, but that each scholar shall be eligible for re-election on the recommendation of the Scientific Grants Committee, provided that his whole term of office shall not in any case exceed three years.

4. That the holder of the "Ernest Hart Memorial Scholarship" shall devote himself to the study of some subject in the Department of State Medicine, and that the holders of the other Scholarships shall study some subject in one of the other Departments enumerated in the first of these regulations.

5. That each applicant for a Research Scholarship shall sign a form stating his willingness to conform to these regulations, a copy of which shall be supplied to him. (See Appendix).

6. That each Scholarship year shall be deemed to commence upon July 1st, and terminate upon June 30th next following.

7. That each Association Research Scholar shall, towards the termination of his year of office, present a statement of the work he has done, which statement shall be posted so as to reach the General Secretary's hands not later than June 15th preceding the termination of his year of office.

APPENDIX.

BRITISH MEDICAL ASSOCIATION RESEARCH SCHOLARSHIPS.

I, *A. B.*, desire to apply for the Research Scholarship (* the Ernest Hart Memorial Scholarship) now vacant. I intend to devote myself to research in , and I agree, if elected, to conform to the rules laid down in the Regulations of Council, a copy of which has been handed to me. Signed *A. B.*

Date

(* These words should be struck out when an ordinary scholarship is being applied for.)

January 17th, 1899. ROBERT SAUNDBY, Chairman.

Resolved: That the minutes of the Committee for the Consideration of the Association Research Scholarships of January 17th be received and approved, and the recommendations contained therein carried into effect.

Resolved: That the minutes of the Inebriates Legislation Committee of November 21st, 1898, be received and approved, and the recommendations contained therein carried into effect.

Resolved: That the minutes of the Journal and Finance Committee of to-day's date be received and approved, and the recommendations contained therein carried into effect.

The minutes of the Journal and Finance Committee contain an opinion by counsel respecting the question of the interpretation of the Medical Acts; the accounts for the quarter amounting to £9,215 4s. 11d., and the report of auditors.

Resolved: That the minutes of the Premises and Library Committee of January 17th be received and approved, and the recommendations contained therein carried into effect.

The minutes of the Premises and Library Committee contain an acknowledgment from the bankers of the Association as to the certificates for the redemption of the land tax; the Librarian's report, and the accounts for the quarter.

Resolved: That the minutes of the Committee on Fees to Poor-law Medical Officers of January 17th be received and approved, and the recommendations contained therein carried into effect.

Resolved: That a Committee be appointed to consider the desirability, and, if thought desirable, to draw up and forward to the Government, on behalf of the British Medical Association, a memorial urging the appointment of a Commission to inquire into the subject of venereal disease in this country, with a view to check its spread, and to protect the public from its effects, and that the Committee be empowered to take such other steps as may seem to them desirable to forward this object.

Resolved: That the Committee consist of the President of Council, the Treasurer, Mr. Macnamara, Dr. Groves, Dr. Barr, and Mr. Parkinson.

Read letter and resolution from Dr. Cureton, of the Shropshire and Mid-Wales Branch respecting accommodation for medical witnesses in courts of law.

College Hill Court, Shrewsbury,
November 27th, 1898.

DEAR DR. SAUNDBY,—May I ask you to use all your great influence as President of our Council to help on the subject contained in my resolution (which I regret has been so long in appearing) in the JOURNAL of November 26th, 1898. I have promises of support from Sir Henry Littlejohn and the Secretaries of the Police Surgeons' Association. Having been police-surgeon here for nearly twenty years, I can speak as to the absence of any provision being made for medical witnesses. Will you please help us?—Yours faithfully,

ED. CURETON.

Medical Witnesses.—That in the opinion of this meeting some special accommodation should be provided for medical witnesses in waiting before the grand jury and in courts of assize and quarter session upon the production by them of their subpœnas or other evidence of identity to those in authority; and that copies of this resolution be sent to the Chairman of Quarter Sessions, Chairman of the Grand Joint Committee of the County Councils and Clerks of the Peace and Chief Constables in the area of the Branch.

PARLIAMENTARY BILLS COMMITTEE.

A MEETING of the Parliamentary Bills Committee was held at the office of the Association, 429, Strand, W.C., on January 17th, 1899.

Present:

Dr. R. FARQUHARSON, M.P., Chairman, in the Chair.
Dr. R. SAUNDBY, President of Council.
Dr. C. PARSONS, Treasurer.

Dr. D. B. BALDING (Royston)
Dr. T. R. BRADSHAW (Liverpool)
Mr. GEO. BROWN (London)
Mr. J. CANTLIE (London)
Dr. W. A. CARLINE (Lincoln)
Dr. P. MAURY DEAS (Exeter)
Dr. T. M. DOLAN (Halifax)
Dr. W. DOUGLAS (London)
Mr. GEORGE EASTES (London)
Dr. R. ESLER (London)
Dr. A. GODSON (Cheadle)
Dr. BRUCE GOFF (Bothwell)
Dr. M. GREENWOOD (London)
Dr. J. GROVES (Carisbrooke)
Dr. A. J. HARRISON (Clifton)
Mr. J. H. HEMMING (Kimbolton)
Dr. HOLMAN (London)
Mr. VICTOR HORSLEY (London)
Mr. EVAN JONES (Aberdare)
Dr. J. C. McVAIL (Glasgow)
Dr. W. J. MICKLE (London)
Dr. C. H. MILBURN (Hull)
Dr. J. W. MILLER (Dundee)
Dr. J. W. MOORE (Dublin)
Surg.-Gen. T. F. O'DWYER (Aldershot)
Mr. C. H. W. PARKINSON (Wimborne Minster)
Mr. A. BROWN RITCHIE (Hulme)
Dr. J. ROLSTON (Stoke, Devonport)
Dr. R. SOMERVILLE (Galashiels)
Mr. C. R. STRATON (Wilton)
Dr. J. C. THRESH (Chelmsford)
Insp.-Gen. A. TURNBULL, Emsworth
Dr. MARTINDALE WARD (Twickenham)
Dr. DAWSON WILLIAMS (London)
Dr. W. L. WINTERBOTHAM (Bridgwater)
Dr. S. WOODCOCK (Old Trafford).

The minutes of the last meeting having been printed and circulated were taken as read and signed as correct.

Letters of apology for non-attendance were read from the President, Dr. Ward Cousins, Mr. Jones Morris, Dr. Murphy, Dr. G. E. Shuttleworth, and Dr. Urquhart.

THE CASE OF DOCKRELL *v.* DOUGALL.

The CHAIRMAN called upon Mr. Horsley to present the report of the subcommittee on this matter.

Mr. HORSLEY said the matter was an important one, as Mr. Justice Ridley had expressed the opinion that anybody might take the name of a medical practitioner and use it in public for his own purpose, however distasteful that purpose might be. The Subcommittee recommended that the appeal which had already been lodged against Mr. Justice Ridley's decision should be prosecuted by the Association. After a good deal of discussion, the following resolution was proposed by Mr. HORSLEY and seconded by Dr. DOUGLAS:

That the report of the Subcommittee on the case of Dockrell *v.* Dougall be received and referred to the Council for decision as to further action being taken in the matter.

On the motion being put from the Chair, it was declared to be lost, 10 voting for, and 21 against it.

THE PREVENTION OF TUBERCULOSIS.

Dr. J. WILLIAM MOORE presented on behalf of the Subcommittee on Tuberculosis the report which had been prepared. He mentioned the chief recommendations contained in the report, and after discussion it was proposed by Dr. MOORE, seconded by Dr. SAUNDBY, and resolved:

That the report be received and sent on to the Council.

On the proposition of Dr. SAUNDBY, seconded by Dr. BRADSHAW, the name of Dr. NATHAN RAW, of Liverpool, was added to the subcommittee.

THE MIDWIVES BILL.

Dr. WOODCOCK said that the Subcommittee on the Medical Acts Amendment Bill and Midwifery Nurses Bill had, as a matter of urgency, been asked to take up the consideration of the new Midwives Bill, prepared by the body called the Midwives Bill Committee, which had been published in the BRITISH MEDICAL JOURNAL. In the new Bill certain of the suggestions which had been made by the General Medical Council had been embodied. It was, to say the least, a great improvement on anything hitherto produced by the Committee in question. He held that the most statesmanlike course for the Parliamentary Bills Committee to follow was to try to improve the Bill as far as possible without seriously interfering with the principles now embodied in it. Dr. Woodcock then enumerated the alterations in and additions to the Bill which the Subcommittee proposed.

After some discussion it was moved by Dr. WOODCOCK, seconded by Dr. SAUNDBY, and resolved:

That the report of the Subcommittee be printed and circulated, and submitted at a special meeting of this Committee to be held at an early date.

VACCINATION.

Dr. J. C. McVAIL presented a report from the Subcommittee on Vaccination, and explained the suggestions contained therein. Among them were recommendations as to the conscience clause and revaccination.

It was proposed by Dr. McVAIL, seconded by Dr. GROVES, and resolved:

That the report of the Vaccination Subcommittee be adopted.

ADULTERATION OF FOODS AND DRUGS.

Mr. GEORGE BROWN moved the following resolution, of which he had given notice at the last meeting:

That a Subcommittee, consisting of Dr. Cameron, Dr. Groves, Dr. Major Greenwood, and Mr. George Brown, be appointed to watch any legislation with regard to the adulteration of food and drugs.

The resolution was seconded by Mr. GEORGE EASTES, and carried.

SUPERANNUATION AND TENURE OF OFFICE OF MEDICAL OFFICERS OF HEALTH.

The resolution passed by a representative meeting of medical officers of health, held at Birmingham, as to the question of superannuation of medical officers of health, which had been postponed from the previous meeting of the Committee, was considered, and it was resolved:

That a Subcommittee, consisting of Dr. J. S. Cameron, Dr. Ogilvie Grant, Dr. J. Groves, Dr. McVail, Mr. Parkinson, and Dr. Thresh, be appointed to consider the question of the superannuation of medical officers of health, to watch any legislation on the subject, and the Council be requested to take any steps possible for the promotion of this object.

Subsequently the following resolution proposed by Dr. GROVES, seconded by Dr. DOUGLAS, was carried:

That in the interest of the public health and of justice it is essential that medical officers of health should be appointed during good behaviour, and should be permitted to provide themselves with pensions as are Poor-law medical officers, and that the Council be requested to invite the President of the Local Government Board to receive a deputation on the subject.

SCOTTISH POOR-LAW MEDICAL OFFICERS.

A communication and two draft Bills submitted by the Scottish Poor-law Medical Officers Association, in accordance with a resolution at the last meeting of the Committee, were considered.

Dr. BRUCE GOFF said that all that was desired by the Scottish Poor-law Medical Officers' Association was that the Scottish Poor-law medical officers should be placed in the same position as those in England. If a medical officer appealed to the Local Government Board for Scotland, and if the Board said that the parish council had no right whatever to enforce certain things, such as reducing his salary or imposing extra duties, the parish council said if they had not the right to do that, they had the right to dismiss him, and gave the medical officer three months' notice.

Dr. MILLER said he could endorse all Dr. Goff's remarks.

The CHAIRMAN said it would not be a bad thing to defer the ultimate consideration to the Special Committee to be called at an early date. In the meantime he would see Lord Balfour of Burleigh on the subject, and report to the next meeting.

The suggestion of the Chairman was adopted.

MILITARY TITLES OF RETIRED MEDICAL OFFICERS.

A memorandum on this matter was considered. The CHAIRMAN said he was in favour of retired medical officers who were eligible for employment being allowed to use the new military titles introduced in the Royal Army Medical Corps. On the reassembling of Parliament he would ask the Under-Secretary of State for War whether the War Office was prepared to grant the point. Then, if the answer was not satisfactory, the Committee could take further action.

It was proposed by Dr. MILBURN, seconded by Mr. VICTOR HORSLEY, and resolved:

> That the matter be left in the hands of the Chairman.

CORONERS AND MAGISTRATES.

Mr. HORSLEY, after some explanation, proposed the following resolution, which was seconded by Dr. WOODCOCK, and adopted:

> That the Parliamentary Bills Committee requests the Council to consider the recent condemnation passed upon Mr. Braxton Hicks (Her Majesty's coroner) by Mr. Plowden, a magistrate for a London district, and to convey the sympathy of the Association with Mr. Hicks for his efforts to secure the proper performance of necropsies for the purposes of coroners' inquests.

REGISTRATION OF PLUMBERS.

On the motion of Dr. DOUGLAS, seconded by Dr. WOODCOCK, it was resolved:

> That the Chairman be authorised to sign, on behalf of the Committee, the memorial of the Plumbers' Company to the President of the Local Government Board, asking him to introduce legislation for the compulsory registration of plumbers.

CENTRAL FUND FOR THE SUPERANNUATION OF POOR-LAW MEDICAL OFFICERS.

The discussion of the proposal of a central fund for the superannuation of Poor-law medical officers was adjourned to the next meeting.

REPORT OF THE SUBCOMMITTEE ON TUBERCULOSIS.

THE Subcommittee was appointed on October 12th, 1898, to consider "what steps should be taken to prevent the spread of tuberculosis in animals and man, and to report to the Parliamentary Bills Committee at its next meeting." The Subcommittee was appointed in consequence of a resolution passed in the Section of Medicine of the annual meeting in Carlisle in 1896. This resolution directed special attention to the two following points:

1. That provision should be made at the public expense for bacteriological laboratories by all sanitary authorities where the sputum of patients suspected to be suffering from tuberculosis disease may be examined and reported upon; and
2. That on the discovery of pulmonary phthisis in any individual of the poorer classes, public provision should be made for the treatment of such case in a public institution provided for the purpose at the public expense or by voluntary contributions.

I.—GENERAL SANITATION.

It is imperative that all sanitary authorities should put in force the manifold powers which they now possess for improving the public health, and especially in the direction of providing better ventilation and access of light in all dwellings and workshops and in all places of public assembly. The clearance of crowded sites and the reconstruction of insanitary house property under powers already possessed by local authorities is a matter of great importance in connection with the prevention of the spread of tuberculosis. It is also the duty of local sanitary authorities, through their medical officers of health, to assist in educating public opinion by the diffusion of leaflets and notices, pointing out the best means for limiting the spread of tuberculosis. This has been done in many instances.

II.—MORTALITY FROM TUBERCULOSIS IN CHILDHOOD.

The following statement shows for each of the three portions of the United Kingdom, and for the whole area, the annual mortality from tuberculosis and from acute specific diseases per million living at all ages, and in each of the first three quinquennial periods of life, during the decennium 1881-90:

		Ages.			
		0–5	5–10	10–15	All Ages.
(a) Acute Specific Diseases	England and Wales ...	9,130	1,839	541	1,667
	Ireland	5,595	1,444	588	1,131
	Scotland	9,764	1,858	591	1,774
	United Kingdom ...	8,795	1,788	552	1,606
(b) Tuberculosis	England and Wales ...	4,499	844	827	2,420
	Ireland	3,336	1 184	1,491	2,665
	Scotland	4,368	1,520	1,506	2,743
	United Kingdom ...	4,351	962	995	2,488

Experience has further shown that infants and children dying of respiratory and wasting diseases are in a large proportion affected by tuberculosis, although the patients have not presented obvious symptoms of the disease during life.

The mortality from tuberculosis in early childhood is not decreasing as it is at other ages in the United Kingdom, and the opinion that this great prevalence of the disease in infancy and childhood is due to infection through the alimentary canal by milk from tuberculous cows appears to be well founded. The following table, showing the mean death rates from *tabes mesenterica* in England and Wales among infants under 1 year of age per million living is given by Sir Richard Thorne in his second Harben Lecture:

1851-60 ...	3,160	1881-85 ...	4,356
1801-70 ...	3,800	1886-90 ...	4,462
1871-80 ...	4.467	1891-95 ...	4,046

III.—CONTROL OF THE MILK SUPPLY.

Sanitary authorities should possess adequate means for the systematic pathological examination of the milk supplied by retail or by contract in the district, whether it be produced within or without the district.

Urban authorities ought to have power to examine, or cause to be examined, cows, the milk of which is sold within their boundaries, wherever those cows may be, and should have the right to prohibit the sale of milk from any cow which is suffering from tuberculosis, or any disease which may render the use of such milk dangerous or injurious to health. The air space allowed in cowsheds should be fixed by order under the Contagious Diseases (Animals) Act, regard being had to difference of locality (for example between city and country), climate, breed of cattle, ventilation, heating, etc. The Committee suggest that 800 cubic feet per cow should be accepted as a standard requirement. The powers of local authorities for the systematic inspection of dairies and cowsheds should be extended so as to permit the examination of all cowsheds and dairies from which milk is sent into their districts, whether such dairies and cowsheds are situated within or without their district.

Powers of inspection are possessed by Glasgow under a local Act. The Glasgow clauses are given in Appendix I. Manchester, Salford, and Leeds propose to insert clauses giving similar powers in local Bills, and the Committee strongly recommend that similar facilities should be given to other authorities to obtain similar powers, in view of the very high mortality from tuberculosis in childhood. Otherwise Sections LX and LXI of the Public Health (Scotland) Act, 1897, should be made applicable to the rest of the United Kingdom.

IV.—TUBERCLE-FREE MILK AND MEAT.

The infection of tuberculosis in milk can be destroyed by boiling or sterilisation, but since milk can be obtained free from tuberculous infection, if the cows which yield it are ascertained to be free from tuberculosis by the tuberculin test, it appears to be undesirable to relieve wholesale and retail vendors of their responsibility in this regard by recommending the boiling of milk as the only necessary safeguard. This precaution would not obviate the risk of infection of and from other cows nor from tuberculous material scattered about the byres by the cattle therein enclosed, and no one can make sure that the precaution is adequately carried out.

The Committee are further of opinion that the addition of preservatives such as boric acid, formalin, etc., to milk by the vendors, whether wholesale or retail, should be entirely prohibited. Such substances are apt to be used to cover fraud; for example, the admixture with fresh milk of stale or separated milk. They do not render the milk sterile, and their habitual consumption is not in itself free from injurious effects on the individual.

The danger of the dissemination of tuberculosis by the use of meat from infected animals is much less than in the case of milk; but it undoubtedly exists, and can be effectually obviated only by inspection of the carcasses of all animals slaughtered for use as food. This can be most efficiently carried out in public slaughterhouses, and in the conclusions to this report certain recommendations are made on this head (3. A). The inspection of meat should include the compulsory examination of all imported meat.

Experience shows that milk from non-tuberculous cows can be supplied commercially to the public, and contracts have recently been let by institutions at ordinary prices with clauses making this provision. The Committee therefore recommends that all institutions receiving children, and also all hospitals, asylums, workhouses, etc., should insert clauses in their milk contracts, and also special clauses in meat contracts to prevent the supply of tuberculous meat. Forms of contract accepted for the supply of milk and meat to the Infectious Hospital of the Borough of Crewe were published by the Medical Officer of Health, Dr. Meredith Young, in the BRITISH MEDICAL JOURNAL of December 17th. (These are reproduced in Appendix II.)

V.—BACTERIOLOGICAL DIAGNOSIS.

The *first* paragraph of the resolution adopted at Carlisle deals with providing of means at the public expense for the pathological proof of the presence of the disease following a diagnosis founded on clinical methods.

The provision of such facilities must be a necessary part of any complete system of dealing with tuberculosis, and the provision made by the sanitary authority should be available for the assistance of Poor-law medical officers.

It may here be explained that the provision of "bacteriological laboratories" at the "public expense" by "all" sanitary authorities does not necessarily mean that each and every sanitary authority should provide a separate laboratory. These establishments might be provided jointly, or established institutions might be utilised for the purpose, the expense in each case being defrayed by the sanitary authority for whom the investigation is carried out. Many institutions of the character referred to are in existence, and appear to be most suitable to the work indicated.

VI.—TREATMENT OF TUBERCULOSIS.

With regard to the public provision for the treatment of cases of pulmonary phthisis among the poorer classes, it is necessary to distinguish between patients under the Poor Law and those who, though not under the Poor Law, belong either to the artisan and labouring classes and do not become chargeable to the Poor-law authorities except in the event of prolonged sickness, or those who are possessed of very limited means only. Further, in all classes a distinction must be drawn between early and advanced cases.

1. In early cases recovery may take place if the patient can be placed under favourable conditions.
2. In advanced cases, if the patient reside till death in a cottage or tenement, he is a source of danger to others, since it is almost impossible to insure effectual disinfection of sputa under such conditions of life.

Poor-law Cases.—The majority of cases admitted to workhouse infirmaries are severe and acute, or in an advanced stage. They are admitted into ordinary wards, which often also contain children. Such cases should be treated in wards reserved and specially adapted for consumptive patients, as a protection to other patients and in order that they may thus be submitted to a special *régime*, including the thorough ventilation of the wards by keeping windows open night and day, etc. With regard to early cases, it would appear to be within the power of Boards of Guardians and of sanitary authorities to provide special sanatoria on selected sites where the open-air treatment and suitable dieting, which has been found to give good results, could be applied.

Patients of Limited Means.—To meet the case of patients of the artisan and labouring class, and others of limited means, it will be necessary to establish by voluntary means institutions in suitable localities, where patients could reside for long periods. The Subcommittee learns that under the auspices of the National Association for the Prévention of Consumption and other Forms of Tuberculosis, such a sanatorium is about to be established on a self-supporting basis, the necessary capital being provided by a limited company formed *ad hoc* on the basis of paying to the shareholders a maximum rate of interest of 3 per cent., any additional profit to be funded with the view of eventually building additional sanatoria. The Subcommittee regards the establishment of such sanatoria as very desirable, in the interests both of the patients themselves and of the members of their families.

The provision by guardians or sanitary authorities might be made independently, by co-operation of districts, or by way of contributions to existing sanatoria for the artisan and labouring classes and others of limited means, established by private enterprise, benevolent or commercial.

VII.—NOTIFICATION AND DISINFECTION.

With regard to compulsory notification of phthisis and other tuberculous diseases, the proposal would probably go further than either public or professional opinion would approve. At the same time, the sanitary authority should be in a position to learn of the existence of at least all proved cases of pulmonary phthisis, and in all instances in which patients suffering from tuberculosis have been removed to hospital, or in which death has occurred, and in all other cases which may come to their knowledge, the local authorities should take measures for the prevention of contagion and for the cleansing and disinfection of premises where the patients have resided.

It seems probable that the provision of facilities for the examination of sputum free of cost would tend to supply such information to sanitary authorities, while at the same time facilitating the work of medical practice, especially among the poorer classes. The sanitary authority might then issue papers giving directions for the disinfection of sputa, might provide suitable means of disinfection, and if an adequate amount of accommodation in sanatoria can be provided (either by the guardians, by the sanitary authority, or by benevolent or business enterprise), might bring pressure to bear on the sufferers to enter such institutions.

CONCLUSIONS.

In conclusion the Subcommittee recommends as follows:

1. *Dwellings.*—Every house newly erected should be on a dry site and dry foundation (natural or artificial), and have sufficient space around it to allow of free access of air and sunlight. These conditions should be enforced by regulations of a national and not of a local (by-laws) character.
2. *Meat.*—Properly qualified men should be appointed as meat inspectors:
   (*a*) By every county borough and borough.
   (*b*) By all urban district councils.
   (*c*) By county councils for rural districts and by arrangement for small urban districts.
3. Powers should be obtained from Parliament as follows:
   A. *Slaughterhouses:*
   (1) To afford facilities for providing public slaughterhouses.
   (2) To prohibit slaughter for gain except in a public slaughterhouse after provision of such public slaughterhouse.
   (Recommendations (1) and (2) to apply to all boroughs and county boroughs and large urban districts.)

(3) Elsewhere all licences to be renewable annually and revocable easily.

(4) Compulsory examination of every cargo of imported meat. The charge to be borne by importer.

B. *Milk:*

(1) Minimum air space in cowsheds to be fixed as specified in paragraph III of this report.

(2) Power to local authorities to inspect systematically, or cause to be inspected, all dairies and cowsheds from which milk is sent in to their districts, and to exclude the milk if the application of the tuberculin test to any cow suspected of being tuberculous be refused; such inspection to be carried out by the medical officer of health with the assistance of a veterinary officer.

(3) Power to take samples of milk from any particular cow or cows.

(4) Power to prohibit the entrance of milk into any district if there are reasonable grounds for suspecting it to be tuberculous.

(5) All tumours (or affections) of the udders to be notifiable. If any cow is ordered to be slaughtered, there should be power to pay compensation if the cow proves not to be tuberculous.

(6) Imported milk (and dairy products) to be examined at the port of entry, the expense to be borne by the importer. If the milk is found to be tuberculous, advertisement to that effect, with particulars of source, etc., to be made in the *Gazette*.

4. *Pathological Diagnosis and Disinfection.*—

(1) All local authorities should make arrangements for the bacterial diagnosis of tuberculosis at the expense of such authorities.

(2) Local authority should undertake, free of charge, the disinfection of houses in which a tuberculous patient has resided, together with the bedding, clothing, and other articles capable of retaining the infection.

5. *Treatment.*—

Poor-law guardians and local sanitary authorities should be encouraged to provide suitable accommodation for the treatment of consumptive patients.

6. *General Measures.*—

Medical officers of health are advised to draw up leaflets for distribution, describing the precautions to be taken to prevent tuberculosis, and also precautions to be taken with patients to prevent the spread of infection, etc. A circular stating the best method of selecting, collecting, and preserving sputum and other excretions for bacteriological examination should be issued to medical practitioners in the district.

Local sanitary authorities should also take steps to diminish overcrowding in tenement houses and cottages. The minimum cubic space at present allowed under by-laws of sanitary authorities is quite inconsistent with healthy conditions of life.

Local organisations for supplying sterilised milk in sterilised feeding bottles should be encouraged.

7. The carrying out of the measures recommended should be generally under the direction of medical officers of health. For the effective application of means for the prevention of tuberculosis, especially those connected with the control of the milk supply, it is desirable that they should be supervised by the county medical officers. This affords an additional reason for the appointment of medical officers to all counties, and the Subcommittee regrets to observe that under the Local Government (Ireland) Act, 1898, no provision exists for enabling the county councils to appoint county medical officers of health.

APPENDIX I.

EXTRACT FROM THE GLASGOW POLICE (AMENDMENT) ACT, 1890, 53 AND 54 VICT., CH. CCXXI.

24. *Power to Enter Byres.*—The medical officer or sanitary inspector, or any person acting under their orders, provided with, and, if required, exhibiting the authority in writing of such medical officer or sanitary inspector may from time to time, within reasonable hours, enter any byre or cowshed within the city, or wherever situated, if the milk produced therein is being sent for sale within the city, and may inspect and examine any cow kept therein for the supply of milk, in order to determine whether such cow suffers from any disease which might render the use of the said milk dangerous or injurious to health.

25. *Owners of Cows to Assist the Medical Officer.*—Every owner of any cow kept within the city for the supply of milk, or wherever kept if the milk is being sent for sale within the city, and every person in charge of the same shall render such reasonable assistance to the medical officer, sanitary inspector, or other person provided with, and, if required, exhibiting the authority in writing of such medical officer or sanitary inspector for the purpose of inspection and examination as may be required by them, and any person refusing such assistance or obstructing the inspection shall be liable in a penalty not exceeding five pounds, and such penalty may be sued for and recovered before the sheriff of the county in which such person is domiciled.

26. *Intimation to be given of Diseased Cows.*—Every dairyman or keeper of a byre or cowshed whose milk is sold within the city, who, after intimation has been made to him by the Police Commissioners that any cow in his possession kept for the supply of milk for human consumption suffers from tuberculosis or any disease which might render the use of such milk for human consumption dangerous or injurious to health, shall retain such cow in his possession shall, unless the contrary be proved, be presumed to have sold the milk produced by such cow for human consumption, and shall be liable in a penalty not exceeding £5, and such penalty may be sued for and recovered before the sheriff of the county in which such person is domiciled at the instance of the procurator fiscal.

27. *Penalty for Selling Milk of Diseased Cows.*—Every person who knowingly sells or suffers to be sold or used for human consumption within the city the milk of any cow which is suffering from tuberculosis, or any disease which might render the use of such milk dangerous or injurious to health, shall be liable to a penalty not exceeding £10 for each offence; and in any case where the person liable to a penalty under this section is not resident within the city, such penalty may be sued for and recovered before the sheriff at the instance of the procurator fiscal.

APPENDIX II.

MILK AND MEAT CONTRACTS.

Dr. Meredith Young, Medical Officer of Health, Crewe, has stated that the following contracts have recently been accepted by tradesmen undertaking to supply the isolation hospital of the borough. Dr. Young adds that the persons who have accepted those conditions were also able to quote the lowest price for all the articles named.

"MILK AND BUTTER CONTRACT.

"(*a*) The contractor agrees to supply the milk from his own cows, kept and fed on his own farm, and if at any time he shall temporarily supply milk from cows other than his own, he shall, if so required by the medical officer of health, furnish him with the name and address of any person from whom such supply is obtained.

"(*b*) The contractor shall at all reasonable times allow the medical officer of health, or veterinary surgeon of the Corporation, with or without assistants, to inspect his cows, cowsheds, dairy, milk shop, milk store, and all receptacles which are used for the production, storage, or distribution of milk, and shall, whether resident within or without the borough, carry out the provisions of the dairies, cowsheds, and milk shops regulations in force for the time being in the borough of Crewe.

"(*c*) The contractor shall, at any reasonable time, allow the veterinary surgeon for the borough of Crewe, in company with the medical officer of health, and with or without assistants, to apply the tuberculin test to any or all of the milch cows on his premises, and in the event of the tuberculin test above named giving any reaction (thus demonstrating the presence of tuberculosis), he shall, if this be necessary in the opinion of the medical officer of health or veterinary surgeon, immediately cease to supply the milk of such cow or cows for the purpose of carrying out the contract. If the contractor shall continue to keep any cow after the presence of tuberculosis in it shall have been demonstrated by the tuberculin test to the satisfaction of the veterinary surgeon of the borough of Crewe, or the medical officer of health, this shall be held to be *prima facie* evidence that the milk from such cow is used for the purpose of supplying milk under this contract.

"(*d*) The contractor agrees and guarantees that the milk supplied under this contract shall in all cases contain not less than 3.2 per cent. of fat, as ascertained by analysis.

"(*e*) The contractor agrees and guarantees that no preservative of any kind whatever shall be added to the milk or butter supplied under this contract.

"MEAT CONTRACT.

"(*a*) The contract will be accepted subject to the contractor guaranteeing and agreeing that the whole of the meat supplied under the contract shall be English produce of the best quality, and from animals free from any trace of tuberculosis or any other disease.

"(*b*) The contractor, whether resident within or without the borough, agrees to carry out the by-laws relating to slaughterhouses in force in the borough of Crewe, and shall at all reasonable times allow the slaughterhouses used by him, and any premises used for the storage or sale of beef, and all furniture, receptacles, etc., used in connection therewith, to be inspected by the medical officer of health, the inspector of nuisances, or any other authorised official of the Corporation.

"(*c*) The contractor agrees not to supply any meat which has been blown or inflated.

"(*d*) The contractor agrees, if required by the medical officer of health, to furnish him with the name and address of any person who has been engaged in the keeping, slaughter, dressing, or preparation of the animal's carcass, or meat for sale, or of the person from whom any animal, carcass, or meat was purchased or obtained."

January 18th, 1899.

SOUTH-WESTERN BRANCH.

AN intermediate meeting was held at Plymouth on January 14th. The President, Dr. **HUGH MONTGOMERIE** (Penzance) occupied the chair, and forty members were present.

Luncheon.—Before the meeting luncheon was served at Risdon's Restaurant.

Confirmation of Minutes.—The minutes of the last intermediate meeting at Exeter on October 21st, 1898, were read and confirmed.

New Members.—The election of the following by the Branch Council, which had met at 2 P.M., was reported: (1) Members of the Association to the Branch: C. J. Vlieland, M.D., Exeter; F. E. Cave, L.R.C.P., M.R.C.S., Torquay; W. A. Winwood Smith, L.R.C.P., M.R.C.S., Torquay; R. Wheatley, M.R.C.S., L.D.S., Torquay; G. Parkinson, M.R.C.S., L.S.A., Exmouth; G. C. Jackson, M.B., B.C., Plymouth; C. D. Lindsey, M.B., Plymouth; W. H. Boger, M.R.C.S., Fowey; D. M. Barry, L.F.P.S.G., Grampound; H. W. Armit, M.R.C.S., St. Austell, E. A. Shaw, M.B., Surgeon R.N.; J. Gardiner, B.A., M.R.C.S., Plymouth; A. Turner, M.D., Plumpton. (2) To the membership of both Association and Branch: Clarence Beesley, L.R.C.P., D.P.H., Exmouth; W. H. Steele, M.B., C.M., Torquay.

Case.—Mr. **WOOLLCOMBE** showed a case of Inoperable Cancer of the Breast, treated by oöphorectomy and thyroid extract. The result up to date was very satisfactory.—The **PRESIDENT**, and Drs. **GORDON** and **ALDRIDGE**, joined in the discussion.

Papers.—Dr. **GORDON** read a paper on Albuminuric Retinitis, dealing with the subject mainly from the point of prognosis. The **PRESIDENT** and Drs. E. L. **FOX** and **NORWAY** took part in the discussion.—The **PRESIDENT** read notes of a case of Dysentery acquired in the tropics, in which the salicylate of bismuth proved very successful. Dr. **VINTER** spoke on the subject.—Dr. E. L. FOX described a simple method of applying the treatment of Joint Affections by Superheated Air. and gave a demonstration of his apparatus.

The Prevention of Tuberculosis.—Dr. **BUSHNELL** opened a discussion on the aims and objects of the National Association for the Prevention of Consumption and other forms of Tuberculous Disease. Mr. **PAUL SWAIN** proposed, and Dr. N. E. **NORWAY** seconded, the following resolution, which was carried unanimously:

> That this meeting of the South-Western Branch of the British Medical Association is in accord with the aims and objects of the National Association for the Prevention of Consumption and other forms of Tuberculous Disease; and that a provisional Committee be formed to establish a local Branch for the counties of Devon and Cornwall.

The President, the Hon. Secretary, Dr. Pollard, Dr. Bushnell, Dr. Norway, and Mr. Paul Swain were appointed a provisional Committee.—Dr. E. L. Fox proposed, and Dr. **BUSHNELL** seconded:

> That the above Committee be asked to act in conjunction with the Committee already appointed by the Plymouth Medical Society.

This was carried.

Specimens.—Mr. **LUCY** showed a large Myomatous Uterus removed by abdominal panhysterectomy after Doyen's method.

Tea.—After the meeting Mr. Paul Swain kindly entertained the members to tea at his residence, 17, The Crescent, Plymouth.

SPECIAL CORRESPONDENCE.

THE RIVIERA.

The Weather Good and Bad.—The Riviera for the Aged.—Defective Provision for Open-Air Treatment of Phthisis.—The Recent Outbreak of Typhoid Fever at Nice.

THE weather on the Riviera during the past autumn has been singularly fine; heavy rains during October and early November have laid the dust and refreshed the parched olive groves; while, with the exception of one gale of unusual severity which washed away part of the port at Genoa, and did considerable damage all along the coast, there has been decidedly less wind than usual this year. The typical fine Riviera day at this season opens with a still, sunny morning; by 10 A.M. the temperature has risen sufficiently to enable one to sit out of doors without wraps, by midday a sea breeze usually springs up, which follows the sun round until about 4 P.M., when it begins to drop. At this hour the temperature falls rapidly, and a very definite feeling of chilliness is experienced. By 6 P.M. the temperature has again risen slightly, and the atmosphere is generally perfectly still; indeed, this is the time selected by the native population for taking a walk. This chill at sunset has been credited with many noxious influences, and has come to be regarded with somewhat unreasonable dread. Still, the fact is that the change of temperature is more rapid than is experienced at home, and unless guarded against is very apt to produce a chill. It is wiser for the invalid to be in the house at this time, though there is nothing to prevent his going out in the night air when the sunset chill has passed. The robust visitor, by carrying a great coat or wrap, will generally go unscathed. There is, of course, a reverse to this picture: days with grey skies and cold boisterous winds, or an occasional day of semi-tropical rain. But the sun is never hidden for long, and there is never any fog.

From a medical point of view, the advantage of a sojourn on the Riviera is the opportunity it affords of being in the open air. The elderly man who at home perhaps gets an attack of bronchitis in the autumn and is confined to the house in the spring, can on the Riviera spend a fair part of his day in the sunshine. Leading such a life, his general health will be improved and probably his life prolonged. The old and spent get more certain benefit from wintering on the Riviera than any other class of patient.

Using the term "open air" in its modern sense as applied to the treatment of phthisis, the conditions on the Riviera call for improvement. The climatic conditions alone permit of a large degree of open-air life without artificial aids such as shelters. On the other hand, it must be admitted that a great deal more open-air treatment could be carried out than is the case. Though as a rule the hours of daylight are fairly well utilised, yet the invalid spends many bad days indoors simply from the absence of suitable shelters in which he could sit out in any weather. This defect is still further felt with regard to the evening hours. Although the phthisical patients ought not to be subjected to the chill of the sunset hour, there is nothing to prevent them sitting out from, say, 6 P.M. to bedtime. With shelters properly lighted so as to enable the patients to read, several hours of fresh air would be gained almost daily. Of late years a great and salutary change has come over the attitude of patients with regard to submitting to discipline as to their manner of life. Anywhere outside a sanatorium discipline is a difficult matter, but once it has been fully recognised, as regards phthisis at all events, that the pursuit of pleasure and that of health are incompatible at one and the same time, the difficulties decrease. The presence side by side of a pleasure-seeking and an invalid class present some difficulties, but with increasing knowledge on the part of the patients themselves these can be minimised.

Many conflicting statements as to the presence of typhoid fever at Nice have appeared both in the English and French papers. The actual facts of the case are briefly these. In October typhoid fever occurred in the poorer quarters of the town; the cases were most numerous during the last fortnight in October, and since then has gradually declined. With regard to its incidence on the Anglo-American visitors at Nice it should be noted that no case has occurred in any hotel or pension in Nice. Amongst the Anglo-American resident colony two cases only occurred; in both instances the patients were servants. One of these succumbed. Since the middle of October no fresh case has occurred amongst the Anglo-American colony. The epidemic has therefore been practically confined to the poorer quarters of the town, and this fact has an important bearing on its probable mode of origin. In spite of a pure and abundant water supply the native population often persists in taking its water from old wells which still exist in the native quarters of the town, and which are as often as not in close juxtaposition with leaky cesspools. The early autumnal rains probably washed the cesspool contents into the wells, thus causing an outbreak. It is probable that the source of infection is removed by the later heavy rains washing away the polluted subsoil water. From these facts it is fairly obvious that visitors were never at any time in any great risk of infection. The two cases mentioned above occurred in private residences. Visitors taking apartments can secure themselves from any danger of infection by insisting upon using the regular water supply and having their drains thoroughly overhauled. Nice has suffered severely from the scare which this epidemic has produced, but it is unfortunately the fact that few towns of like size pass through an autumn without a certain number of cases of typhoid occurring. Still it is only natural that with so many winter stations to choose from the travelling public should avoid a place where typhoid is known to exist. Now that the epidemic is over and its distribution and cause has been made public, it is hoped that the tide of visitors will once more set in the direction of Nice. The authorities at Nice have faced the matter resolutely, and have taken steps to avoid a recurrence of the outbreak.

PARIS.

Professor Proust on Sanatoria for Tuberculous Patients.—New Gynæcological Wards at the Broca Hospital.

PROFESSOR PROUST in a recent lecture at the Paris Medical Faculty on sanatoria made some statements which are especially interesting at the present time. It was observed some time ago that the bacillus of tuberculosis is less abundant and perhaps less virulent in proportion to the altitude attained. Dr. Spengler, of Davos, noted that there were no cases of tuberculosis where he practised. This fact was made known and cases were sent to this locality, and were cured. The great advantage of altitude was said by M. Proust to be the asepticity of the air: At a height of 1,000 metres hardly any germs are found; at 1,500 metres the air is absolutely pure and is comparable to laboratory sterilised air; thus, secondary infection is avoided. The following sanitary conditions are required: The district chosen must be absolutely healthy; good drinking water is indispensable. Medical men should be in constant attendance, as accidents such as hæmoptysis may happen at any moment and require immediate treatment. Cows should be kept; the quality of the milk can thus be supervised. It is desirable to be within reach of a centre where provisions are easily obtained, but sanatoria should not be too near a thickly populated place. A mountainous district ensures a pure water supply. Notwithstanding the advantages resulting from a site on a height, this is not indispensable. Sanatoria are well placed on the sea coast, or at a height of only some hundred metres, or in a wide open valley protected by mountains against the north wind. The soil should be permeable, so that drainage may be easy. Proximity to pine forests is desirable. One hundred patients should be the maximum number in a sanatorium. The model sanatorium for rich patients is the one at Hohenhonnef. At present in France there are the Ormesson and Villiers Hospitals for tuberculous children. They contain 350 beds. The Villepinte Hospital, in the Seine and Oise department, is intended for tuberculous women, and can receive 270 patients. At Hyères there is a small hospital, with 18 beds, for patients who are threatened with tuberculosis. The Assistance Publique is building at Angicourt, in the Oise department, a sanatorium for poor tuberculous patients; it is situated at a height of 95 metres above the the town of Liancourt, which is two miles and a half from the sanatorium. Lyons will soon have a sanatorium for its tuberculous poor. The Hauteville sanatorium, as it will be called, is situated at a height of 900 metres in a mountainous district in the Ain department; it is protected against the north winds, and is surrounded by a pine forest.

The President of the Republic a few days ago opened the new gynæcological wards of the Broca Hospital. The walls of the wards are covered with frescoes by celebrated artists—Dubufe, Bellery, Desfontaines, and others. There is a long glass gallery covered with frescoes by Clairin. The operating theatre is said to be the best of the kind; it is so constructed that it can be flushed by water. There is a special operating room used for performing laparotomy; this also can be thoroughly washed out; it communicates with the sterilising room, which is splendidly fitted up with sterilising apparatus. The ventilation is effected by means of air from without warmed by a special apparatus; after passing through the wards it is then carried off by exhaust tubes.

BERLIN.

Proposed Health Legislation.—Medical Examinations.

IN the speech from the Throne at the opening of this year's session of the Prussian Diet, the German Emperor announced that new legislation was being prepared on matters connected with public hygiene; that the powers of the Prussian Aerztekammern (representative bodies of medical men) were to be extended, and medical courts of honour shortly to be established.

Medical experts from the different German States met last week in the "Reichsamt des Inneren" for the purpose of discussing some desirable alterations and reforms in the medical examinations, and some proposed changes in the German *Pharmacopœia*, and also to ventilate some of the chief medical questions of the day, such as the admission of women to the medical courses, the lung-sanatoria question, etc. As regards the medical examination, the meeting concluded to recommend that it should in future embrace examination in: (1) Pathological anatomy and general pathology, (2) pharmacology, (3) medicine, (4) surgery, (5) obstetrics and gynæcology, (6) ophthalmology, (7) pædiatrics, (8) psychiatrics, (9) hygiene. The ophthalmological examination to be conducted by an examiner in the eye department of an important hospital, or in a university clinic or policlinic, and is to last two days. The rhinological and laryngological examinations may form part of the surgical examination; the otological, dermatological and syphilogical examinations part of the examination in general medicine. The pædiatric examination is to be conducted either in the children's department of an important hospital or in a university clinic or policlinic, and is to last one day. In presence of the examiner the candidate is to examine a sick child, to establish the history, diagnosis, and prognosis of the case, as well as the plan of treatment; to write a report and submit it to the examiner for signature; and finally to pass an oral examination on children's diseases. The psychiatric examination is to be conducted in an exactly similar manner in the mental disease department of an important hospital or in a university clinic. As regards the hygienic examination, the candidate must prove that he has the necessary knowledge in public hygiene, that he is conversant with the chief hygienic methods of examination, and especially with bacteriological methods, and that he is at home in the principles as well as the technique of vaccination. The question as to the condition under which foreigners should be admitted to the medical examinations, met with the unanimous answer that they must submit to exactly the same examinations as German subjects. The admission of women to medical university courses and medical examinations was negatived, the question being pronounced not yet ripe for decision, the majority of German universities being against it.

BRISTOL.

The Salary of the Medical Officer of Health.—A Sanatorium for Consumptives.

THE adverse vote of the Council on the question of the proposed increase to the salary of the medical officer of health in consequence of the new duties imposed on him has led to a deadlock, and some means had to be found to remedy the unsatisfactory state of affairs. The position at present is that Dr. Davies has been appointed Medical Superintendent of the fever hospitals, but the Council refused to grant any salary. The fault appears to have arisen from the manner in which the salary was asked, and from a want of knowledge of the regulations of the Local Government Board on the point. Since the vote an expression of opinion by Sir Richard Thorne on several points has been received. It is to the effect that it is no part of the duty of the medical officer of health to administer such a hospital, and though in some cases it has been found advisable to appoint him, the salary for performing such duties must be distinct from that paid him as medical officer of health, and will not be taken into account by the Local Government Board in those cases where the Board certify the repayment by the county. This opinion, which the Council are bound to follow, places the matter on an entirely different footing, and provided Dr. Davies accepts the appointment—and we have every reason to believe that he will—he must have a salary distinct from that paid him as medical officer of health, and this salary will have to come wholly out of the rates, not being half paid—as his salary as medical officer of health is—by the country. The Chairman of the Health Committee said that the proper course to be adopted was to report to the Council again giving more definite information on the matter, and he therefore proposed that a report be drafted recommending that Dr. Davies be appointed medical superintendent at a salary of £50 for the first year and £100 afterwards. This was carried with practically no opposition. It is not anticipated that when the opinion given by Sir Richard Thorne is made known to the members of the Town Council any difficulty in granting the salary proposed will arise.

An article in one of the local daily papers announces that a sanatorium for consumptives has been opened in Somersetshire, where patients will be treated on the lines laid down by Dr. Walther at Nordrach. The house which is situated on the Mendips, nearly 900 feet above sea level, and faces south and south-east, was formerly used as a private asylum, and has about 65 acres of grounds attached. The proprietors, who are medical men, and living examples of the efficacy of the Nordrach treatment, have certainly chosen a spot where they cannot be annoyed by the frequent visits of relatives or friends of patients, as the house is eighteen miles from Bristol and eight from Wells or Cheddar. As a matter of fact visitors are not allowed. That the proprietors call this house "Nordrach in Mendip" shows a want of originality which is regrettable; for much as the association of such a name as Nordrach may help them, we have not called Bath "Nauheim in Somerset," though that form of treatment is carried out there, we believe, as thoroughly and scientifically as by the Brothers Schott.

CORRESPONDENCE.

THE CASE OF REGINA *V.* REICHARDT: AN APPEAL.

SIR,—The case of Regina *v.* Reichardt being now closed, may I write to second the appeal made by Dr. Savage in the BRITISH MEDICAL JOURNAL of July 25th, 1898, page 274, for funds to meet the very heavy expenses that have been incurred by Dr. Reichardt in his defence?

I need hardly say that the case is one of the greatest importance, both to the medical profession and the public at large. The Commissioners in Lunacy sought to convict Dr. Reichardt of the misdemeanour of taking a lunatic into his house without certificates, notwithstanding their knowledge of the fact that Dr. Kingsford, Dr. Savage, and I had each of us expressed the opinion that the patient was not one who ought to be certified.

The action of the Commissioners is, therefore, virtually an attempt to compel medical men to treat all cases of unsoundness of mind by Act of Parliament by placing them under certificates. If the prosecution had been successful in this and in a prior case, no one would have been any longer able to take any case of temporary unsoundness of mind into his house except as a certified lunatic. A more cruel, radically unsound, or preposterous doctrine it is impossible to conceive.

With the temporarily deranged recovered of their madness, and prosecuting their medical advisers because of their certification on the one hand, and the Commissioners prosecuting us on the other hand because of the absence of certificates, God help the unsound of mind who will yet be needing treatment.

Fortunately for those who become temporarily deranged, and for those who take them into their houses to treat them—for most of these cases cannot well be treated at home—the prosecution has failed; but the defendant is saddled with expenses amounting to £700 because he did his duty and the best for the patient.

I venture to hope that we shall all see that in defending himself Dr. Reichart was defending the right of every one of us to do the best that can be done for every individual patient according to his needs, even though Acts of Parliament, when administered by the letter rather than by the spirit, may seem to indicate otherwise.

Contributions may be sent to Dr. George Savage, 3, Henrietta Street, Cavendish Square, W., or to myself. I am, etc.,

25, Portland Place, W., Jan. 24th. JAMES F. GOODHART.

PUBLIC VACCINATORS AND THEIR FEES.

SIR,—When the minimum fees were first prescribed by the Local Government Board I, as a public vaccinator in an *urban* district, considered that they were fairly liberal. Experience in the carrying out of the orders of the Board has, however, altered my opinion. When the multifarious duties of public vaccinators under the new Act are considered it will be found, I venture to assert that the minimum fees are really quite inadequate. As experience is the best test, I may say that out of a list of thirteen children furnished me by the vaccination officer I succeeded after visitation in vaccinating one child; the remaining twelve were either dead, or ill, or had left their given addresses. Although I am willing to admit that the regulation respecting insanitary dwellings is a wise one, yet I cannot help feeling that public vaccinators should be entitled to a fee for inspecting and reporting such dwellings to the medical officer of health. Again, the time that is necessarily taken up in inspecting delicate children is not inconsiderable, and should be considered when the fees are finally fixed. From my short experience I have found that parents are fully aware that they can call on the public vaccinator to treat their children after vaccination for ailments which they (the parents) think are caused by the operation.

Before I conclude I should like to bear witness to the efficacy of the glycerinated calf lymph sent out by the Local Government Board. I must acknowledge that better results have been obtained by using that lymph than I had previously obtained from using lymph from private sources.

I have mentioned these facts because I feel that the Local Government Board should favourably consider those cases where the guardians and public vaccinators have failed to agree about terms.—I am, etc.,

January 25th. A PUBLIC VACCINATOR.

INSUSCEPTIBILITY TO VACCINATION.

SIR,—The annual report (1896-97) of the Medical Officer of the Local Government Board contains the statement that, under a system of calf-to-arm vaccination, 101,487 consecutive primary vaccinations performed by the Board's own vaccinators have failed to yield one case of "insusceptibility;" but in a total of 629,158 primary vaccinations in England and Wales of children born in 1894, no fewer than 3,032 cases of "insusceptibility" are recorded. At this rate the Board's vaccinators should have had to chronicle some 460 such instances. Comment seems needless; the inference is apparent.

Now this appears to me to be a little unjust. I have been doing this operation for a quarter of a century, never failing in arm-to-arm vaccinations; but I have, a good deal oftener than I like, had to sign certificates of insusceptibility when vaccinating from calf lymph supplied in tubes. In some cases I have repeated the operation five times with every possible care and then failed.

General practitioners have not the same opportunities as Local Government Board officials in doing calf-to-arm vaccinations, and I think those officials should be careful not to draw "inferences" or make comments that are not just.—I am, etc.,

January 23rd. GENERAL PRACTITIONER.

THE PROPOSED SCHOOL FOR TROPICAL DISEASES.

SIR,—There has appeared in your valuable columns during the past few weeks correspondence relating to the proposed School of Tropical Medicine about to be founded at the Branch Hospital of the Seamen's Hospital Society. May I, as one practically interested in the question, be allowed to add a few words upon the subject under discussion?

It it has been alleged in your columns by some our leading teachers of medicine in London, first:

> That the diseases of hot climates are included in the lectures on the practice of medicine given at every medical college and school in the kingdom.

A statement like the above is utterly misleading to the general public. At my own school (St. Bartholomew's Hospital), where I have had the privilege of spending the greater part of the last seven years, the teaching on the diseases of hot climates is most superficial. I do not blame the school for this. The clinical material available is almost *nil*, and the subject cannot, in all fairness, be considered to be adequately treated in a few lectures thrown into a course on general medicine.

In the second place it is stated:

> For clinical work the material afforded by the Dreadnought and branch is available for those residing in London.

After I had finished my ordinary course, I, as one intending to work abroad, naturally looked round for some instruction in tropical diseases, with the result that the only place I could find was the Branch Hospital. As to the Dreadnought, never during my course did I hear, nor at the present time am I aware, that there is a systematic course of instruction by those having a practical knowledge of the diseases of hot climates at that institution.

For myself, all the knowledge I possess has been obtained at the Branch Hospital, and very grateful am I to the officials there for the teaching thus obtained; for I now go abroad with the feeling that I am not starting as an utter novice on a wide and difficult subject. For this cause I welcome the founding of the new school, and intend to do all in my power to promote its interests.—I am, etc.,

J. PRESTON MAXWELL, M.B., B.S.Lond., F.R.C.S.

London, N., Jan. 20th.

THE PREVENTION OF TUBERCULOSIS.

SIR,—Dr. Ransome, in his sketch of the progress in the direction of the prevention of tuberculosis in the BRITISH MEDICAL JOURNAL of January 21st, does me the honour to mention my paper on this subject at the International Congress of Hygiene in 1891.

The—perhaps pardonable—pride which I feel in being one of the pioneers in this direction, prompts me to refer to an earlier paper of mine on the Prevention of Consumption, which is, I believe, one of the first—perhaps absolutely the first—in this country under this title since the discovery of the bacillus tuberculosis. It was read before the Epidemiological Society ten years ago, and is published in the *Transactions* (N.S., vol. viii). Since that time much advance has been made in details, and fuller proof is now available of the truth of the propositions then advanced; but the principles advocated in that paper are the same as those which are now receiving general acceptance.—I am, etc.,

Harley Street, W., Jan. 24th. J. EDWARD SQUIRE.

A CENTRAL FUND FOR THE SUPERANNUATION OF POOR-LAW MEDICAL OFFICERS.

SIR,—An instance lately occurred in a parish within the four-mile radius from Charing Cross which well illustrates the necessity of a central fund for the superannuation of Poor-law officers. A vacancy had arisen for an outdoor district medical officer, and foremost among the selected candidates was a candidate living in the adjoining parish. Everything pointed to this man getting the vacancy, when at the Board meeting a guardian suddenly asked how many years this gentleman had been a Poor-law officer, and on his replying "Fourteen years," the guardian said "Then I shall oppose your appointment, as if you break down next week our parish will have to superannuate you." Needless to say, length of service and experience in the duties availed nothing, and a young man with a very small Poor-law record obtained the vacant post.

The older officials who have got fairly good appointments need not trouble, but surely those who will one day seek promotion from other Boards ought to help to place all on an equality.—I am, etc.,

January 23rd. POOR-LAW MEMBER.

THE COEXISTENCE OF ZYMOTIC DISEASES.

SIR,—Those engaged even to a limited extent in the treatment of zymotic diseases have reason to be thankful to Dr. Killick Millard for his emphatic pronouncement as to the comparative frequency of their coexistence. I have myself seen within the past fortnight an undoubted instance of the coincidence of scarlatina and measles in the same patient. I was, however, under the impression that this was a condition of extreme rarity; but, upon looking up the matter, I found that it is by no means so uncommon. Osler, in his *Principles and Practice of Medicine*, 3rd edition, 1898, page 83, quoting F. F. Caiger, says: "Of 48,366 cases of scarlet fever in the Metropolitan Asylums Board hospitals which were complicated by some other disease, in 1,094 cases the secondary infection was diphtheria, in 899 cases chicken-pox, in 703 measles, in 404 whooping-cough, in 55 erysipelas, in 11 enteric fever, and in 1 typhus fever."

In my case the initial ailment was undoubtedly measles; the patient slept with his brother, who was suffering from uncomplicated measles. I saw him for four days before the appearance of the rash, when he presented every symptom of a child "sickening with the measles." His brother was at this time covered with a characteristic measles rash. When the eruption came out—which it did primarily on the face—it was at first sight distinctly "measly," but as it developed it became less typical. The catarrhal symptoms which one generally associates with measles were present to quite the usual extent; but besides there were a distinctly scarlatinal throat and tongue, with great delirium and intense prostration. The child desquamated very freely, and during desquamation the urine contained a considerable quantity of albumen, a few tube casts, but no blood.—I am, etc.,

MAURICE MCELLIGOTT, D.P.H., L.R.C.P. and S.I.

Belper, Jan. 22nd.

OBITUARY.

HENRY ALLEYNE NICHOLSON, M.D., F.R.S.,

Professor of Natural History, Aberdeen University.

IT is with the deepest regret that we announce the death of Professor Nicholson, of Aberdeen, which occurred on January 19th. Professor Nicholson's reputation among the leading palæontologists has for long been a most brilliant one. The *Manual of Palæontology*, by Nicholson and Lydekker, which reached its third edition in 1890, and was then so rewritten and enlarged as to be virtually a new book, is, perhaps, the published work by which he is best known. But with this we have the many editions of his *Manual and Text-book of Zoology*, besides nearly two hundred other original publications to bear witness to his untiring and important literary labour.

His early career as a student in the Medical School of Edinburgh and in the University of Göttingen had been exceptionally brilliant, and, with previous experience as a lecturer in the Natural History chairs at the Universities of Toronto, Durham, and St. Andrews, and for three sessions at Edinburgh as Sir Wyville Thomson's substitute, he came to Aberdeen in 1882 at the age of 38.

It is difficult to overvalue the effect he produced on students of medicine who of necessity, in the very earliest part of their course, came under his influence. Very few lecturers have had Nicholson's power of instilling interest in their subjects. Each lecture left an indelibly clear series of impressions on his hearers' minds; and they were not hearers only, for by his swift strokes his audience saw grow before them in the most charming lines the representation of his word pictures. "Nicholson's lecture hours pass too quickly," the students said.

He came as a Lecturer on Zoology; there was no obligation on him to lecture on geology, but as from 1892 that subject might be taken in the course for degrees in arts and in science, Nicholson, starting with small numbers, in a few years worked up the class to one of the largest in the University.

His aim was always to give his students a practical, living view of his subjects. Avoiding from the first the adoption of an exclusive "type system" of teaching, a fact which, a few years ago, implied no slight courage on the part of a lecturer on zoology, he trained his students in such a way that whatever line of special research in natural history they might choose to pursue, they should have a sound basis to start from, both in theoretical and practical methods of work. It was for this reason that by his own work and by that of assistants trained by him, he developed his practical classes in zoology and geology, both elementary and advanced, to the very highest standard of excellence, and by his own personal labour and generosity got together and classified materials which form perhaps the most useful working geological collection for students in the kingdom. For the same purpose he organised excursions to districts of scientific interest, so that those who wished to obtain knowledge of the methods of field work should have the benefit of his personal training.

But his influence in the University is only partially accounted for by his qualities as a teacher. He was the friend of every student, and every student felt it. The gulf between them and the professor, often so fixed, was never apparent in his classes. His geniality and his delightful sense of humour produced a feeling almost of intimacy between each student and himself, and yet never was teacher more respected, or, we believe, more beloved.

Of the grief his death causes among his colleagues and his friends we will not speak, and the loss which the University suffers cannot yet be realised; but for himself—he died in harness a week after completing a series of lectures—and all through his life, his work was a keen enjoyment and always the very best.

Sir ALFRED ROBERTS, M.R.C.S.

We regret to record the death of Sir Alfred Roberts, M.R.C.S.Eng., of Sydney, New South Wales. Some years ago he fractured his femur when alighting from a tramcar. Since then he has gradually failed in health, and died on December 19th, 1898, at his country residence at Wentworth Falls.

Alfred Roberts was born in London in 1823. He was the son of Mr. John Roberts of Finsbury Circus. He was educated at St. Paul's School, and was afterwards a student at Guy's Hospital. He obtained the diplomas of M.R.C.S. and L.S.A. in 1844, and after practising in Sussex for some years he went to Sydney in 1854. Very soon he was appointed Surgeon to the Sydney Infirmary—now the Sydney Hospital—and retained this appointment for eighteen years. It was during his tenure of this office that his attention was directed to the inefficiency of the nursing department, and on his advice Miss Nightingale was asked to select five nurses from her Home to proceed to Sydney to take up work in the Infirmary. He assisted in the establishment of the Hospital for Sick Children, and was one of its first surgeons.

His chief work was in connection with the Prince Alfred Hospital, which was founded as a public token of gratitude for the recovery of H.R.H. the Duke of Edinburgh, who had been the victim of an attempted assassination during his visit to Sydney. Sir Alfred Roberts visited England and the Continent of Europe to gather information on the designing and equipment of hospitals, and on his return to Sydney generously devoted a very large amount of time and thought to the building and equipment of this hospital, and continued to take the deepest interest in all that concerned the welfare of the institution up till last year, when failing health compelled him to retire from the honorary secretaryship, a post he had filled so well ever since the hospital was established. It was for his services in this connection that Her Majesty conferred upon him the honour of Knight Bachelor in 1883.

He was a member of the Board of Health, and Medical Adviser to the Government for some years, and Examiner in Surgery in the University of Sydney. His energies were also devoted to the welfare of other hospitals, and for several years he was Honorary Secretary to the Carrington Convalescent Hospital at Camden. One of the last, but not least important, of the services he rendered to Prince Alfred Hospital was the renovation of the operating theatre. To this, as to everything to which he put his hand, he devoted his whole energy, and his scrupulous attention to every detail resulted in the equipment of an operating theatre second to none in the Southern Hemisphere. Those who knew him best always recognised in him a courteous refined English gentleman, and the medical profession and the general public are the poorer for the loss of such an indefatigable worker in the cause of humanity.

JAMES CAPPIE, M.D.,

Edinburgh.

We regret to announce the death of Dr. Cappie, who at the time of his decease was one of the oldest and most respected members of the profession in Edinburgh. The sad event was somewhat unexpected, for he was seeing patients until within two days of his death. For a few weeks past he had been feeling indisposed, but death came suddenly during sleep from heart failure.

Dr. Cappie was born at Kirkfield Bank, near Lanark, in 1829. He was a member of a large family, only three of whom lived to grow up, and he survived them all. His early education was received at Lanark Grammar School. He then proceeded to Edinburgh University, where he graduated in 1850. For a time he was an assistant at Minto House Medical School, and then started on his own account, and soon attained a large practice, which he retained until his death.

In the department of Midwifery he was specially skilful, and his forceps with bayonet joint is well known in the profession. During a visitation of cholera he distinguished himself greatly by his intrepidity no less than by his success in treatment of many cases. For a time he held a parochial appointment, and was also visiting officer at the Poorhouse, but the calls of a large family practice led him to give up those appointments many years ago.

In every way Dr. Cappie was a model family doctor. He spared no pains to master his cases thoroughly, and his whole devotion was to his patients' interest.

In the literature of the profession he holds an honourable place. Among his works were: *On the Immediate Cause of Sleep*, 1854; *Essays on Medical Science*, 1859; *The Causation of Sleep*, 1872; *The Relation of the Cranial Contents to the Pressure of the Atmosphere*, 1874; *On the Balance of Pressure within the Skull*, 1879; *Some Points in the Physiology of Attention, Belief, and Will*, 1886; *Intracranial Circulation and its relations to the Physiology of the Brain*, 1890; *The Cerebral Capillary Circulation*, 1898. He also contributed to *Brain*, the *Monist*, and other periodicals. In all these writings he showed much thought and ingenious speculation on very recondite subjects. We understand that at the time of his death he was busy preparing another work on the same lines of thought. His views were not generally accepted by physiologists of the present day, but he was always able to take his own part and break a lance in defence of what he believed to be the truth.

At one time he gave some attention to chess, and was President of the Philosophical Institution Chess Club in 1876-1877. So skilful did he become in the game that he was one of the players selected to encounter the champion of that day—Mr. Blackburne—in a tournament. He got into a very strong position, and had a good chance of winning, but an unfortunate slip cost him the game.

Dr. Cappie was twice married, and is survived by a widow, two sons, and six daughters. His funeral, which was to the Grange Cemetery, was attended by a large concourse of sorrowing patients and friends.

THOMAS COLE, M.D., F.R.C.P.,

Late Physician, Royal United Hospital, Bath.

We regret to record the death of Dr. Thomas Cole, which occurred at his residence, 18, The Circus, Bath, on January 15th. Dr. Cole began his medical education at St. Bartholomew's Hospital, where he carried off the senior scholarship and was double Wix and Bentley prizeman. In 1866 he passed the Final M.B. Examination at the University of London with first class honours, proceeding to the M.D. in 1868. He joined his uncle, Mr. Skeate, at Bath, and very quickly acquired an extensive and lucrative practice, his opinion being frequently sought in the counties of Somersetshire, Wiltshire, and Gloucestershire. In 1871 he was elected Physician to the Royal United Hospital, a position which he held for twenty-seven years, only resigning it when the condition of his health made it necessary in 1898. The year after his appointment to the hospital he became a Member of the Royal College of Physicians, and in 1888 he was elected a Fellow.

Dr. Cole was essentially a busy man, and when not engaged in professional work spent much time in superintending the education of his two sons and daughter. And he was well repaid; both boys did well at Bath College, and then the elder gained a scholarship at Christ Church, Oxford, and is now following in his father's footsteps at St. Bartholomew's Hospital; whilst the younger proceeded to Balliol College, gaining the Ireland and two other University scholarships.

As a hospital physician Dr. Cole was seen to great advantage. He seemed intuitively to make a quick, but accurate, diagnosis, which further investigation generally confirmed in every particular. His knowledge of drugs was extensive, and he was a firm believer in their efficacy. There was always a strong bond of attachment with his patients, whether hospital or private, and he was a great favourite with children. His gentle nature and sympathetic voice were no mere mannerisms, but proceeded from a heart that genuinely felt for others' woes. That such a man was beloved in the family circle it is needless to say, and, though now he is lost to the home, his memory will ever be cherished by those he has left behind.

About two years ago his health began to fail, and he became a frequent sufferer from gout and asthma; nevertheless, he continued to practise until a week or two before his death. On Sunday, January 15th, intestinal hæmorrhage came on at 2 P.M., and he was unconscious till 6 P.M., when he died, at the comparatively early age of 53.

JOHN MEABURN BRIGHT, M.D., M.R.C.S., L.S.A.

BY the death of Dr. Bright, of Forest Hill, on January 11th, the profession has lost a general practitioner of the best type, and a man of singular devotion to duty and integrity of character. Suddenly snatched away at the age of 65, in the midst of active work, he has left among his patients and colleagues a memory that will long be cherished as that of a most useful life and a strong and attractive personality.

The son of Dr. Richard Bright, of South Audley Street, Mayfair, and afterwards of Hobart Town, Tasmania, and the grandson of the Rev. John Bright, of Skeffington Hall, Leicester, Prebendary of Salisbury, Dr. Bright was born in 1833. Educated at Rossall with a view to his entering the Church; he changed his mind, and began the study of medicine at Queen's College, Birmingham, where he took many prizes. He afterwards studied at Guy's Hospital, where he had a distinguished career, and attracted the attention and gained the friendship of Dr. Addison. He became Licentiate of the Society of Apothecaries in 1857, and a Member of the Royal College of Surgeons of England in 1859, and in 1862 he obtained the M.D. degree at St. Andrews with honours. He was assistant to the late Dr. Ray, of Dulwich, for a time, and afterwards House-Surgeon to the Surrey County Hospital at Guildford. In 1863 he settled in practice at Forest Hill, where he speedily established a wide reputation. Of untiring energy and devoted to his profession, Dr. Bright was one of the founders of the Sydenham District Medical Society, of which he was recently President. To him was also due the foundation of the Provident Dispensary at Forest Hill. He was a Vice-President of the British Medical Benevolent Fund after serving for several years on its Committee. With active interests alike in politics, in literature, and in the drama, he held the strongest religious convictions, and devoted much of his leisure to the study of theology, the fruits of which were given to the world in several anonymous volumes of commentary on the Scriptures. To medical literature he contributed a "Report to the Medical Officer of the Privy Council on the Sanitary Condition of Forest Hill, 1864-70;" a paper (in conjunction with Dr. J. Harley) on Some Cases of Deranged Innervation consequent on Diphtheria published in *Virchow's Archiv*, 1862, etc. He was the Editor of the "Report on Midwifery and Diseases of Women and Children" in the *Yearbook of the New Sydenham Society*, 1863-4.

Dr. Bright was twice married. He died suddenly of cardiac syncope. He had seen patients in the morning, and passed away in the afternoon.

One who knew him well writes: Every Guy's man knew Bright of Forest Hill, and his distinguishing features were his downright integrity and his scorn for all that was not strictly straightforward. He was warmhearted to a degree, and had a heart open as the day to melting charity. If to live a laborious and most useful life and to die suddenly in the midst of the active work of the happiest period of a long life be accounted happiness, he was certainly happy and also *felix opportunitate mortis*.

SURGEON-GENERAL JAMES MACBETH, a veteran officer of the Army Medical Service, died recently in Rome, aged 82. He studied in Edinburgh, and took the diploma of Licentiate of the Royal College of Surgeons in 1840. He entered the army in 1841 as Assistant Surgeon, 10th Foot, with which regiment he served in the Sutlej campaign of 1845-6, and at the great battle of Sobraon (medal and clasp); he served further in the Punjab campaign of 1848-9, including the siege of Mooltan, and various other operations (medal and clasp). He subsequently became Surgeon of the 74th Highlanders, the 10th Hussars and 16th Lancers; was promoted Deputy-Surgeon-General in 1870, and retired with the rank of Surgeon-General in 1877. Surgeon-General Macbeth was a good type of the old regimental surgeon, an order now rapidly passing away.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. Konstantinos Boussakis, Professor of Physiology in the University of Athens; Dr. Larrieu, Surgeon to the French Hospital, Constantinople; and Dr. R. F. Klaus, Professor of Zoology in the University of Vienna, aged 63.

ROYAL NAVY AND ARMY MILITARY SERVICES.

ARMY MEDICAL STAFF EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

A **FIELD OFFICER**, who has done half tour in Malta, wishes to exchange home for full tour. Apply Asthma, care of Holt and Co., 3, Whitehall Place, London, S.W.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: **DANIEL J. P. MCNABB**, Staff-Surgeon, to the *Northampton*, January 13th: **JOHN A. KEOGH**, B.A., M.B., Surgeon, to the *Calliope*, January 13th; **ERIC D. MACNAMARA**, B.A., Surgeon, to the *Jupiter*, January 13th; **ARTHUR A. J. MCNABB**, M.B., Surgeon, to the *Sans Pareil*, January 27th; **NORMAN L. RICHARDS**, Surgeon, to the *Northampton*, additional, for the *Curaçoa*, January 27th; **SAMUEL H. FACEY**, Surgeon, to the *Diadem*, January 27th; **REGINALD WATERFIELD**, Surgeon, to the *Diadem*, January 24th.

Staff-Surgeon **JOHN B. B. TRIGGS**, M.B., has been promoted to be Fleet-Surgeon, January 10th. He was appointed Surgeon, September 29th, 1877, and Staff-Surgeon twelve years thereafter. He had medical charge of the *Active* during the Zulu war in 1879, and has the South Africa medal.

ARMY MEDICAL SERVICE.

SURGEON-GENERAL W. S. M. PRICE has been selected for the post of Principal Medical Officer in Egypt to succeed Surgeon-General H. S. Muir, who is to be appointed Deputy Director-General, Army Medical Service, *vice* Surgeon-General W. Taylor, who becomes Principal Medical Officer in India.

Colonel J. **FRASER**, M.D., has been appointed Principal Medical Officer, North-Western District, at Chester.

Lieutenant A. C. **LUPTON** has been selected for appointment to the Coldstream Guards as an attached Medical Officer.

Captains G. S. **MCLOUGHLIN** and J. D. **FERGUSON** have been made Companions of the Distinguished Service Order in recognition of their services during the recent operations in Uganda.

Lieutenant **GEORGE S. NICKERSON**, M.B., is seconded for service with the Egyptian army, December 29th, 1898.

INDIAN MEDICAL SERVICE.

IT has been officially notified in India that Surgeon-General R. **HARVEY**, C.B., D.S.O., M.B., Bengal Establishment, has been confirmed in his appointment as Director-General of the Indian Medical Service, from October 25th, 1898.

The officers of the Indian Medical Service who may in future be placed in charge of the Imperial Service Troops proceeding on service are to receive extra remuneration from Rs. 85 a month downwards. These orders are to have retrospective effect, so as to cover any cases which may have occurred in the frontier operations of 1897-98.

Brigade-Surgeon-Lieutenant-Colonel **HUGH JOHNSTONE**, late Indian Medical Service, died at 4, Lennox Mansions, Southsea, on December 11th, 1898. He was until his retirement Senior Civil Surgeon of Rangoon, Medical Officer for the State Railway of Burmah, Port Health Officer at Rangoon, etc. He retired last year after fifty years' eventful service in India and Burmah, but chiefly in the latter. Colonel Johnstone took a high position in the examination for the Indian Medical Service. He was first appointed to the Bengal Presidency, but in May, 1863, he proceeded to Bombay, where he was House-Surgeon and Physician to the Medical College Hospital. He was then transferred to the interior of Burmah.

THE VOLUNTEERS.

SURGEON-LIEUTENANTS E. J. G. BERKLEY, 4th Battalion the Queen's (Royal West Surrey Regiment), and J. S. Y. **ROGERS**, M.B., 1st (City of Dundee) Volunteer Battalion the Black Watch (Royal Highlanders), are promoted to be Surgeon-Captains, January 25th.

Mr. **CHARLES J. MARTIN**, M.B., is appointed Surgeon-Lieutenant in the 4th Volunteer Battalion the East Surrey Regiment, January 25th.

Surgeon-Captain A. J. McD. **BENTLEY**, M.D., 13th Middlesex (Queen's Westminster) Rifles, has resigned his commission, January 25th.

THE BRITISH TROOPS IN CANDIA.

A **DESPATCH** is published in the *London Gazette* from Major-General Chermside, commanding the British troops in Candia, reporting the services of the officers and others present at the attack on the British troops in September, 1898. "The infantry (says the despatch) called on to defend themselves, with the assistance of other detachments, against this sudden, general, and treacherous attack, all belonged to the 1st Battalion Highland Light Infantry, and behaved in a manner worthy of the traditions of this distinguished corps." Among those singled out for special mention are the following members of the Royal Army Medical Corps: Lieutenants L. Addams-Williams and T. H. M. Clarke (wounded), and Privates D. Philemon, G. H. Lowden, G. Leggatt, and G. Biddiscombe wounded).

MEDICO-LEGAL.

A "CRIMSON CROSS DISPENSARY" AND ITS REMEDIES.

AN inquest was held at the Guildhall, Derby, on January 2nd, on the body of John Henry Booth, aged 3 years. According to the report in the *Derby Daily Telegraph*, it appeared from the evidence of the mother that the deceased had frequently complained of headache, and on the Thursday preceding the death he said it ached very much, and she gave him some castor oil. On Friday she rubbed his head with some ointment that Captain Fielden gave her. She did not know who Captain Fielden was, but he came round sometimes to look at children. She went to his place in Otter Street on the Friday, and he called at her house in the evening. When she called at the office she was told it was closed, but the young lady there asked for her name and address. She did not tell her the child was ill, or ask that Captain Fielden might come. He, however, called at the house on Friday night, and looked at the child, put his hand on its head, and said she might rub it with a little ointment which he brought with him. He called the following day to see the child, but it was dead. He appeared surprised, and inquired if she had sent for a doctor. She informed him that she had sent for Dr. Spettigue, but he said the child died from convulsions. She did not ask Captain Fielden for a certificate. When he came on the Saturday morning he gave her some medicine for *another* child older than the deceased; this medicine he had with him. She did not know whether Captain Fielden was a qualified doctor, but she knew he had been to see other children in the neighbourhood, and prescribed and gave medicine to children of various people. At the house in Otter Street the word "Dispensary" was on his window.

Captain Fielden, in his evidence, stated that he was a retired captain of the Scots Fusiliers, having retired about 1874. In reply to the Coroner, witness said he amused himself by doctoring anyone, examining and prescribing for children and adults in the ordinary way. He made no charge either for visits or remedies. The physic was made up at the dispensary in Otter Street, which belonged to Miss Walmsley. There was no poison in the medicine, though there was a little in the ointment. He would give certificates for death or burial if the coroner would permit him, but prior to this one there had not been any deaths in the cases he had attended. He admitted having looked at the child's head, passed his hand over it, and gave the mother some ointment to rub on, and told her to send to the dispensary for some medicine the next day. No one having come the next day he went round and left some medicine for the elder child that was sickening for typhoid fever. He did not report cases of infectious disease. Qualified men, he added, were not allowed to use good remedies like he did; it would be against medical etiquette. He felt himself competent to attend these cases. He cured 98 per cent. of his small-pox cases at Gloucester, when the doctors were losing 55 per cent. of theirs. He had cured a great many cases which had been discharged from hospitals and infirmaries as incurable.

Dr. Spettigue gave evidence that the cause of death was primarily water on the brain, and secondly convulsions.

The Coroner in summing up said it was quite clear from Captain Fielden's own evidence that however dangerous cases might be he attended people, examined them, and prescribed for them, and actually kept a dispensary in Otter Street and he claimed that he was fully qualified to diagnose cases. Personally he, the Coroner, had yet to learn that any person not a duly qualified medical practitioner had a right to take upon himself such a serious responsibility as Captain Fielden had, or that the law gave him power to undertake the treatment of cases which required the greatest medical skill. Under the circumstances he thought it was the duty of the proper authorities to take some notice of this case and particularly the evidence of Captain Fielden himself, because he could not conceive a more dangerous practice than that of an unqualified person attempting to attend adults and children suffering from very severe diseases, including typhoid fever. He felt it his duty to send a copy of the depositions to the proper authorities before whom he should place all the facts and if they felt it desirable for the protection of the public they would no doubt take the necessary steps.

In reply to the foreman of the jury, Captain Fielden said he considered Miss Walmsley was quite qualified to make up their medicines. She was a specialist, though the only experience she had had was that because of an affliction—a diseased hip—she had attended various hospitals. Miss Walmsley was in the habit of attending patients out of town, and received them at the dispensary.

In answer to the Coroner, witness stated that there was a Miss Edge also at the dispensary. The dispensary was kept up through the remedies being sold to chemists and by subscription. A charge was made on lady patients on Wednesdays. Witness said he simply went there to attend his other patients, as a doctor would go to the infirmary. Miss Walmsley was one of the cured patients.

Replying to the jury, the "Crimson Cross" remedies were proprietary medicines. Paying days were on Wednesdays. Witness did not know of his own personal knowledge, but he was told so by Miss Walmsley, who had a banking account.

The Coroner: Do you directly or indirectly receive any money from this dispensary, which is called the Temperance Dispensary, the Crimson Cross Dispensary, and Mr. Fielden's Dispensary?

Witness: No, none whatever. I do not get any money from either.

The jury returned a verdict in accordance with the medical testimony, leaving any further action in the hands of the Coroner. The jury added that it was a matter of great importance to the public, and it was necessary that an exhaustive inquiry should have been made.

CORONER AND MEDICAL WITNESS.

MEMBER (Bristol) complains that, without *post-mortem* examination, and not having seen the deceased for months, and not since death, he is called upon to give evidence as to the cause of death, and that when the question of a special visit to examine such body externally after death is raised, the coroner observes that the fee of one guinea paid for giving evidence includes visiting and examining the body. Has the coroner, he asks, power to allow a special fee for so doing?

⁂ The only fees to medical witnesses the coroner can pay are those prescribed by the Coroners Act, 1887, which provides one guinea for a *post-mortem* examination, if ordered by the coroner, and one guinea for giving evidence. There is no fee allowable for external inspection of the body after death, and when such cases occur as described by our correspondent, all the evidence he can give is concerning his previous knowledge of the deceased, and an account of any ailments for which he may have attended him recently or on the last occasion. The deceased man in the present instance was about 80 years of age, and in the absence of any evidence to the contrary, the jury would probably be satisfied with the general evidence and the previous history given by the medical man, and come to the conclusion that the deceased died from natural causes, though if a *post-mortem* examination had been ordered a more correct and satisfactory verdict would have been arrived at. As regards the fee of one guinea for giving evidence, that does not include any other service rendered by the medical witness except that mentioned in the Act.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

BENEFACTIONS.—The Vice-Chancellor publishes a list of donations to the Benefaction Fund received during the past six months. They amount to £2,530, and include about £400 specially assigned to the rebuilding of the medical school. Lord Iveagh contributes £1,000 to the general fund.

DEGREES.—At the Congregation on January 19th, Mr. E. A. R. Newman, B.A., of Caius, was admitted to the M.D. degree; Mr. C. R. Reissmann, B.A., of St. John's, to the M.B. and B.C. degrees; and Mr. E. C. Taylor, B.A., of St. John's, to the B.C. degree.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following gentlemen passed the Preliminary Science Examination in Chemistry, Physics, and Practical Chemistry: S. Clifford, Birkbeck Institute, and R. W. Craig, Wyggeston School, Leicester. Two gentlemen were referred back to their professional studies for three months.

SOCIETY OF APOTHECARIES OF LONDON.

PASS LIST, January, 1899.—The following candidates passed in:

Surgery.—F. M. Aldred, Liverpool; R. L. Argles, St. Mary's Hospital; H. H. Cotman (Section II), Aberdeen and London Hospital; K. Grube, Bonn; R. R. Mowll (Section I), King's College Hospital; A. Robinson, Leeds; S. Southam, Westminster Hospital; L. K. Tickner, Durham; H. Whittaker, Cambridge; C. H. Williams, St. Bartholomew's Hospital.

Medicine.—R. R. P. S. Bowker, Middlesex Hospital; A. E. Freer, Edinburgh and St. Mary's Hospital; S. H. Longhurst, Guy's Hospital; D. V. Lowndes (Section II), Westminster Hospital; G. S. Moore, London Hospital; R. R. Mowll (Section I), King's College Hospital.

Forensic Medicine.—R. R. P. S. Bowker, Middlesex Hospital; R. R. Mowll, King's College Hospital; L. Liebster, Vienna and London Hospital.

Midwifery.—H. C. Cooper, St. George's Hospital; H. R. Cross, Leeds; H. Fawcett, Cambridge and London Hospital; E. J. Gruchy, London Hospital; W. M. McLoughlin, University College Hospital; C. G. Meade, St. Bartholomew's Hospital; C. H. St. M. W. Toke, St. George's Hospital; H. E. Weston, St. George's Hospital.

The diploma of the Society was granted to Messrs. F. M. Aldred, R. L. Argles, H. H. Cotman, E. J. Gruchy, and A. Robinson.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,875 births and 3,979 deaths were registered during the week ending Saturday last, January 21st. The annual rate of mortality in these towns, which had been 19.1 and 18.3 per 1,000 in the two preceding weeks, further declined to 18.2 last week. The rates in the several towns ranged from 13.7 in Derby, 13.8 in Burnley, 14.4 in Leicester, and 15.1 in Croydon to 22.4 in Halifax, 22.6 in Preston, 23.0 in Gateshead, and 26.6 in Swansea. In the thirty-two provincial towns the mean death-rate was 18.8 per 1,000, and exceeded by 1.6 the rate recorded in London, which was 17.2 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.7 per 1,000; in London the rate was equal to 1.5 per 1,000, while it averaged 1.9 in the thirty-two provincial towns, among which the highest zymotic death-rates were 3.0 in West Ham, in Portsmouth, in Swansea, and in Manchester, 3.1 in Preston, 3.5 in Huddersfield, and 5.0 in Nottingham. Measles caused a death-rate of 1.6 in Manchester, 2.0 in Huddersfield, 2.2 in Nottingham, and 2.4 in Gateshead; whooping-cough of 1.3 in Bristol, 1.5 in Swansea and in Huddersfield, 1.7 in Nottingham, and 1.8 in Birkenhead; and "fever" of 1.3 in Bolton and in Preston, and 1.8 in Burnley. The mortality last week from scarlet fever showed no marked excess in any of the large towns. The 68 deaths from diphtheria in the thirty-three towns included 30 in London, 5 in Liverpool, 4 each in West Ham, Portsmouth, Leicester, and Sheffield, and 3 each in Birmingham and Leeds. No fatal case of small-pox was registered during the week under notice, either in London or in any of the thirty-two large provincial towns; and only one small-pox patient was under treatment in the Metropolitan Asylums Hospitals on Saturday last, January 21st. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had declined from 2,939 to 2,777 at the end of the three preceding weeks, had further fallen to 2,749 on Saturday last; 249 new cases were admitted during the week, against 225, 291, and 220 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, January 21st, 954 births and 649 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had increased from 18.2 to 21.7 per 1,000 in the three preceding weeks, declined to 21.3 last week, but was 3.1 per 1,000 above the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 15.5 in Leith and 17.5 in Greenock to 22.4 in Glasgow and 23.5 in Dundee. The zymotic death-rate in these towns averaged 3.1 per 1,000, the highest rates being recorded in Greenock and Aberdeen. The 316 deaths registered in Glasgow included 2 from measles, 4 from scarlet fever, 2 from diphtheria, 15 from whooping-cough, and 4 from "fever." Six fatal cases of measles and 12 of whooping-cough were recorded in Edinburgh; 2 deaths were referred to diphtheria in Dundee, 2 in Paisley, and 2 in Greenock; and 6 deaths from measles occurred in Aberdeen.

SCIENTIFIC PREVENTION OF YELLOW FEVER.

In a paper in a recent issue of the *North American Review*, Dr. A. H. Doty, Health Officer of the Port of New York, states that quarantine, without a wholesale remedy of local sanitary defects and deficiencies, cannot be alone depended on to prevent the introduction or extension of yellow fever, for, after it is removed, the locality is just as susceptible to the disease as ever. He lays stress on the fact that no other place in the world offers such a menace to the public health of America as the Cuban seaports—notably Havana, where may be seen what he terms "the degradation of sanitary science." Dr. Doty finally alludes to the need of a National Health Bureau or Department, which shall not only have general supervision over quarantine matters, but shall also have jurisdiction over sanitary matters in the interior, which is even more important. This feeling has found expression in a Bill introduced in the United States Senate last winter by the Hon. John C Spooner. It is the intent of this Bill to establish a department which shall be sufficiently broad in its scope to have general supervision over health matters throughout the United States, both at the coast and in the interior. It has no aim to obstruct or interfere with local health officers in the proper performance of their duties, but to assist and co-operate with them, and to harmonise their action, and to instruct and thus gain public confidence. The value of such a department is self-evident, and it is stated that "there is reason to believe that during next session of Congress the Bill referred to will again receive serious and proper consideration." Let us hope it will soon become law.

ST. GEORGE, SOUTHWARK.

There has just been issued the annual report of the Vestry of St. George-the-Martyr, Southwark, for the financial year ended on March 25th last, and included in the volume is the report of Dr. Waldo, M.O.H., for the calendar year 1897. The former report bears date, July, 1898, whilst that of Dr. Waldo is dated February, 1897 (presumably 1898 is intended). It is a pity the publication of the report of the medical officer should be delayed for more than twelve months after the close of the year. The birth-rate, 35.0 per 1,000 persons living, in 1897 considerably exceeded that of London, and was 4.4 above that of the 33 great towns. The death-rate of 23.2 per 1,000 living was exceeded by only four London sanitary districts. It was 28.6 in the Borough Road subdistrict of St. George, though even that was below the average of the preceding six years. The zymotic death-rate of 4.3 per 1,000, which vied with Limehouse in heading the list of London districts, was opposed to 2.6 in the metropolis as a whole, and 2.9 in the 33 great towns. The infantile mortality was 189 per 1,000 registered births, as against 159 in London. It was 203 in the Kent Road division. Diarrhœa accounted for 1,482 deaths. The conditions which favour this disease in St. George are polluted soil and air, crowding in houses and on area, filth nuisances, and uncontrolled dairies. The mortality from measles, diphtheria, and of children generally have exercised Dr. Waldo, but we feel that we are dealing with ancient history in his comments on these and other matters. His general and special reports are of interest and importance, especially those having concern with insanitary areas and house property, and on the whole give evidence of a large amount of good work in progress.

THE VITAL STATISTICS OF KENSINGTON IN 1898.

The statement which Dr. Orme Dudfield issues in the opening days of each year as to the vital statistics of the parish of Kensington during the preceding twelve months is a procedure which is deserving of praise in its highest form—imitation. The detailed annual reports of metropolitan health officers are often so long delayed as to make an early presentation of data more than usually valuable. Dr. Dudfield puts forward his figures in a shape which renders it possible for the vestry to make use of them at once. Especially is this the case at Kensington, because monthly reports are issued, each covering the whole range of current sanitary administration. The data for the parish, which has a population of 172,000, show a birth-rate of 29.4 per 1,000 persons, considerably below that of London as a whole, and ranging in the various divisions of the parish from 10.7 to 38.7 per 1,000 living. The death-rate, 16.3 per 1,000, was 2.3 below that of London generally, and ranged from 8.6 to 31.0 per 1,000 in the six sanitary districts of the parish. The rate of infantile mortality showed a rise over recent years, being 180 per 1,000 registered births, as against 167 in the metropolis. It ranged in Kensington sanitary divisions between 101 and 253 per 1,000 births. The zymotic death-rate of 2.0 per 1,000, as opposed to 2.34 in the metropolis, showed equally great divergence in the different populous divisions of the parish, namely, 0.7, 0.8, 1.5, 1.9, 3.9, and 4.9 respectively. Scarlet fever showed decrease as regards both cases and deaths, and diphtheria showed even more marked decline as regards amount and fatality, both as to death-rate and case mortality, the latter being about the lowest on record, namely, 11.7 per cent. Typhoid fever cases were fewer than in 1897, whilst the deaths from that disease were fewer than in any year since 1887. Generally speaking, the health data of Kensington are marred by two districts in its constituent divisions, namely, the North, with a population of 33,350, and the North-West with its estimated 16,850 persons.

PLYMOUTH WORKHOUSE INFIRMARY.

More than four years ago our Special Commissioner recommended the building of a new infirmary, and remarked: "These buildings were erected at a time when the needs of the sick were not so well understood, and they cannot be adapted without an unnecessary expenditure of service and labour, which makes the working extravagant" (British Medical Journal, September 8th, 1894). On January 17th, according to the *Western Morning News*, the same question was under the discussion of the Board. An inelastic building is the problem; it met the needs of the population in the last century, but it has been over and over again found wanting at the present date. The guardians were well advised by Mr. Preston Thomas, the inspector, to face the situation and build a new infirmary. From the reports which were laid before the Board, the overcrowding is now positively dangerous. The medical officer has insisted over and over again in his reports on the need of a suitable infirmary for the sick, the public press has been urging the same, and now the hapless and helpless poor crowded in beds on the floor, or in at least one instance placed two in a bed in a wretched room never intended for a ward, cry with a voice which cannot be hushed. Mr. Thomas says, "Public opinion would not tolerate the sort of overcrowding and inadequate accommodation for the sick poor that they now had," and we trust that the ratepayers of Plymouth will bestir themselves to wipe away this reproach from their beautiful town.

INCREASE OF SALARY OF MEDICAL OFFICER OF HEALTH.

We are glad to notice that at a recent meeting of the Sheffield City Council it was resolved to increase the salary of Dr. Robertson, medical officer of health, from £500 to £600.

PROPOSED CENTRAL FUND FOR THE SUPERANNUATION OF POOR-LAW MEDICAL OFFICERS.

At a meeting of the Council of the Poor-law Medical Officers' Association the subject of a central fund for the payment of superannuation expenses came under discussion. It was unanimously resolved:

That the present system of making each union responsible for its own, and other, superannuation expenses was likely to lead to serious grievances; that it would inevitably result in preventing increase of Poor-law officers' salaries under any ordinary circumstances, and altogether hinder the appointment to a Poor-law office of any man of advanced years, however competent, and would be fatal to the chance of a Poor-law officer once losing his office again obtaining an appointment.

That this would be avoided by the formation of a central or common fund out of the contributions deducted under the present Act from the salaries of Poor-law officers.

LUNACY LAWS.

Dr. Cook (Torquay) writes to call attention to the fact that magistrates often refuse to sign an order for admission to an asylum where a medical certificate of lunacy has been given.

⁂ This is an example of the defective condition of the lunacy laws, which gave the magistrates this power of deciding the question of lunacy. Homicidal acts have in several instances resulted from this provision, and all such recurrences should be reported. The only action that the medical officer can take is to fulfil the duty entailed on him (by Section xiv), and give notice to the relieving officer again and again. Both relieving officer and magistrates are bound to comply with such a notice, and to inquire again and again into the case.

MEDICAL NEWS.

Mr. A. T. MacConkey, B.A., M.B., B.C.Cantab., D.P.H. Camb., has been appointed Assistant to the Bacteriologist of the Royal Commission on Sewage Disposal.

The Duchess of Albany opened on January 20th the new Nurses' Home of the Chelsea Hospital for Women, and subsequently paid a visit to the hospital.

At the meeting of the Board of Delegates of the Hospital Saturday Fund held on January 21st, it was resolved that the sum of £17,930 16s. 5d. should be distributed among the 173 participating institutions.

West London Medico-Chirurgical Society.—The annual dinner of this Society will be held on Wednesday, February 8th, at the Trocadero Restaurant, Piccadilly, W., at 7.30 P.M. The President, Dr. S. D. Clippingdale, will preside.

At the examinations held this month by the Institute o Chemistry 11 candidates passed the final examination for th Associateship in various branches, 9 passed the intermediat examination, and 3 the practical examination for the Associateship, under the old regulations.

AMONGST the latest contributions to the Prince of Wales's Hospital Fund for London are the following: The Fishmongers' Company, £1,000; Lord Grimthorpe, £100.

THE fifth course of public lectures, to be given under the auspices of the Childhood Society, will be delivered on January 31st, February 21st, and March 28th, at the Sanitary Institute, Margaret Street, W., at 8 P.M. on each day. The first lecture will be delivered by Dr. Francis Warner, who has chosen for his subject Mental Abilities and Disabilities of Children.

THE will of Dr. William Munk, the late Harveian Librarian of the Royal College of Physicians, who died on December 20th, 1898, aged 82, has been proved, the personal estate being valued at £9,369 16s. 1d. He bequeaths to Cardinal Vaughan a bust of Cardinal Wiseman, in the hope that it may be regarded as corporate property of the Archdiocese.

MEDICAL EXAMINATION OF TEACHERS IN NEW YORK.—The New York Board of Education has appointed for the whole city of New York 19 physicians (among whom is one woman), whose duties will be to examine teachers, who are now required to produce certificates of sound health before they are allowed to teach. Heretofore the teachers had to pay the physician's fee for examination; hereafter, however, the applicant may consult any one of the appointed physicians free of charge, and the Board of Education will pay three dollars for each examination.

APPOINTMENTS UNDER THE WORKMEN'S COMPENSATION ACT.—The following gentlemen have been appointed by the Home Secretary to act as medical referees under the Workmen's Compensation Act. *England:* Dr. Thomas W. Thursfield (Leamington) for County Court Circuit No. 22; Mr. Alfred Owen Davies (Machynlleth) and Mr. Horace Allan Debenham (Presteign) for County Court Circuit No. 28; Dr. H. Muir Evans (Lowestoft), for County Court Circuit No. 33, in lieu of Dr. C. H. Graham, resigned; Mr. Robert Bruce (Milford-on-Sea) for County Court Circuit No. 55. *Ireland:* Dr. Thomas Joseph Moore (Ardee) for County Louth; Dr. Benjamin Lane (Limavady) for Londonderry, in lieu of Dr. D. J. Browne, resigned.

PRESENTATION TO MR. ALFRED COOPER.—The retirement of Mr. Alfred Cooper from the staff of St. Mark's Hospital, with which he has been connected for thirty-four years, was not permitted to take place without some recognition on the part of his many friends belonging to the institution. Accordingly on January 25th, he was presented at the house of Mr. Swinford Edwards with a Chippendale clock and a silver cigarette box, subscribed for by some members of the Committee of the hospital, his colleagues, and old house-surgeons. Upon the clock was a suitable inscription in commemoration of the occasion. Mr. Edwards, in making the presentation, alluded to the immense amount of human suffering which Mr. Cooper must have relieved during his long term of office, and pointed out how much of the financial prosperity of the hospital had been due to Mr. Cooper's influence. He further stated that Mr. Cooper's success and popularity were well known, the latter being largely due to his natural unselfishness, geniality, and sincere love for his fellow men.

VISITING MEDICAL OFFICERS OF WORKHOUSES.—Some time ago it was announced that the Bradford Board of Guardians intended to appoint two consulting physicians as visiting medical officers to the workhouse infirmary. We are informed that great exception was taken to this on behalf of the profession generally in Bradford, on the ground, as we understand, that the class of cases to be treated were such as usually come under the care rather of the general practitioner or surgeon than of physicians. The infirmary contains a lying-in department and a lock ward, and a large number of the cases are ulcers of the leg, hæmorrhoids, bladder disorders, and cases requiring minor operations. In consequence of the strong expression of feeling by a large proportion of medical practitioners in Bradford and the neighbourhood, the two physicians, Dr. Crowley and Dr. Campbell, physicians to the Bradford Infirmary, who had, we are informed, been understood to be willing to accept the appointment at the workhouse, have declined, and the guardians have decided not to proceed further in the matter. The salary intended to be attached to the appointments was, it is stated, £100 a year.

MEDICAL VACANCIES.

The following vacancies are announced :—

BELFAST DISTRICT ASYLUM.—Assistant Medical Officer, unmarried, and not to exceed 32 years of age. Salary, £100 per annum, and £50 in lieu of rations with furnished apartments, fuel, light, washing, and attendance. Applications to the Medical Superintendent by February 11th.

CANCER HOSPITAL, Fulham Road, S.W.—House-Surgeon. Appointment for six months. Salary at the rate of £50 per annum, with board and residence. Applications to the Secretary by February 4th.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—Pathologist. Applications to the Secretary by February 6th.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Pathologist. Salary, 100 guineas per annum. Applications to the Secretary by February 3rd.

EDINBURGH ROYAL ASYLUM.—Fourth Assistant Physician; also Resident Clinical Clerk. Applications to Dr. Clouston, Physician-Superintendent.

HASTINGS, ST. LEONARDS, AND EAST SUSSEX HOSPITAL.—House-Surgeon. Salary, £75 per annum, with board, residence, and laundry expenses. Applications to the Secretary by February 1st.

HUDDERSFIELD INFIRMARY.—Junior House-Surgeon. Salary, £40 per annum, with board, lodging, and washing. Applications to the Secretary by February 9th.

LEICESTER INFIRMARY.—Assistant House-Surgeon. Honorarium of £42 a year, with board, residence, and washing. Applications to the Secretary, 24, Friar Lane, Leicester, by February 13th.

LIVERPOOL: TOWNSHIP OF TOXTETH PARK.—Senior Assistant Medical Officer of the Workhouse and Infirmary. Salary, £100 per annum, with board, washing, and apartments. Applications, marked "Assistant Medical Officer," to the Clerk of the Guardians, 15, High Park Street, Liverpool, by February 1st.

LIVERPOOL SCHOOL OF TROPICAL DISEASES (University College, Liverpool, and the Liverpool Royal Southern Hospital).—Lecturer in Tropical Diseases at University College. Will also be appointed Honorary Consulting Physician to the Royal Southern Hospital. Salary, £250 a year and proportion of students' fees. Applications to Professor Boyce, University College, Liverpool, by February 27th.

LONDON LOCK HOSPITAL, 91, Dean Street, Soho, W.—Anæsthetist to the Male Hospital. Applications to the Secretary, Harrow Road, W., by February 4th.

MANCHESTER CLINICAL HOSPITAL FOR WOMEN AND CHILDREN.—Honorary Pathologist. Applications to the Secretary, 38, Barton Arcade, Manchester, by January 31st.

NATIONAL ORTHOPÆDIC HOSPITAL, 234, Great Portland Street, W.—Surgeon's Registrar. Applications to the Secretary by February 11th.

NOTTINGHAM GENERAL HOSPITAL.—House-Physician. Salary, £100 per annum, rising to £120. Applications to the Secretary by January 31st.

MORPETH DISPENSARY.—House-Surgeon. Salary, £170 per annum, with furnished rooms, coal, and gas. Applications to Mr. N. T. Wright, Honorary Secretary, Beechfield, Morpeth, Northumberland, by February 16th.

NORTH LONDON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Mount Vernon, Hampstead.—Resident Medical Officer. Appointment for one year. Applications to the Secretary at the Offices, 41, Fitzroy Square, W., by February 4th.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—Assistant to House-Surgeon. Appointment for six months. Honorarium, £20, with board, lodging, and washing. Applications to the Secretary by February 7th.

PLAISTOW: ST. MARY'S CHILDREN'S HOSPITAL.—Assistant Resident Medical Officer. Appointment for six months. Salary at the rate of £50 per annum, with board, lodging, and washing. Applications to the Secretary by February 7th.

ROYAL EYE HOSPITAL AND ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL, Southwark, S.E.—House-Surgeon. Remuneration, £50 per annum, with full board and residence. Applications to the Secretary by February 2nd.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Physician. Must be F.R.C.P.Lond. Applications to the Secretary by February 14th.

SHEFFIELD UNION INFIRMARY.—Resident Assistant Medical Officer for the Workhouse, Fir Vale, Pitsmoor. Not under 26 years of age. Salary, £100 per annum, with apartments, rations, and usual allowances. Also Junior Assistant Medical Officer. Appointment for six months. Honorarium, £12, with furnished apartments, board, and washing. Applications to the Clerk to the Guardians, Union Offices, Sheffield, by February 8th.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—Assistant House-Surgeon. Salary, £30 per annum, with board, lodging, and washing. Applications to the House-Surgeon by February 3rd.

SUNDERLAND, MONKWEARMOUTH, AND SOUTHWICK HOSPITAL.—House-Surgeon, unmarried. Salary, £80 per annum, with board, residence, and washing. Applications to the Honorary Secretary by January 30th.

WAKEFIELD: CLAYTON HOSPITAL AND WAKEFIELD GENERAL DISPENSARY.—House-Surgeon, unmarried. Salary, £90 per annum, with board, lodging, and washing. Applications to the Honorary Secretary by January 31st.

MEDICAL APPOINTMENTS.

ANDERSON, A. J., M.B., C.M.Edin., appointed Medical Officer to the Workhouse of the Staines Union, *vice* A. Curtis, M.R.C.S.Eng., resigned.

BACK, Alfred, L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer for the Acle District of the Blofield Union, *vice* Frank Cufaude, L.R.C.P.Edin., M.R.C.S.Eng., resigned.

BAIRD, G. Henderson, M.D.Brux., L.S.A., appointed Medical Officer to the Cable Department and Postal District, Charlton, also to H.M.S. "Monarch."

BLAGG, A. F., M.D., L.R.C.P., appointed Physician to the Orthopædic Hospital, Bristol.

BOOTH, P. L., M.R.C.S., appointed Honorary Surgeon to North Lonsdale Hospital, Barrow-in-Furness.

BREWIS, N. T., M.B., F.R.C.P.Edin., appointed Gynæcologist to Leith Hospital.

BRYSON, Leonard H., M.B., C.M., M.R.C.S., L.R.C.P., appointed Medical Officer to the Derby School Board.

BUTLER, James, M.B.Glasg., appointed Junior Assistant Medical Officer to the Govan District Asylum, Hawkhead, Paisley, *vice* Campbell Highet, M.B.Glasg., resigned.

CARWARDINE, T., M.S.Lond., F.R.C.S., appointed Surgeon to the Orthopædic Hospital, Bristol.

COLEMAN, Ernest, M.B., B.S.Lond., appointed Assistant Medical Officer of the County Asylum, Rainhill, near Liverpool.

DIBBS, W. S., M.R.C.S. L.R.C.P.Lond., appointed Medical Officer for the Farnham Royal District of the Eton Union.

EMANUEL, J. G., M.B., B.S., B.Sc.Lond., M.R.C.S.Eng., L.R.C.P.Lond., appointed Resident Medical Officer to the City of London Hospital for Diseases of the Chest, Victoria Park.

EYRES, H. M., M.B., C.M.Edin., appointed Medical Officer for the Scorton and Catterick Districts of the Richmond (Yorks) Union.

FARMER, Gabriel William Stahel, M.A., M.B., M.Ch.Oxon., F.R.C.S., appointed Honorary Surgeon to the Radcliffe Infirmary, Oxford, *vice* W. L. Morgan, M.A.Oxon., M.R.C.S., resigned.

FERGUSON, James Haig, M.D., F.R.C.P.E., appointed ordinary Physician for Diseases of Women and Gynæcological Surgeon to Leith Hospital.

GAMAN, F. R. S., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the First District and Workhouse of the Caistor Union.

HART, David Berry, M.D., F.R.C.P.E., appointed Consulting Physician for Diseases of Women and Consulting Gynæcologist to the Leith Hospital.

KENDRICK, G., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Bilston No. 5 District of the Wolverhampton Union.

KILLICK, C. R., M.B.Lond., appointed Medical Officer of the Workhouse and the Williton District of the Williton Union.

MACGIBBON, J., jun., M.B., Ch.B., L.R.C.P.E., L.R.C.S.E., appointed House-Surgeon to the Edinburgh Maternity and Simpson Memorial Hospital.

Messenger, T., L.R.C.P., L.R.C.S.Edin., F.P.S.Glasg., appointed Medical Officer for the Bowness District of the Wigton Union.

Nix, R. E., M.B., B.C.Camb., appointed Medical Officer for the Third District of the Thingoe Union.

Page, G. Shepley, L.R.C.P., L.R.C.S.Edin., appointed Public Vaccinator for the Bristol District by the Guardians of the City and County of Bristol.

Pratt, Reginald, M.D.Lond., appointed Honorary Physician to the Leicester Infirmary, *vice* Charles W. Cooper, M.B.Camb., resigned.

Procter, J. A., L.S.A., appointed Medical Officer for the Lydd District of the Romney Marsh Union.

Rose, L., M.B., appointed Medical Officer for the Second District of the Newport, Salop, Union.

Rutherford, Alexander, M.B., appointed Honorary Surgeon to the North Lonsdale Hospital, Barrow-in-Furness.

Sevestre, Robert, M.D.Camb., appointed Assistant Honorary Physician to the Leicester Infirmary.

Sheppard, E. J., L.R.C.P., L.R.C.S.Edin., appointed Public Vaccinator for the Clifton District by the Guardians of the City and County of Bristol.

Stanwell, St. John, M.B.Edin., C.M., M.R.C.S.Eng., L.R.C.P.Lond., appointed Assistant Surgeon to the Stamford, Rutland, and General Infirmary.

Staple, J. D., M.R.C.S.Eng., L.S.A.Lond., appointed Public Vaccinator for the Ashley Registration District by the Guardians of the City and County of Bristol.

Stone, F. W. S., L.R.C.P., L.R.C.S., appointed Medical Officer for the Bitton District of the Warmley Union.

Struthers, J. W., M.B., Ch.B., appointed House-Surgeon to the Edinburgh Royal Maternity and Simpson Memorial Hospital.

Sutcliff, E. H., M.B.Durh., M.R.C.S., appointed Medical Officer for the Great Torrington District of the Torrington Union,

Tothill, F. C., M.B., C.M.Edin., appointed Medical Officer for the Staines and Laleham District of the Staines Union.

Weekes, C. P., M.R.C.S., L.R.C.P., appointed House-Surgeon to the Boscombe Hospital, Bournemouth.

Williamson, Oliver K., M.B., appointed Second House-Physician to the City of London Hospital for Diseases of the Chest, Victoria Park.

Wilson, J. F., M.D., appointed Honorary Surgeon to the North Lonsdale Hospital, Barrow-in-Furness.

DIARY FOR NEXT WEEK.

MONDAY.

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Mr. C. B. Keetley: The Surgical Uses of Plaster of Paris and of Poroplasty.

TUESDAY.

West End Hospital for Diseases of the Nervous System, 73, Welbeck Street, W., 4 P.M.—Dr. T. D. Savill: Cases of Acroparæsthesia and other Angio-Neuroses.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C., 3.30 P.M.—Dr. Ormerod: Ataxy.

WEDNESDAY.

Obstetrical Society of London, 8 P.M.—Specimens will be shown by Drs. John Phillips, Cullingworth, Des Vœux, and others. Annual Meeting: The President (Dr. Cullingworth) will deliver the Annual Address.

Hospital for Consumption and Diseases of the Chest, Brompton, 4 P.M. Sir R. Douglas Powell, Bart.: On Mitral Stenosis.

THURSDAY.

London Temperance Hospital, 2 P.M.—Dr. Soltau Fenwick: Clinical and Pathological Demonstration to Senior Students.

Harveian Society of London, 8.30 P.M.—Clinical Evening.

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Mr. C. B. Keetley: Injuries and Deformities of the Hip and Knee.

Neurological Society of London, 11, Chandos Street, Cavendish Square, W., 8.30 P.M.—Annual General Meeting of the Society. Dr. W. H. Gaskell, F.R.S.: Presidential Address on The Meaning of the Cranial Nerves.

Charing Cross Hospital, Post-Graduate Course, 4 P.M.—Dr. Eden: Gynæcological Demonstration.

FRIDAY.

West Kent Medico-Chirurgical Society, Royal Kent Dispensary, Greenwich Road, 8.45 P.M.—Dr. Dundas Grant: On Cases of Chronic Suppuration of the Frontal Sinus and Antrum of Highmore treated exclusively through the Nose, with Good Result.

Laryngological Society of London, 20, Hanover Square, 5 P.M.—Cases and Specimens will be shown by the President, Dr. de Havilland Hall, Mr. Bowlby, Mr. Robinson, Dr. Potter, Sir Felix Semon, Dr. Hill, and others.

West London Medico-Chirurgical Society, West London Hospital, W., 8.15 P.M.—Discussion on The Treatment—medical and surgical—of Acute Inflammation of the Vermiform Appendix, to be opened by Dr. Seymour Taylor and Mr. McAdam Eccles, and carried on, among others, by Dr. Donald Hood, Mr. C. B. Keetley, Dr. Stanley Smith, Mr. L. A. Bidwell, Dr. H. A. Caley.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to insure insertion in the current issue.

BIRTHS.

Elliott.—On the 21st inst., at Cranford, St. Annes-on-the-Sea, the wife of A. Campbell Elliott, of a daughter.

Orchard.—On January 17th, at 88, Market Street, Ashby-de-la-Zouch, the wife of Alfred Orchard, M.R.C.S. and L.R.C.P., of a daughter.

MARRIAGE.

Braine-Hartnell—Barker.—January 17th, at Havering, Essex, by the Rev. Prebendary Dimond-Churchward, R.D., Vicar of Northam, Devon, uncle of the bridegroom, and the Rev. Canon Hudson, R.D., Rector of Gilling, York, Christopher Braine-Hartnell, M.R.C.S., L.R.C.P., of Cheltenham, son of the late Rev. G. T. Braine-Hartnell, M.A., to Constance Lilian, daughter of the Rev. J. C. Barker, M.A., Vicar of the parish.

DEATHS.

Bowes.—On the 15th inst., suddenly, at Symnel, Aldington, Kent, William Bowes, M.R.C.S., L.S.A., eldest son of the late William Bowes, Eltham, Kent, aged 5[illegible] years.

Coats.—At 8, University Gardens, Glasgow, on the 24th inst., Joseph Coats, M.D., Professor of Pathology, Glasgow University.

Evans.—On the 8th inst., at his residence, Tanyronen, Portmadoc, Henry Evans, M.R.C.S.Eng., L.R.C.P.Edin., and L.S.A., aged 48 years.

Forsyth.—On January 8th, 1899, at Tansfield House, Castletown, Thurso, William Forsyth, M.B., C.M., son of the late William Forsyth, 130, Gilmore Place, Edinburgh, in his 31st year.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

Cancer, Brompton (Free). *Attendances.*—Daily, 2. *Operations.*—Tu. W. F., 2.

Central London Ophthalmic. *Attendances.*—Daily, 1. *Operations.*—Daily.

Central London Throat, Nose, and Ear. *Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—I.p., Tu., 2.30; o.p., F., 2.

Charing Cross. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.45; Dental, M., 9; Throat and Ear, F., 9.30. *Operations.*—Th. F. S., 3.

Chelsea Hospital for Women. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

City Orthopædic. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.

East London Hospital for Children. *Operations.*—M. W. Th. F., 2.

Great Northern Central. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F., 2.30; Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

Guy's. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 2. *Operations.*—Tu. F., 1.30; (Ophthalmic), M., 1.30; Th., 2.

Hospital for Women, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

King's College. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, daily, 2; o.p., daily, 1.30; Eye, M. W. Th., 1.30; Ear, Th., 2.30; Throat, M., 1.30; F., 2; Dental, M. Th., 10; Skin, W., 1.30. *Operations.*—W. Th. F., 2.

London. *Attendances.*—Medical, daily, i.p., 2; o.p., 1.30; Surgical, daily, 1.30 and 2; Obstetric, M. Tu. Th. F., 2; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, W., 9; Skin, Th., 9; Dental, Tu., 9. *Operations.*—Daily, 2.

London Temperance. *Attendances.*—Medical, M. Tu. W. Th. F., 1.30; Surgical, M. Th., 1.30. *Operations.*—M. Th., 4.30.

London Throat, Great Portland Street. *Attendances.*—Daily, 2; Tu. F., 6. *Operations.*—Daily, 2.

Metropolitan. *Attendances.*—Medical and Surgical, daily, 2; S., 9; Obstetric, W., 2; Eye, W., 2; Throat and Ear, Th., 2; Dental, Tu. Th. S., 9. *Operations.*—Tu. W., 2.30; Th., 4.

Middlesex. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., 1.30; o.p., M., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu. F., 9; Skin, Tu., 4; Th., 9.30; Dental, M. F., 9.30; W., 9. *Operations.*—Daily, 1.30.

National Orthopædic. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

New Hospital for Women. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30. *Operations.*—Tu. F., 9.

North-West London. *Attendances.*—Medical, daily, exc. S., 2; S., 10; Surgical, daily, exc. W., 2; W., 10; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

Royal Ear, Frith Street. *Attendances.*—M. W. F., 3; Tu. F., 9.30 and 7.30. *Operations.*—Tu., 3.

Royal Eye, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

Royal Free. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, W., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

Royal London Ophthalmic. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

Royal Orthopædic. *Attendances.*—Daily, 2. *Operations.*—M., 2.

Royal Westminster Ophthalmic. *Attendances.*—Daily, 1. *Operations.*—Daily, 2.

St. Bartholomew's. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. W. F., 2; o.p., W. S., 9; Eye, M. Tu. W. Th. S., 2; o.p., M. Th., 9; W. S., 2.30; Ear, Tu. F., 2; Skin, Tu., 9; Larynx, Tu. F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9; Electrical, M. Tu. Th. F., 1.30. *Operations.*—Daily, 1.30; (Ophthalmic), Tu. F., 2; Abdominal Section for Ovariotomy, F., 2.

St. George's. *Attendances.*—Medical and Surgical, daily; i.p., 1; o.p., 12; Obstetric, i.p., Tu. F., 1.45; o.p., M. Tu., 2.30; Eye, W. S., 1.30; Ear, Tu., 2; Skin, W., 2.45; Throat, F., 2; Orthopædic, F., 12; Dental, M. Tu. F., S., 12. *Operations.*—Daily, 1; Ophthalmic, M., 1; Dental, Th., 9.

St. Mark's. *Attendances.*—Fistula and Diseases of the Rectum, males, S., 2; females, W., 9.30. *Operations.*—M., 9; Tu., 2.30.

St. Mary's. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 12.45; Obstetric, Tu. F., 1.45; o.p., M. Th., 1; Eye, Tu. F., 9; Ear, M. Th., 9; Throat, Tu. F., 3; Skin, M. Th., 9; Dental, W. S., 9; Electro-Therapeutics, M. Th., 2.30; Children's Medical, Tu. F., 9. *Operations.*—M., 2.30; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

St. Peter's. *Attendances.*—M., 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

St. Thomas's. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Th., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. F., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

Samaritan Free for Women and Children. *Attendances.*—Daily, 1.30. *Operations.*—Gynæcological, M., 2; W., 2.30.

Throat, Golden Square. *Attendances.*—Daily, 1.30; Tu. F., 6.30. *Operations.*—Daily, exc. M., 10.

University College. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. F., 1.30; Eye, M. W., 1.30; Ear, M. Th., 9; Skin, Tu. F., 2; Throat, M. Th., 9; Dental, Tu. F., 9.30. *Operations.*—Tu. W. Th., 2.

West London. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th., 2; Ear, Tu., 2; S., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, M. Th., 2; Skin, M. F., 2; Throat and Nose, Tu., 2; S., 10. *Operations.*—Daily, about 2.30; F., 10.

Westminster. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, Tu. F., 9.30; Ear, Tu., 1.30; Skin, W., 1.30; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications for the Current Week's Journal should reach the Office not later than Midday on Wednesday. Telegrams can be Received on Thursday Morning.

Communications respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the Journal, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* British Medical Journal *alone, unless the contrary be stated.*

Authors desiring reprints of their articles published in the British Medical Journal are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

Correspondents who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

Correspondents not answered are requested to look at the Notices to Correspondents of the following week.

Manuscripts forwarded to the Office of this Journal cannot under any Circumstances be Returned.

In order to avoid delay, it is particularly requested that ALL letters on the editorial business of the Journal be addressed to the Editor at the Office of the Journal, and not at his private house.

Telegraphic Address.—The telegraphic address of the EDITOR of the British Medical Journal is *Aitiology, London.* The telegraphic address of the MANAGER of the British Medical Journal is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are directed will be found under their respective headings.*

QUERIES.

Country Member would be glad to know the simplest and least expensive apparatus to administer oxygen in cases of pneumonia, etc.

H. desires to hear of a home or hospital where for a moderate weekly payment a gentleman with left-sided paralysis can be admitted?

Acetylene desires to learn the names and addresses of any firms which import Swiss or other foreign calcic carbide,

Lyon writes: Could any of your readers tell me what is the composition of "Thé Chambard"? It is a mixture of leaves of aperient plants, it is well known at Lyons. It is used freely as an aperient, but pregnant women are forbidden to take it.

M.D. wishes to know: (1) The best method for disinfecting a room occupied by a patient in advanced phthisis; (2) also the best method of disinfecting handkerchiefs, sheets, etc., on which the sputa of this patient fall.

M.D. asks: Can anyone recommend a comfortable home or lodging where a patient (a woman about 30) can be kept and treated for not more than £40 to £50 per annum? She is in an early stage of phthisis. The above sum must include medical charges as well, as her people cannot afford to pay more.

F.C. asks if there is any institution in London where the dipsomaniac wife of a working man, earning 30s. a week, with three children to support, can be sent. She has never appeared in the police-court, and apparently cannot be dealt with under the new Act.

Lieutenant W. H. Cox, I.M.S. (Chaman, Beloochistan, India) writes: I should feel obliged if I could be informed in the British Medical Journal as to what is the largest amount of fluid aspirated out of the abdomen. I aspirated a man's abdomen the other day for ascites due to liver disease, and drew off on the single occasion the large amount of 480 ounces of fluid. Has this been exceeded?

Home for Epileptic Boy.

Cantab., who states that he is informed that the Epileptic Colony at Chalfont is full, and that no vacancy is likely to occur for some considerable time, asks where a boy of 12 suffering from epilepsy, but improving, could be received.

⁎ A Home for Epileptics has recently been opened by the Christian Union for Social Work at Lingfield, of which particulars may be obtained from the Director, Rev. J. L. Brooke, The Homestead, Lingfield.

Spectacles for Children.

Dr. D. Love, M.B. (Dumbartonshire, N.B.) writes: In the British Medical Journal of January 14th, there is an article from Dr. Menzies on the eyesight of the children attending the Rochdale Parish Church School. He states that only 44 per cent. of the children were found to have normal eyesight, and that the parents of those whose eyesight was defective were advised to have suitable spectacles applied. Believing as I do, as a general practitioner, that the wearing of glasses by children whose eyes are growing and developing along with the rest of their bodies is physiologically wrong, and likely to increase the evils intended to be remedied, I would suggest that Dr. Menzies should supplement his article by stating exactly what percentage of the children he considered to require glasses.

Idiosyncrasy to Milk.

Somerset Member asks for information as to the nature of the following case: I have lately been attending a fishmonger suffering from subacute rheumatism. The patient has been unable to take milk for the following reason: When a boy (10 to 15) he was much in the country districts of Kent and Surrey, and during those years had facilities for obtaining milk. Whenever he "had a good swig," whether it were warm from the cow or not, the symptoms as below manifested themselves. On Saturday last, for the first time for years—he is now 23—he drank a good draught of milk. About fifteen minutes after drinking the lips, cheeks, and lower eyelids began to swell, until the whole face became enormous; this swelling was accompanied by some pain and intense itching. Abatement commenced about two hours after the onset of symptoms, and in about six hours no further sign of swelling was to be noticed. There are no other symptoms of any kind either during or after the attack.

ANSWERS.

Candidate.—The examination papers set for the Intermediate M.B.Lond. are published in the *Calendar* of the University.

R. C. B.—Particulars as to appointments in the Prison Medical Service were published in the Educational Number of the British Medical Journal, August 27th, 1898.

Perplexed Locum.—The writer should use the ordinary precautions to prevent himself from carrying about the infection of scarlet fever germs, and use antiseptics in attendance on his labour cases. If the latter cases then get any illness from him, it will be scarlet fever and nothing more.

T. D., who desires to obtain lantern slides of physiological subjects (such as the eye, ear, nervous system, etc.), suitable for illustrating lectures, might communicate with Mr. Newton, Optician, 3 Fleet Street, E.C.: Mr. Charles Baker, 244, High Holborn; or Messrs. Watson, 313, High Holborn, W.C.

Dr. G. A. Leon (Sidmouth) writes: In answer to the query by "Cantab." in the Journal of the 14th inst. I can recommend the climate here for cases of bronchial asthma. Several people have come here to reside permanently because they have found relief from their distressing complaint in the mild, somewhat moist climate. Amongst them was the wife of my predecessor in practice, who, after living here for eight years, seems to have lost her liability to the attacks, as they have not since returned in London.

Gold Cure.

R. E. H., and Healing.—As we have already stated, we have no knowledge of the composition of the injection, but various medical practitioners, who claim to have had personal experience with other "gold cures," have in American medical journals stated that apomorphine was the drug employed.

X Ray Outfit.

Anxious.—The apparatus which would be required would be as follows: (1) A 10-inch spark coil (preferably by Apps); (2) a 6-cell lithanode accumulator; (3) a tube holder, which can be obtained from Messrs. Muirhead and Co., Westminster; (4) a changing box for taking stereoscopic skiagraphs; (5) Crookes's tubes (Cossar is a good maker); (6) a fluorescent screen. The best photographic plates for the purpose are probably Edwards's "Cathodal" and "Lumières," but there are many other good plates to be had. The names of certain manufacturers are mentioned for our correspondent's convenience as they have been tested, but other makers could probably supply what is wanted.

Medical Etiquette.

B.—We gather that the question to which an answer is desired is, Under what circumstances can a second medical man visit and attend to a patient already in the charge of another medical man, without some correspondence or prearranged consultation? The answer is "Never; unless in some case of pressing and urgent necessity." Medical men are sometimes tempted by over-zealous friends to visit and interfere with another medical man's patient: this not infrequently happens in poorer practices: especially, too, with Poor-law patients. The proper course is to decline, or propose a consultation.

Milk Sterilisers.

Dr. Ingle; G. M.—There does not appear to be any real objection to the use of a tin vessel for the sterilising of milk, if such vessel be kept thoroughly cleaned with cold water, and is always scalded before it is used. This, of course, must be done with all the apparatus in use at present. Tin pans with porcelain inner pans—called milk boiling pans—are now made and may be obtained of almost any size. They are very useful for the sterilising of milk for a household, and are easily kept clean. Another method of sterilising to be recommended is that in which the milk is put into bottles with spring or wire clasped stoppers. These are heated in a "steamer," and closed at once. It must, however, be remembered that the greatest care is also necessary in the washing out these bottles. They should be allowed to soak in cold water until all the milk is removed, and then kept for half an hour in water boiling over a brisk fire. "G. M." might consult an article on Aymard's Milk Steriliser in the British Medical Journal of October 10th, 1896, p. 1041.

"Millerained" Cloth.

Subsequent to the appearance in the Journal of November 19th, 1898, of a paragraph on the process of milleraining and its advantages, inquiries were received as to the person to whom application should be made for this cloth. We are informed that Major A. J. C. Wrench (23rd Royal Welsh Fusiliers) is the owner of millerained patents in India, Burmah, and Ceylon. A letter addressed to him at Lucknow, Oude, India, would no doubt lead to information being sent as to agencies at home or abroad for the sale of millerained drill, khaki (dust-coloured), or white.

Retinoscopy.

Dr. A. S. Percival (Newcastle-on-Tyne) writes in answer to "Student" (Canada): If the distance of the light from the concave mirror be such that a real inverted image of it is formed in front of the patient's eye, the focal length of the mirror is immaterial. If the patient be 1 metre from the observer, he will require − 1 D added to the correcting glass which "neutralised" the shadow; if $\frac{1}{3}$ metre from the observer, he will require − 3 D in addition. I shall be pleased to write a fuller account to "Student" if the above is not sufficient, provided he sends me his name and address.

Obstinate Constipation.

Dr. Thomas Dutton (Holland Park Avenue, W.), in reply to "M.D.'s" query in the British Medical Journal of December 24th, 1898, p. 1919, writes: I have come to the conclusion that cases of obstinate constipation can only be cured by proper dieting; but it is impossible to give a diet card, as every case must be treated on its merits. Generally speaking, all starchy foods should be avoided. I have found eating two *steamed* apples at bed time very useful, also a mixture of stewed figs and prunes. All drugs, except cascara and strychnine, should be certainly avoided, unless it is absolutely necessary to produce a motion. Many women suffer from constipation through not drinking sufficient fluid; then a pint of boiling water sipped at intervals must be prescribed.

Treatment of Chronic Diarrhœa.

Captain P. W. O'Gorman, I.M.S., writes: "W. M.'s" case is serious, needing prompt and thorough treatment. It is evidently what is known as "tropical diarrhœa," or sprue, and requires strict dieting on milk alone, of which, beginning with 3 pints, 5 pints may eventually be taken daily, sipped out of a wineglass in small quantities every hour. The patient must be confined to bed. The plain milk is to be continued for six weeks from the time the stools become solid. Examine the mouth and tongue for lesions, and note improvement as indicative of condition of bowels. Diet to be very gradually altered by addition of egg flip, raw meat juice, bread, arrowroot, etc., any relapse being an indication of immediate reversion to milk alone. Internal medication is of little avail, and interferes with digestion and assimilation. He might try cautiously Schacht's liq. bismuthi, or mist. pepsinæ co. c. bismutho (Hewlett's). Empirically, santonine in small doses has proved efficacious. The milk employed must be pure, and preferably boiled or sterilised unless guaranteed, or "humanised" milk may be tried, or peptonised if necessary; Benger's food is a good addition later on. Refer to works on tropical medicine.

EXAMINATION FOR M.R.C.P.LOND.

P.—A candidate for the M.R.C.P. is required to show a good general acquaintance with medicine—theoretical and practical. The following books may be read or consulted, but there are others which would serve the purpose equally well: Fagge's *Principles and Practice of Medicine*, edited by Dr. Pye-Smith (London: J. and A. Churchill; 40s.); or Osler's *Principles and Practice of Medicine* (London: Young J. Pentland; 24s.); Green's *Pathology*, edited by Montague Murray (London: H. Renshaw, 1895; 7s.); Sims Woodhead's *Practical Pathology* (London: Young J. Pentland; 25s.); Gowers's *Manual of Diseases of the Nervous System* (London: J. and A. Churchill, 1895; 35s.); Whitelegge's *Hygiene and Public Health* (London: Cassell and Co.; 7s. 6d.) Reference should also be made to articles in Clifford Allbutt's *System of Medicine* (London: Macmillan and Co.) We cannot recommend any book on medical anatomy, but should advise "P." to read parts of Quain's *Superficial Anatomy*, 10th edition. 1896 (London: Longmans, Green and Co.; 6s. 6d.), and to supplement this with reference to any standard book on anatomy.

NOTES, LETTERS, Etc.

IN an answer to a correspondent, and also in the heading on page 187, in the JOURNAL of January 21st, the word "overseer," appears, owing to a printer's error, as "dresser."

THE number of deaths mentioned in line 6 of the paragraph on Tuberculosis in Poor-law Infirmaries published on p. 167, should have been 670, and not 760 as printed.

INFLUENCE OF MILK SUPPLY IN THE SPREAD OF TUBERCULOSIS.

UNDER this heading, in the JOURNAL of January 21st, p. 169, line 24 from the beginning of the article, the percentage should be 25.55 instead of 52.55 as printed.

NOTIFICATION OF TUBERCULOSIS: A CORRECTION.

IN the report of the last meeting of the Society of Medical Officers of Health, some remarks on the notification of tuberculosis were inadvertently ascribed to Mr. Shirley Murphy, which were made by a gentleman who followed him. This was due to an error in transcription by the reporter.

A MONEY LENDER'S CIRCULAR.

A CORRESPONDENT, a young man holding a somewhat responsible position, sends us the following circular, the body of which is apparently printed in imitation of typewriting:

DEAR SIR,—Should you at this or any future time desire any cash accommodation, I shall be very pleased to let you have any amount you may require at a very low rate of interest. You can rely that you will be dealt with in a straightforward manner, my object being to invest same with a few reliable medical gentlemen, in any sum from fifty to one thousand pounds, and you can rely that your business will be kept absolutely secret, whether we come to terms or not, also that any transaction will be carried out in a perfectly straightforward manner. Thanking you in anticipation for an offer of business, I am, yours faithfully, ———.

Our readers—and especially our younger readers—will do well to bear in mind the danger that lurks under such offers, and should not be induced to place themselves in the powers of money lenders. The practices to which some, at least, of the fraternity resort have often been exposed of late in the law courts. As our correspondent observes, it is probable that the letter which would be written to a victim who had been led into an "absolutely secret" transaction, and had failed to meet any instalment, would not be couched in terms so polite and benevolent as that above quoted.

ORGANOTHERAPY IN DIABETES.

DR. THOMAS NISBET WRIGHT (Stroud, N.S. Wales) writes that, after reading an article in the BRITISH MEDICAL JOURNAL in 1892 or 1893 on Pancreatic Diabetes, it occurred to him that if pancreatin were coated with a substance indissoluble in the stomach but soluble in the intestine the difficulty would be solved. He wrote to Messrs. Burroughs, Wellcome and Co., who made a tabloid on this principle coated with keratin. Since pancreatin is a digestive ferment, he thinks it is obvious that hypodermic treatment would not be on the same plane with the thyroid treatment hypodermically, thyroid gland having probably some metabolic effect on the blood only.

ERYTHROL NITRATE.

MR. WILLIAM HARRISON MARTINDALE, Ph.D.Marburg (New Cavendish Street, W.), writes: Regarding the several recent mentions of erythrol nitrate in the BRITISH MEDICAL JOURNAL (1899, vol. i. pp. 57, 131, 132), I should be glad if you will allow me to say a word in justification, both from (1) a chemical (explosive) and (2) physiological point of view.

(1) My father made investigations on the explosive powers of erythrol nitrate last year (JOURNAL 1898, vol. i, p. 116), and on those of nitroglycerine more than twenty years ago, before the production of nitroglycerine tablets. Erythrol nitrate, mannitol nitrate, and nitroglycerine tablets of cocoa butter and chocolate are perfectly safe, and indeed the first named, even when struck with a hammer (JOURNAL, 1898, vol. i., p. 116), or when thrown into an open fire, will not explode.

(2) Although "the feeling of great *malaise*" (JOURNAL, 1899, vol. i p. 131) was produced from half a grain in the case of one patient, another case should also be borne in mind—namely, that reported by Dr. E. Garraway (JOURNAL, 1898, vol. i, pp. 18, 127), from which I quote: "To avert the paroxysms it became necessary to administer the remedy (erythrol nitrate) in steadily increasing doses. The patient takes now half a drachm a day."

LETTERS, COMMUNICATIONS, ETC., have been received from:

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BOOKS, ETC., RECEIVED.

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REMARKS
ON OÖPHORECTOMY IN THE TREATMENT OF CANCER OF THE BREAST.

By STANLEY BOYD, M.B., F.R.C.S.,
Surgeon to Charing Cross Hospital.

In a paper published in the BRITISH MEDICAL JOURNAL of October 2nd, 1897, I gave notes of 5 cases of cancer of the breast in which I had performed the operation of double oöphorectomy. The notes were brought down to August, 1897, so I am now able to add the results of more than a year's further observation.

In 2 (Nos. 3 and 4) of the 5 cases the ovaries were removed after the menopause; no obvious effect was produced upon the cancer, and one of these patients (No. 3) was dead before my paper was written. The other (No. 4, Fig. 1) had derived no benefit in eight weeks. About August 20th, 1898 (seventeen months after the oöphorectomy), I saw this patient. She looked well, and was strong, and able to do all the work a woman of 66 could be expected to do. She had just returned from a seaside holiday, and felt very well. She believed that the "lump" on her chest was getting very slowly smaller, and I think it was smaller than a year ago. I could find no other recurrences, superficial or visceral. On December 1st, 1898, she wrote: "I am keeping as well as usual." In Nos. 1 and 2 I claimed that marked improvement had resulted from the operation. In No. 5 the oöphorectomy had been done quite recently. I propose to trace the further history of these cases, and to add two others.

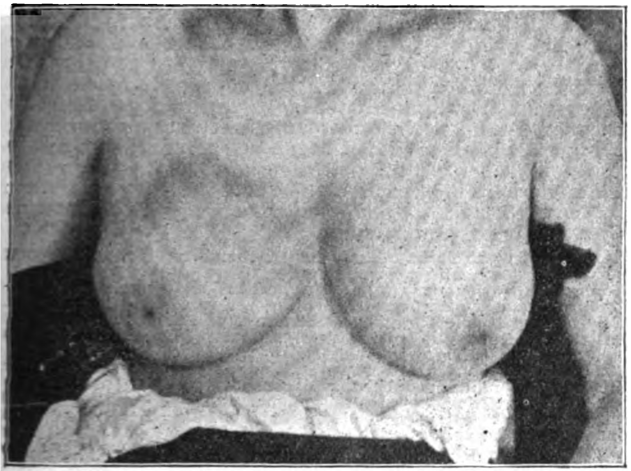

Fig. 1.—To show that the growth was not of "atrophic" type.

CASE I.—Oöphorectomy was performed on December 22nd, 1896, and my last note on August 16th, 1897, chronicled unexpected improvement, apparently connected with a sojourn at Shipley, near Bradford, a place which former experience had shown to "agree with" the patient better than any other place she had visited. After this visit she was in excellent health; the nodule in the pectoralis major had shrunk to about the size of a filbert in its shell, and all other cancer masses (with the possible exception of one subcutaneous nodule) seemed to have disappeared. Naturally, I recommended this lady to return to Shipley, and to stay there, but she did not do so.

After-History during 1897.—On October 22nd, 1897, her health remained excellent. The pectoral nodule was about the same, but the doubtful trace of the subcutaneous nodule (4 in the diagrams), which I thought I could feel in August, had gone. I again urged that she should have another change from her home in Rochester; and on October 25th she went to Hastings, and began taking two tabloids a day of thyroid extract, soon rising to three, which caused palpitation and shortness of breath. They were not long continued, and had no appreciable effect upon the cancer. On December 8th, 1897, she came up from Hastings. Her general condition left nothing to be desired. I thought the pectoral nodule somewhat larger, and there was slight fulness above the left clavicle with some difference to touch, but no definite gland.

History during 1898.—She went to Shipley for two months soon after this, but no beneficial action on the cancer resulted. On March 4th, 1898, she was in excellent health, and had put on flesh (she was always well covered). The pectoral nodule had not diminished. I thought there was some infraclavicular fulness; supraclavicular fulness was more distinct, and a small gland could now be felt. On October 11th, 1898, this patient called. She had been at the seaside a good deal since I last saw her, and had been very well. Her weight had been steady for some time at 12 st. 3 lbs. She had more colour in her face than I had ever seen before, and, indeed, looked "the picture of health." She had written me in July that "the lump" (in pectoral) had "gone down very much," so that sometimes she could "scarcely feel it at all." I could find no nodule in the pectoral, but the muscle did not feel quite normal about its former site, and the deep parts were not quite so plainly felt through it on the left as on the right. I think there is slight fulness of the left pectoral region, but am not certain. The supraclavicular fulness is about the same as in March. The depression over the heart seems to be quite free from growth, and no subcutaneous or other secondary nodules can be found.

I do not think that all sign of cancer has yet disappeared in this case. I believe that the early continuous disappearance of cancer following upon the oöphorectomy was due to the removal of the ovaries, but I feel that there is room for doubt as to the cause of the late variations of the pectoral nodule.

CASE II.—In this case (Fig. 2) the most rapid and satisfactory disappearance of cancer nodules and infiltrations occurred during the first six months.

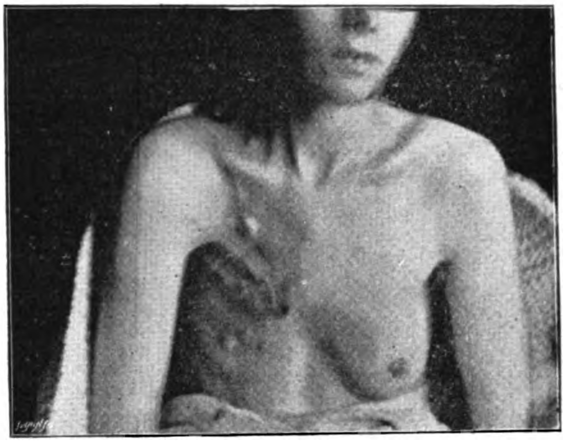

Fig. 2.—From a photograph by Dr. Horace Sanders, taken just before the oöphorectomy. These are the chief points shown: Thinness of patient; prominent gland above right clavicle; triradiate scar on right chest, with large nodule at meeting point of branches; a bridle-like prominence running from this up to clavicle with a nodule at its centre; general infiltration of the skin and subcutaneous tissue along and behind the lower limit of the scar, often closely adherent to the chest wall; a lower group of three nodules, of which the posterior is the larger: a nodule in the upper and outer part of left breast. There was a good deal besides which a photograph could not show.

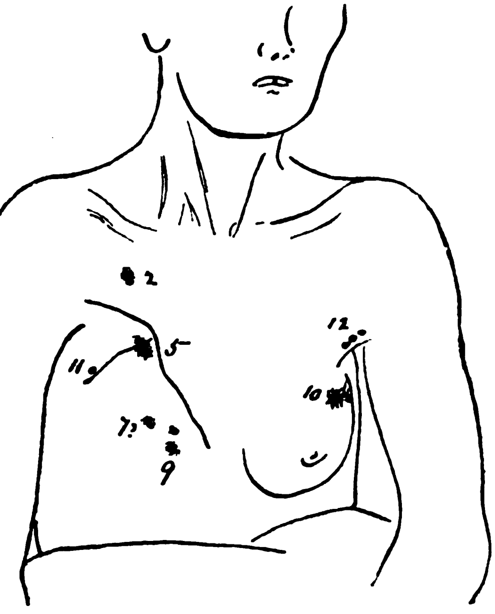

Fig 3.—August 6th, 1897. At first sight the scar and chest wall look absolutely normal; then faint red spots were noticed at (2), (5), (7 ?), and (9), increased by handling; skin here very slightly thickened. (11) A new skin nodule as large as a pea. (10) Perhaps thrice as large, dimpling skin. (12) Two or three axillary glands enlarged.

My last note (August 6th, 1897) stated that the operation scar and the surrounding chest wall looked practically normal. The patient had put on 11 lbs., and had gained colour, so that, though still thin, there was nothing unhealthy in her appearance. She was free from pain, had gained strength markedly, took a good walk daily, and seemed to have recovered her natural cheerfulness. But even at that date careful examination showed five spots (Fig. 2), at which slight redness and infiltration of skin remained; upon the right chest a small new skin-nodule had appeared; the growth in the left breast had trebled its size, involved the skin, and infected two or three glands in the axilla (Fig. 3).

After-History in 1897.—Nevertheless, the downward course as regards general strength did not begin at once. On October 8th I saw this patient after a fortnight at Southend. She had gained another 1 lb. (12 lbs. in all since the operation); her strength remained the same as in August, or had perhaps increased, as she was now doing light household duties which naturally fell to her share. A chart of the chest showed marked increase of growth (Fig. 4).

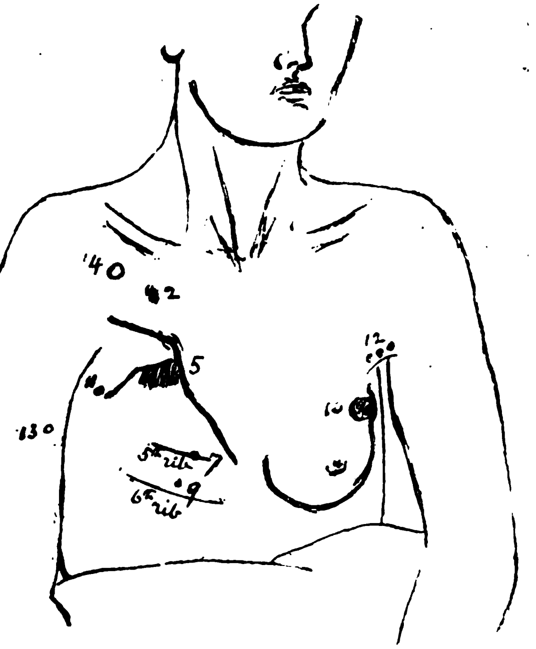

Fig. 4.—October 8th, 1897. 2 and 5 redder and thicker; 5 adherent again; 7 and 9 about same; 10, and 11, rather larger; 12, same; 4, again a distinct nodule in pectoral; 13, fresh nodule over latissimus.

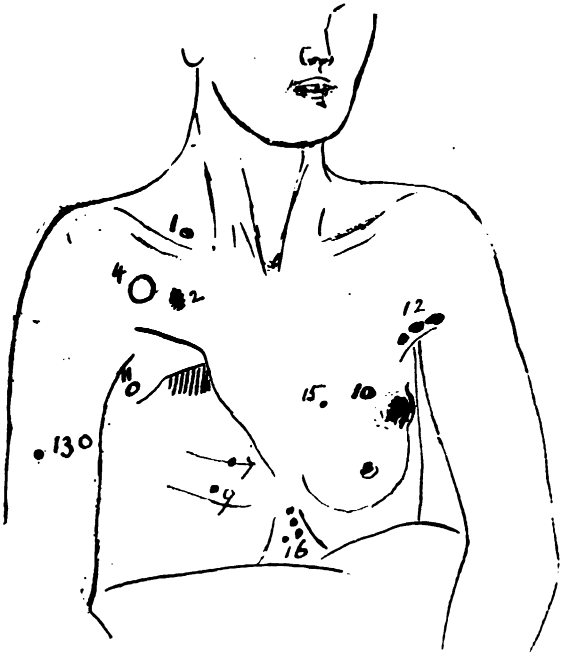

Fig. 5.—December 10th, 1897. Gland above clavicle again felt, 1; 2 is plainer; 4, size of ½d.; several new skin nodules, 15, 16, and one over right scapular angle; 10 larger, square inch of skin involved; several other nodules in breast—mastitis (?); 12, size of haricots.

The effect of the oöphorectomy having been exhausted, it seemed to me that thyroid might fairly be tried. On November 22nd her medical attendant, Dr. Sanders, reported that she had been taking 20 grains a day for a month, that she was fairly well, but had lost 5 lbs. This could not be regarded as an improvement, and the thyroid was stopped.

On December 10th, 1879, I saw this patient for the last time. She was paler and markedly thinner; still fairly strong; viscera and bones apparently normal. Fig. 5 shows the superficial extension of the disease.

After-History in 1898: Death.—Death occurred on July 14th, 1898. The patient was confined to the house from the beginning of May, and to bed for about a month before death. She became greatly emaciated, but did not suffer much. Dr. Sanders, who took great interest in the case throughout, wrote me that nodules became so numerous over the front and back of the chest and over the front of the abdomen (some in the oöphorectomy scar), that it was impossible to chart them. The mass in the left breast reached the size of a tangerine orange and ulcerated slightly; as also did a nodule in the right mid-axilla. Secondary growths were detected in the liver and in the sternal end of the left clavicle.

The total known duration of this case was two and a-half years; but evidently the growth had existed a considerable time before it was recognised. The patient was very feeble and suffering much pain when the oöphorectomy was done. Improvement was immediate, both local and general. She continued gaining flesh and strength for eight months, though local increase of disease had begun at six months. It seems probable that her condition in February, 1898, was about the same as it was in February, 1897, the date of the oöphorectomy; in other words, about a year of life, much of which was worth living, had been gained for her.

Case v.—This case merits fuller statement than it received in my former paper.

History.—The patient was a rather stout, healthy-looking woman of 46, menstruating regularly, married, twelve children, no previous breast trouble, family history excellent. In December, 1895 (fifteen months before admission, she accidentally noticed a pea-like lump below and outside left nipple; it grew steadily and painlessly.

Condition when first seen.—In May, 1897, it was as large as a small orange; skin over it thinned, reddened, and centrally ulcerated; the nipple markedly retracted; pectoral fascia slightly involved. Axilla full and firm, and at least one enlarged gland could be felt. There was distinct fulness both above and below the clavicle, but no gland was felt. One or two glands were palpable in either posterior triangle. The edge of the liver could just be felt.

Oöphorectomy, May, 1897.—In this case I felt that in spite of the widest operation I could perform, speedy recurrence was only too likely. It seemed to me, therefore, that the influence of oöphorectomy should be at once invoked in aid of a radical operation. Accordingly, with the patient's consent, on May 19th, 1897, I removed two rather small ovaries, and went on immediately to a wide removal of breast, skin, pectoral fascia, and superficial fibres of the muscle and axillary contents. No nodules were seen or felt in the great pectoral. One or two small but very hard glands were found just below the clavicle. The wound was closed by widely undermining the flaps and using button sutures. The combined operation occupied 1¾ hour, and some pallor was evident at the end; but this was from rather free bleeding from the breast. Healing by first intention of both wounds took place.

Condition in May, 1898.—I examined this patient on May 14th, 1898—a year after the operation. She was rather stouter than at time of operation. She looked the picture of health, and was obviously full of energy. There was no sign of superficial recurrence, nor could I find evidence of mischief internally.

No conclusion as to the value of oöphorectomy can be drawn from this case. I can only repeat that I thought that the prognosis after my usual operation alone would be bad, and I should say that the state of matters found at the operation justified my fears. I asked this patient when I last saw her—that is, when she had had a year's experience of the general effects of the oöphorectomy—whether, supposing she had again to decide, she would submit to the operation. Her reply was: "Most certainly." I heard as lately as November 26th that this patient was perfectly well and strong.

I will now give details of two other cases in which I have operated, but of which I have as yet published no account.

Case vi. *History.*—A married woman, aged 31, was admitted in March, 1896. Her father died of cancer of the tongue. She had two children, the youngest being 8 months old. Six months ago, when nursing this child, she accidentally noticed a hard lump in her right breast, from which milk soon disappeared, while the left is still full, the child having only just been weaned from it. At the same time she noticed lumps in the right axilla, which, she said, had remained stationary while the mass in the breast had grown steadily. She had lost a good deal of flesh and strength; but, though thin, she had a good colour and was fairly strong.

Condition on Admission.—The right breast and nipple (not retracted) were a good deal *smaller* than the left. (Fig. 6.) A stony mass, 1½ inch by 1¼ inch, lay in the upper and outer quadrant, thinning, but scarcely adhering to, the skin, probably adherent to the pectoral fascia. Large glands could be seen in the axilla. Viscera and bones seemed unaffected.

Excision of Breast.—On March 21st, 1896, the breast was removed, with a large piece of skin over the tumour, the pectoral fascia, the whole thickness of the great pectoral, deep to the mass, and the contents of the axilla from the subclavius down. The highest gland recognised was small but hard. The wound was closed with tension, but healed by first intention.

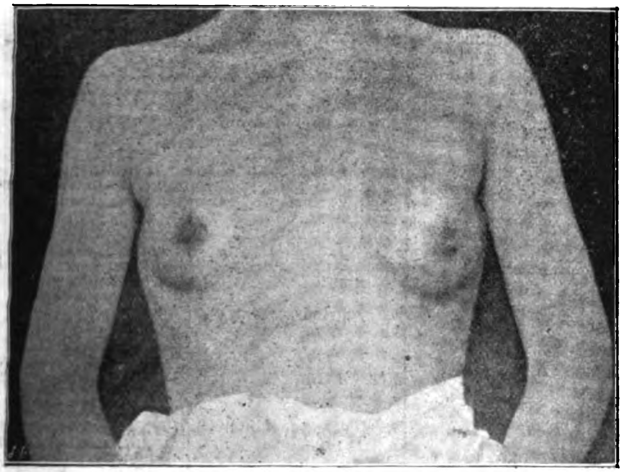

Fig. 6.—Right breast cancerous and *smaller* than left, which was full of milk, while the right held none.

After-History. — On September 11th, 1896, she was admitted for lymphangitis of right upper limb; no recurrence; supraclavicular glands could not be felt. On November 16th, 1897, the patient had noticed enlargement of the supraclavicular glands for three months, and came complaining of weakness and shortness of breath (probably due to early pregnancy—see later) and pain shooting into the right occipital region. She looked well, had a round flattened mass, 1 inch by 1½ inch, above the right clavicle, probably adherent to the scalenus anticus; all else seemed normal. Menstruation had been irregular lately, thrice during the last six weeks, but less in quantity than usual.

Oöphorectomy.—On November 20th, 1897, double oöphorectomy was done. The uterus I noted was rather large, and the left tube was full of blood. I also removed the glandular mass above the clavicle more or less completely from the scalenus anticus, the brachial plexus, and the subclavian vein, to which structures it adhered. Immediate healing occurred.

Pregnancy and Delivery.—On February 9th, 1898, she appeared with an abdominal tumour which proved to be a 5 months pregnancy, and in June a normal labour followed, the child being small but healthy, and liquor amnii very scanty. Five weeks after this event (on July 13th) she looked very well and had certainly put on some flesh. She was kept in hospital for a week because on her arrival she became acutely ill, and developed erysipelas of the right arm and shoulder, starting apparently in connection with a small subcuticular suppuration on the thumb. This was the second inflammation of her arm since the axilla was cleared out.

Sequel.—On July 21st, 1898, I noted that the breast scar and axilla were normal. The right hand and forearm were a little swollen, deep furrows being left. Beneath the supraclavicular scar lay two small nodules, one freely movable, one slightly attached to the deep parts: these (scalenus anticus ?) felt indurated, but not enlarged or misshapen. Viscera and bones were apparently normal. The uterus was small, anteverted, freely movable; the vaginal cervix had almost disappeared (hyper-involution). December 22nd, 1898, Four days after leaving hospital in July, the patient had another severe attack of erysipelas (?) of the arm, and within a month she had two more. Her thumb-nail was the seat of some suppuration for five weeks after her discharge. These attacks pulled her down greatly. In October she went to the country and returned much better. On November 19th another (the sixth) inflammation of the arm began, with a good deal of pain in the neck; no fresh focus of absorption had appeared, which has continued off and on since. Her weight had fallen from 7 st. 3 lbs. in July to 6 st. 12½ lbs., but she did not look ill, and strength seemed good. The scar, chest wall, and axilla were sound. Above the clavicle there was no swelling, but induration had, I think, increased outwards from the scaleni; the gland-like nodules had not changed. The forearm was œdematous along its ulnar border. I found no evidence of growths in viscera or bones.

Clearly, there is no "cure" here; but it seems likely—when we consider the youth of the patient, the acuteness of the onset, its connection with pregnancy and lactation, and the occurrence of a pregnancy which went to term after the removal of the breast—that the oöphorectomy has done something towards holding the disease in check during the thirteen months since its performance. The loss of weight may, indeed, be largely due to the repeated attacks of inflammation of the arm.

CASE VII. *History.*—A married woman, aged 46, sent to me by Mr. H. H. Phillips, of Penge, in November, 1897. She gave no family history of tumour. She had had no breast trouble with any of her six children. Three years ago she noticed a mass in her left breast, which increased slowly at first, but rapidly with much pain during the last year. Under poulticing it fungated two months ago. Swelling and pain in the axilla had existed two months. This patient had been confined to bed for some time previous to admission.

Condition on Admission.—She was extremely anæmic, and looked much worn with suffering, thin, but not emaciated (Fig. 7). Her left breast was of large size, and seemed to be entirely involved by a new growth; nipple fully retracted; above it were two large fungating masses and two or three deep holes discharging pus and sloughs; below the nipple the skin was thick and leathery. The breast adhered to the pectoral fascia. The left axilla was blocked with a hard, lobulated mass, just movable on the chest wall. The supraclavicular region, viscera, and bones seemed normal. Had I not hoped for help from oöphorectomy—for the patient was still menstruating (every three weeks of late, as if the menopause were at hand)—I certainly should not have touched this case.

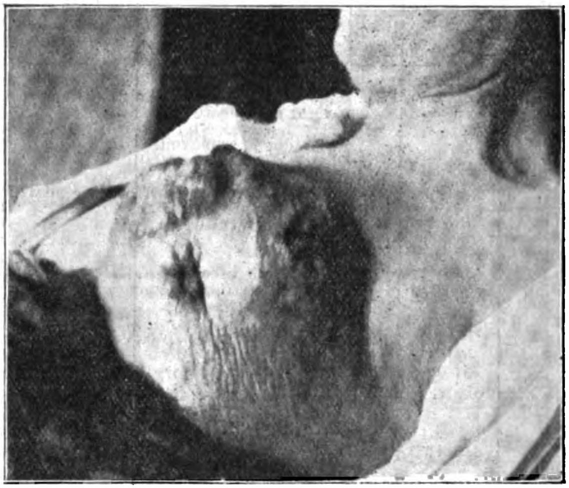

Fig. 7.—From a photograph by Mr. Phillips shortly before operation.

Oöphorectomy.—On November 6th, 1897, I performed a double oöphorectomy, and at the same time removed the breast with most of the skin over it, the pectoral fascia, and the sterno-costal portion of the great pectoral. The contents of the axilla were dissected and torn from the side of the thorax, latissimus, and great vessels, the latter being cleaned to the clavicle, below which small affected glands were found. The wound was very large, but was closed excepting a small central gap. I had taken unusual precautions against soiling the wound; but suppuration of moderate severity occurred, with consequent gaping and slow healing. In spite of this her condition was noted as improved in all respects on the 10th, and the improvement continued. On the seventy-fourth day she went to our convalescent home at Limpsfield much improved in health, strength, and appearance.

After-History.—On February 9th, 1898 (three weeks later), she returned in much better general condition. The wound had healed, but two ulcerated recurrences were sprouting through the scar, one adherent to the third cartilage, the other to the lower end of the gladiolus. Hard movable nodules could be felt as high as could be reached in the axilla, and there were several enlarged hard glands in the left posterior triangle. There was no pain or sign of visceral involvement. From this date onwards Mr. Phillips kept careful notes, from which I extract the following:

Soon after returning from Limpsfield she went to friends at Dover; general improvement continued, so that she could stay out a couple of hours at a time, and walk four miles or more. After she returned home strength began to fail, and the local condition became steadily worse. In June she could not walk out, but went out in a bath chair up to July 4th. Soon after she became bedridden; but in August she was neither so weak nor so thin as in November, 1897, and her pulse was a good deal stronger, although a serious bleeding from the fungus had occurred. Death took place on September 17th.

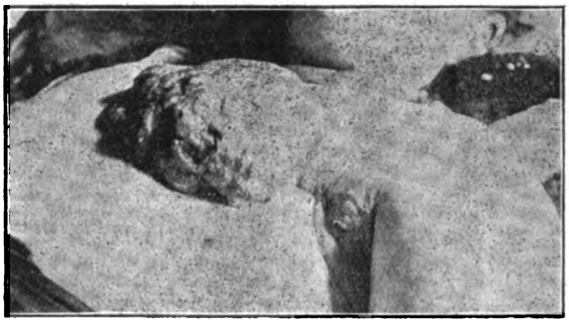

Fig. 8.—From a photograph by Mr. Phillips. State when thyroid was begun.

The operation, serious as it was, and unfortunate in its after-course, seems therefore to have lengthened life. Had not suppuration occurred the advantage gained would doubtless have been much greater. It is impossible to decide whether the oöphorectomy had any share in producing

No.	M. or S., Ch.	Menses.	Age at Oöphorectomy.	Operations and Dates of.	Total Known Duration: Type of Disease.	Amount of Superficial Disease.	Viscera and Bones.	General Condition.	Results of Oöphorectomy.	Latest Note.
1	M., ch.	Regular	44	Tumour removed Sept., 1892; amputation of breast, June, 1893; recurrences removed, June, 1896; oöphorectomy, Dec., 1896	6 to 7 years, C	Considerable	*Nil*	Good	Steady disappearance of much growth from skin, fat, glands, and muscle for 5 months: then intermittent improvement	Oct., 1898 (20 months after oöphorectomy). Health excellent; slight remains of local disease.
2	S.	Regular	37	Free removal of breast, etc., March, 1896; oöphorectomy, Feb., 1897	2½ to 3 years, A	Moderate	*Nil*	Feeble	Rapid disappearance of almost all skin, fat and gland growths; flesh and strength gained markedly	Died July, 1898 (17 months after oöphorectomy). Gain of life probably 1 year.
3	M.	Ceased 6 months	49	Removal of breast, etc., Aug., 1891; oöphorectomy, March, 1897	At least 6 years, C	*Nil*	Widely affected	Very feeble	Some relief of pain; ulcer over sternum tended to heal	Died 14 weeks after oöphorectomy. Visceral and osseous growths not affected.
4	W., ch.	Ceased many years	64	Removal of breast, etc., April, 1896; oöphorectomy, March, 1897	More than 3 years, A at onset	Small	*Nil*	Good	?. Ovaries excessively atrophied	Aug., 1898 (17 months after oöphorectomy). Health good; cancer nodule rather smaller.
5	M., ch.	Regular	46	Removal of breast, etc., and oöphorectomy, May, 1897	About 3 years, A	Large, but removed	*Nil*	Good	?. I think helpful	May, 1898 (1 year after operation). Health good; no recurrence.
6	M., ch.	Menses thrice in 6 weeks; pregnant	32	Removal of breast, etc., March, 1896; oöphorectomy and removal of supraclavicular glands, Nov., 1897	3 to 3½ years, A	Small	*Nil*	Good	?. Disease seems held in check	Nov., 1898. Health fair; slight loss of flesh; no secondary growths.
7	M., ch.	Regular	46	Removal of breast and much local disease and oöphorectomy, Nov., 1897	4 years, A	A good deal left	*Nil*	Very feeble	?. All improvement possibly due to removal of cancer, to feeding, etc.	Died September, 1898 (14 months after operation); a year of life probably gained.
Collected Cases.										
*1	M., ch.	Regular	33	Removal of breast, etc., 1895; oöphorectomy, June, 1895	More than 5 years, A	Considerable	*Nil*	Fair	Complete disappearance of all recurrent growths in 8 months	Recurrence beginning early in 1898 (nearly 3 years after oöphorectomy).
*2	M., no ch.	Every 3 weeks	30	Breast inoperable; oöphorectomy, Oct., 1895	About 6 years, C	Large	*Nil* (see last column)	Fair, alcoholic	Marked relief of pain; slight disappearance of cancer	Died of secondary growths in liver.
*3	W., ch.	Regular	34	Amputation, date (?); öophorectomy, Oct., 1896	About 4½ years, A	Considerable	*Nil*	Fair	Marked improvement for 6 to 7 months in skin—infiltration and glandular growths	Living in March, 1898; extensive glandular recurrence; much pain.
*4	?	Regular	32	Breast inoperable; oöphorectomy, May, 1897	14 months, very A	Large	*Nil* (see last column)	Very feeble	Very slight effect	Died in 5 months; growths in lungs and liver.
*5	M., ch.	Irregular for 3 years	47	Breast removed, Oct., 1890; attempt to remove glands, Dec., 1896; oöphorectomy, March, 1897	At least 8 years C	Considerable	*Nil*	Good	Steady disappearance of all growth	May, 1898 (14 months after oöphorectomy) said to be free from obvious cancer

A = acute. C = chronic. An attempt is made roughly to indicate rate of growth up to oöphorectomy.

* Cases 1 and 2 were under the care of Dr. Beatson, who had three other cases which showed only slight improvement, and of which no details are given (*Trans. Med. Chir. Soc. Edin.*, 1895-96, N. S., xv, 153-179). Cases 3 and 4 belong to Mr. Watson Cheyne (BRITISH MEDICAL JOURNAL, 1898, i, 1194); and Case 5 to Dr. Herman (*Lancet*, 1898, i, 1612).

such improvement as did result. It is certain that its influence must have been slight and of short duration.

Thyroid Treatment.—On June 11th, 1898, the state of matters being that shown in Fig 8, from a photograph by Mr. Phillips, this patient was put upon thyroid 3 gr. per diem. She was then in bed almost all day, suffered a good deal of pain, vomited occasionally, and had a pulse of 120. In the first month the dose of thyroid was raised from 3 to 24 gr. per diem. Pain in the breast region had disappeared, but was severe in upper arm. At first vomiting was no more than usual, but with the larger doses it became frequent, and the tabloids were often returned. With short intermissions, however, she took 3 or 4 gr. thrice daily. Mr. Phillips wrote on August 11th, 1898 (after two months of treatment) that the fungating growths had not increased since the thyroid was begun. He fancied there had been a little spread of infiltration down the thoracic wall of the axilla. Œdema of the arm varied greatly from week to week. A lump the size of half a hen's egg in the right axilla, and a smaller mass, not typically scirrhous, in the margin of the right breast, had just appeared. These new growths, and another which appeared very rapidly on the left side, gained ground, while the patient wasted steadily and the pulse failed. She persisted with the thyroid: vomiting became less troublesome during the last four or five weeks of her life.

The trial of thyroid here was as thorough and as persistent as it possibly could be; it is doubtful whether any benefit resulted. The patient was very far gone when the remedy was begun.

I give above in tabular form abstracts of my own cases and of such cases published by others as I have been able to find. I have been unable to discover any American, French, or German cases.

THE VALUE OF OÖPHORECTOMY.

The first point to which I would draw attention is that in the above cases no thyroid was given until it seemed clear that the effect (if any) of the oöphorectomy was exhausted. We are thus able to judge of the effect of removal of the ovaries upon mammary cancer and its metastases. I think it is hardly possible to doubt that in some cases the removal of the ovaries does induce the disappearance of cancer tissue.

But from the practical point of view is oöphorectomy a justifiable mode of treatment? This question can be answered only when we have a sufficient number of cases to be able to determine in how many per cent. oöphorectomy acts beneficially, and the duration of the relief it may afford. If, further, we can learn to distinguish the cases in which it does good from those in which it fails to act, a great step will have been gained. We have no such statistics to guide us. I can find mention of only 15 cases, including my own 7, and in many of these scanty or no details are given. I would urge that full notes of all should be published.

In considering whether oöphorectomy is justifiable we must remember that under ordinary conditions it is one of the simplest operations in surgery; that under such conditions the mortality must be extremely small; that the value of ovaries, or any other organ not essential to life, to a woman with cancer, is greatly reduced; and that the effects, injurious or other, upon the mind and body of removal of both ovaries do not seem to be well ascertained. In many cases, at all events, no undesirable results ensue; this has been so in all my patients.

Perhaps I may sum up my seven cases thus: In my opinion the beneficial effect of the oöphorectomy was indubitable in two (Nos. 1 and 2); probable in two (Nos. 5 and 6); absent or very doubtful in three (Nos. 3, 4, and 7).

If we take the group of failures first, we note at once that it contains the only two instances (3 and 4) in which oöphorectomy after the climacteric was performed. In No. 3 menstruation had ceased only six months, but the disease though fairly chronic (6-7 years) was very advanced and widespread in viscera and bones. In No. 4 the menopause had occurred many years earlier; the primary tumour in the breast reached a large size in six months, and the recurrence for which I did the oöphorectomy seemed to be growing fast, but there was no evidence of generalisation. I looked upon the disease as pursuing an acute course, and when I wrote my first paper I thought that the oöphorectomy had done nothing to postpone the death, which I anticipated for her within a short time. It seems that I was wrong in my forecast; owing to unknown influences the rate of progress of the disease has diminished. I may have been mistaken also in thinking that the atrophied ovaries in this case must have been functionless, and that their removal could therefore have had no effect upon the disease. I know of no other case in which oöphorectomy for cancer has been done after the menopause; but although there is little encouragement to be got out of these 2 cases, they do not prove the uselessness of oöphorectomy after the climacteric. The third failure (No. 7) differs from those just mentioned in that she was menstruating regularly. Locally things were about as bad as they could be; the patient was bedridden; she was saturated with cancer and septic products, and her pulse was so weak that there was doubt as to whether she would bear conveyance from Streatham to Charing Cross. There was no evidence of secondary growths. Complete removal of the local trouble was impossible; the question was whether, if an incomplete local operation were done, the removal of functionating ovaries would enable her tissues to deal with the amount of cancer left behind. The answer was in the negative; unfortunately, the tissues were further depressed by prolonged suppuration, but I cannot think that this made the difference between "kill and cure." Dr. Beatson's first and most successful case, and Herman's equally successful case, in neither of which was the large local recurrence diminished by operation, seem to show that the failure of oöphorectomy in No. 7 was not due only to the mass of growth present. The extreme debility of No. 7 may have had its influence.

As to Group II there is not much to be said; a hostile critic might fairly take the view that oöphorectomy did nothing for these patients. In No. 5 I had a bad case to deal with; I therefore performed oöphorectomy in addition to a radical local operation. There has been no recurrence in over a year, but there would be no difficulty in quoting similar cases in which such a result followed from a local operation only. In No. 6 the disease is not advancing as might be expected from the previous history; I am inclined to attribute this to the oöphorectomy; but a similar change in rate of growth may occur without oöphorectomy. Perhaps No. 3 is an example of this, the oöphorectomy in her having been really without effect.

Group I contains what I regard as distinct successes. No. 1 was a case naturally inclined to run a somewhat slow course. Now, two years after the oöphorectomy, she is almost free from discoverable cancer, and her general health is excellent. She herself has no doubt as to whether it was worth while having the oöphorectomy done. No. 2 is dead; the cancer nodules had scarcely disappeared before they began to reappear, and fresh ones to form. She was 37. Her disease was of fairly rapid type. I think that about a year was added to her life, and it seems to me that many would gladly purchase a year of life at the cost of an oöphorectomy. Some primary and many secondary operations have not benefited patients to this extent. I do not know whether my account of these cases is convincing, but no one who watched them could doubt the influence of the oöphorectomy in inducing the disappearance of the cancer tissue.

With these cases may be placed (*a*) Dr. Beatson's first case, in which a woman of 33, with bad recurrence on the chest wall of cancer of fairly rapid type, was completely freed of discoverable cancer in the space of eight months after an oöphorectomy, and remained so until nearly three years from the operation had elapsed; then the disease reappeared. (*b*) Dr. Herman's case, aged 47, of chronic type (over seven years' duration), in which inoperable recurrence in the axilla is said to have disappeared, the patient being apparently free from cancer fourteen months after the oöphorectomy. For three years this patient had menstruated irregularly, as if the menopause was at hand.

Examination of such facts as I know concerning these cases does not enable me to draw a clear line between them and others which benefited little or not at all. Yet there are obvious differences between the groups. Among the successful cases, menstruation had ceased in none, though Herman's case and my No. 3 tend to bridge over this gap. The general condition was good in all except No. 2, the least successful. In none was the total amount of cancer very large, and in none were visceral or osseous growths detected. The type of disease—that most important point—varied, being chronic in my No. 1 and Herman's case, fairly acute in Beatson's case, whilst in my No. 2 the disease, kept under by amputation of the breast, and later by an oöphorectomy, ran its course in two and a-half years. Although the most acute case was the least successful, the one next to it, in point of acuteness, was the most successful yet recorded. It is noteworthy also that Beatson's case was exceptionally young (33), and that the primary growth had passed through two lactations.

In face of these 4 cases out of the 15 I have collected, in which, as I think, relief worth obtaining was afforded by oöphorectomy; and feeling that in all probability benefit has been conferred upon the 2 cases in my second group, I have not yet come to regard the operation as useless, or nearly so, in the treatment of mammary cancer. I cannot dispute Mr. Cheyne's statement that in all cases its effect is only transitory (if "transitory"=lasting three years), and that in many none is produced. I have reason to share his disappointment with the treatment; but I nevertheless think that he is a little hard in his judgment, which is based chiefly upon two cases in young women. No doubt, as he says, one would expect the effect of oöphorectomy to be most marked when the ovaries are in full vigour. But things are not always as we should expect. It early became apparent not only that all cases were not equally affected by oöphorectomy, but that all secondary growths in the same case, and even in the same tissue, were not equally influenced. To explain the failure to act in some cases, I hazarded the suggestion in my first paper that the internal secretion of the ovaries may vary, and that only when it has varied in some unknown way does it favour the growth of cancer. If there be anything in this theory it is conceivable that this variation in the secretion may occur more commonly after than before 40. Next, such evidence as we have tends to show that in the etiology of cancer the ovary is not an exciting cause, but only a predisposing influence of greater or less strength in different cases. Now, speaking generally, the younger the patient the more severe is cancer likely to be; resistance to cancer seems to increase with age. To decide that oöphorectomy is useless unless it can control cancer under the most difficult conditions might lead to our casting aside a remedy of some value. Mr. Cheyne's first case reads very like Dr. Beatson's first, yet the improvement following oöphorectomy in the former lasted only six or seven months. What was the reason of the difference? In his second case Mr. Cheyne seems to feel that he asked too much of the remedy. The patient was 32, and so predisposed to cancer that the total known duration of the disease was only fourteen months. She was extremely weak on admission nine months after the discovery of the primary growth, which was inoperable. There was a large amount of primary and secondary growth present. Only slight improvement followed the oöphorectomy.

I think that in some cases oöphorectomy is of value as a palliative operation. A great deal more work, and perhaps very difficult work, will be necessary to determine its powers, and its mode and range of action.

THYROID TREATMENT.

In Beatson's, Cheyne's, and Herman's cases thyroid extract was given while the effects of the oöphorectomy were being observed. Regarding it as a powerful "lymphatic stimulant," Beatson put his cases on thyroid for a month or so and seemed to obtain no result. He then tried oöphorectomy *plus* thyroid and obtained more or less result, which, I should say, oöphorectomy alone will explain. In short, I thought that Beatson's cases went to show that thyroid was of no use in scirrhus of the breast. It is, however, right to say that Dr. Beatson came to an opposite conclusion. The remarkable case of Recurrent Carcinoma of the Breast entirely disappearing under Thyroid Extract continued for Eighteen Months, published by Page and Bishop, made me feel that perhaps thyroid acted very slowly, and that its effects could not be seen during a month's exhibition. It may be so; but careful reading of the case does not support this view strongly. The patient was aged 61. After thyroid had been administered some time, the nodules ceased to grow and seemed softer; but later a fresh one appeared and grew, and none seem to have disappeared during fourteen or fifteen months. Then the patient disappeared, but continued taking the drug. At the end of eighteen months she turned up again, all the nodules having gone in the interval—I should imagine very much to the astonishment of both doctor and patient, who must have been quite unprepared for such a development. The result does not read like that of the steadily-continued or increasing action of a drug.

The following are the results of treatment with thyroid in my cases:

In Case II, when nodules began to reappear after the oöphorectomy, the patient having gained flesh up to the commencement of the thyroid treatment, the drug was given for about a month, a dose of gr.xx per diem being reached. The patient lost 5 lbs.

In Case VII the administration of thyroid was begun in June, and was continued with great pertinacity almost to death in September. Full details are given in the case. Perhaps some relief of pain and some inhibition of growth of the fungating masses were results of the treatment.

Mrs. K., 50, had a rather large and quick-growing cancer, infiltrating breast and involving skin diffusely; freely removed in November, 1897. In June, 1898, she returned with several nodules in skin and fat in and around scar and a diffuse redness, with slight infiltration spreading far towards axilla; general condition still good. She was given thyroid gr. x to gr. xv a day. No improvement was noted, but slow increase went on. In September she developed pleurisy and died quickly. There was no *post-mortem* examination.

Mrs. B., 52, whose mother died of cancer of breast, had a large quickly-growing cancer of breast, involving skin, freely removed in November, 1897 In May, 1898, she had recurrence in middle of scar and extending far out into axilla. I put her on 7½ gr. of thyroid a day, and after a fortnight increased it to 15 gr.; but after eight or ten days she became so depressed that she had to give up for a week; then she started 10 gr. a day, and after three weeks of this—that is, seven weeks from beginning of treatment—she and her nurse agreed that the disease had not increased lately, and the patient maintained that the mass was softer. At a later period, after a three weeks' interval, both the patient and her medical attendant, Dr. Victor Sapp, were convinced that the re-exhibition of thyroid produced softening of the cancerous infiltration about the scar. With this exception no effect of the thyroid on the growth was noted. From 10 to 15 gr. of the drug were taken daily with few intervals; it seemed to cause great depression and vomiting, but these may have been due to the disease. The patient is now (December 29th, 1898) bedridden, with a good deal of local disease ulcerating centrally; a huge liver, with jaundice and ascites, and a large mass in right iliac fossa.

Mrs. N., 63, very stout, had a large tumour of breast, with a deepish ulcer, discharging freely, running into it; many nodules in skin over breast, one large and almost bursting; enlarged axillary glands. She took 3 to 6 gr. of thyroid daily irregularly; after two months the ulcer completely healed, and now, after four months, there has been little or no local increase. The large nodule remains *in statu quo*. There is reason to fear that she has growths in the liver.

These are all the cases of cancer in which I have tried thyroid. They afford little evidence that it has any action upon the disease.

ON FIBROMYOMATA OF THE VAGINA.

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HAVING met with two cases of this rare and somewhat important condition, I have reported them in full; and having searched the literature on the subject, have been able to add 27 additional cases published since 1882, when Kleinwächter wrote his standard dissertation, Die bindegewebigen und myomatösen Neubildungen der Vagina.[1]

CASE I (No. XXVIII in Bibliography).—Mrs. B., aged 36, with no children, was first seen in 1890 for pain during coition and reflex mammary and gastric irritation. On vaginal examination a small tumour was felt in the left and anterior fornix and just below the level of the os uteri externum. The pelvic condition was otherwise normal. The swelling was sessile, smooth, painless, and covered by healthy mucous membrane, which could be freely moved over its surface. In size the tumour appeared to be that of a shelled walnut. A diagnosis of vaginal cyst was given, and under an anæsthetic an incision was made, and the nature of the swelling discovered; it was easily enucleated, and the cavity closed by deep and superficial sutures, and the vagina stuffed with gauze. Recovery was easy and rapid. On microscopical examination, the growth was found to be partly myomatous and partly fibrous, the latter predominating. For some reason, all the local and reflex symptoms above mentioned disappeared, and have not recurred.

CASE II (No. XXIX in Bibliography).—Miss A., aged 49, had been a martyr to neuralgia and rheumatism all her sexual life, and had been more or less continuously under medical care. Three years before I first saw her (February 5th, 1898) she complained to Dr. Ferris, her medical attendant, of something pressing upon her bladder. An examination showed a small, apparently fluctuating, swelling in the anterior and lower vaginal wall. This growth had slowly but continuously increased in size from that time. Up to three or four years ago her catamenia were regular and normal, but since then she has been very irregular, long periods of amenorrhœa alternating with a few days loss. A few weeks (three or four) ago she noticed an extremely offensive discharge coming from the vagina, and it was only after much vaginal douching that the smell was overcome; this has reappeared from time to time. It was thought that perhaps the growth had ruptured and some of its contents found exit *per vaginam*. The patient had steadily declined operative treatment. She complains at present of the constant desire to micturate and the offensive discharge. She has made flesh, and has nothing generally wrong except her extreme neurosis. Examination by hypogastrium revealed nothing beyond the sensation of a swelling in the median line rising just above the brim of the pelvis.

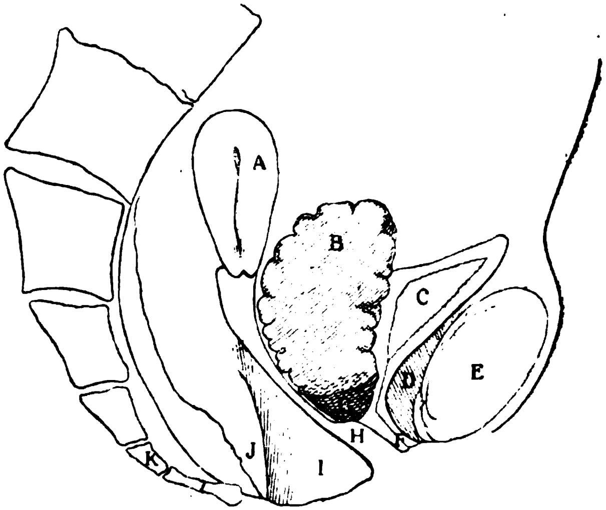

Fig. 1.—Case II; A, uterus (retroverted); B, tumour; C, bladder; D, retropubic fat; E, symphysis pubis; F, urethra; G, discoloured portion of tumour; H, vagina; I, perineum; J, rectum; K, sacrum.

Per Vaginam.—The anterior half of the pelvis was occupied by an elastic, almost fluctuating, smooth growth extending from just above the internal urethral orifice to high up towards the pelvic brim; it was beneath the mucous membrane of the anterior vaginal wall. It encroached upon the vaginal canal so much, that it was only after much patience and difficulty that the index finger could be pushed up sufficiently high to reach the cervix uteri. With the sound in the bladder and finger in the vagina the growth could be limited to the pelvis and the anterior vaginal wall. The mucous membrane covering it was movable over the tumour. Apparently no connection existed with the uterus. The tissues covering the lower portion of the swelling were purple in colour. No opening could be detected in the walls of the capsule. An anæsthetic was given and the above-mentioned physical signs corroborated. The uterus, of normal size, was found lying just beneath the sacral promontory slightly retroverted and impacted. The tumour gave to the touch the sensation of a tense cyst containing fluid from which a small amount had been withdrawn, leaving the walls slightly flaccid. The offensive discharge was apparently due to menstrual fluid retained in the vagina above the tumour and not to escape of cyst contents, as was at first thought possible.

Diagnosis was extremely difficult, and appeared to rest between an impacted pediculated fibroid (subserous), a rare form of anterior perimetritis, a vaginal cyst, a dermoid ovarian cyst, or, lastly, a vaginal fibromyoma. It was decided to attempt removal by the vaginal route.

Operation.—After antiseptic douching and the usual preparation, the patient was placed in the exaggerated lithotomy position and the vaginal mucous membrane over the lower portion of the growth incised longitudinally. No fluid escaped, and the tumour was obviously solid and encapsuled. It was shelled out with much difficulty and free bleeding. A sound passed 6 inches into the cavity in an upward direction after its removal, the blunt end being easily felt *per hypogastrium*. Several forceps were left attached to the bleeding points, the cavity was swabbed out with iodine liniment and then stuffed with gauze. Recurrent hæmorrhage occurred before the patient recovered consciousness, necessitating application of more forceps. She made an easy and afebrile recovery, but her neurotic symptoms have remained unaltered.

Pathological Report (by Mr. G. Lenthal Cheatle).—A tough, encapsuled, and lobulated tumour, weighing 14½ oz., 5 inches in length and 3½ inches in breadth in its upper portion; its surface smooth, its shape triangular, the outline somewhat resembling a map of Great Britain. In two or three localities one marginal lobe was folded back upon the surface of the growth, and there had become attached by loose and delicate connective tissue, suggesting that possibly at the time of its removal the neoplasm was developing in a confined space. The tumour gives an indistinct sense of fluctuation to the touch.

Microscopical Examination shows that the cells in shape and arrangement very closely resemble those observed in uterine fibroids—a mixture of fibrous and muscular elements.

As the result of a very thorough search through the literature of the subject Kleinwächter collected 53 cases; he includes, quotes, and criticises in his list Neugebauer's 35 collected cases[2] and Briesky's 37 cases[3]; hence with the 29 cases of which I have collected details, there are 81 which may be fairly considered. The first recorded instance of this condition appears to have been in 1773 (Jakob Denys), and some of Kleinwächter's cases must be looked upon with suspicion even after his very thorough scrutiny; his paper so thoroughly exhausts the matter at his disposal up to 1882, that I propose only here to critically examine the 29 cases I have been able to collect.

The view held by Kiwisch[4] that most of the vaginal fibromyomata originally arise from the uterus, and subsequently lose their connection with that organ, is denied by Kleinwächter, and in none of my cases has there been any apparent connection. In one only (Hastenpflug, Case XIX) was there a uterine fibroid also present. These tumours seem to occur as fibromata, myomata, or a mixture of the two. The most common certainly appear to be fibromyomata (19 cases).

Age.—This is mentioned 24 times, the youngest patient being 29, the eldest 52, 2 being above 50, 8 above 45, and 6 above 40. These figures support Kleinwächter's opinion that fibromyomata of the vagina are met with chiefly in the later sexual period and at the menopause. At the same time 3 fairly authenticated cases by Traetzl,[5] Wilson,[6] and Martin[7] occurred in infants aged respectively 1¼ and 2½ years, and in a newly born girl.

Size varies very much; the largest is mentioned by Gremler,[8] which weighed 10 lbs. 2½ ozs., the tumour hanging like a large flask from the vagina by a pedicle two fingers thick. In two instances the tumour was of the size of a child's head (Cases XII and XV), and every size from a large apple to a lentil has been noticed, the most common being that of a shelled walnut.

Seat.—These growths are always single, and may be pediculated or sessile; in all probability they are invariably the latter during the earlier part of their life-history. The anterior vaginal wall is most commonly affected, and in any part from the urethral orifice to the fornix. Out of 39 of Kleinwächter's cases in which the seat is mentioned, it was 25 times on the anterior wall; and of my 29 cases, 23 times, and either to the right or to the left of the median line.

Degenerations.—Gangrene of the vaginal mucous membrane covering the tumour occurred in five instances (I, XII, XVIII, XXVI, XXIX), and two interesting changes in the tumour itself have been recorded, namely, calcification and formation of hæmatoma, in the substance of the growth. In the former (Strassmann's case, XIII) the patient had a year and a-half before swallowed a pin, and for some months had had stabbing pain between the vagina and anus, which she attributed to the point of the pin. On examination, immediately beneath the mucous membrane of the vagina a lobulated hard body, the size of a lentil, was felt; on enucleating it, it was found to be a fibroid undergoing calcification and in no way connected with the pin. In Hofmokl's case (XV) the tumour was aspirated, and pure blood withdrawn, and on removal of the tumour there was found a roundish cavity with rough walls of fibromyomatous tissue; he considered this an instance of a true hæmatoma.

Symptoms must necessarily depend upon the size, situation, and rapidity of growth of the tumour; any pathological changes, such as calcification and sloughing, must also be borne in mind. The rate of growth is variable—as a rule very slow. In Case III it occupied 10 years in attaining to the size of a hen's egg, while in Case XXV it had grown very slowly for 4 years, then suddenly increased in 6 months to twice its size. In the second of my cases the tumour had been known to exist for at least 3 years. In 5 cases the tumour gave rise to no symptoms whatever, and in 2 others the patient applied for relief because she felt a "lump." Other symptoms noted were difficulty in micturition (5 times), dyspareunia (4 times), rectal obstruction (3 times), backache, dragging pain, difficulty of locomotion and reflex disturbances are also mentioned. The effect on menstruation is slight. In those cases in which metrorrhagia was complained of it might well have been due to irregular bleedings from the ulcerated tumour surface. In the 29 cases this effect was recorded 24 times, and in only 5 was there menorrhagia. Kleinwächter is inclined to the opinion that there is a tendency to amenorrhœa in these cases. The liability to conception appears to be unaltered, and pregnancy has no apparent effect on the growth of these tumours similar to that observed in uterine fibromyomata. During labour the growth may obstruct labour and the puerperium may be complicated by sloughing of the tumour itself[9] or of the vaginal wall, producing a vesico-vaginal fistula (Case I).

Differential diagnosis must be made from vaginal cyst, pediculated subserous uterine fibroid, primary malignant disease. The first of these is frequently a source of error, tapping being productive of a negative result. In my second case (XXIX) fluctuation certainly appeared to be present, and after removal the tumour gave a peculiar sensation as of fluid in a cavity with lax walls.

Treatment.—Should the growth be small and observation show it to be quiescent, no operative interference is necessary. When, however, steady increase in size, or pediculation, or sloughing is noted, surgical treatment is absolutely necessary. Many methods have been resorted to, among them torsion of the tumour, ligature of its pedicle, galvano-cautery, enucleation and suture, and the *écraseur*. An ideal treatment seems to be incision and enucleation with deep and superficial suturing in sessile growths, and ligature of the pedicle in portions, and removal in polypoid cases. Strict asepsis is obviously necessary. Of the 29 cases mentioned in 21 incision, enucleation, and gauze packing was resorted to with the best results. In a polypoid tumour weighing 1½ lb., and entirely filling the vagina, Storer (Case XXIII), after attempting to cut through the pedicle with a wire *écraseur*, succeeded with a chain, and found that all attempts to remove the free growth from the vagina were ineffectual; he therefore "passed the forearm into the rectum after forcibly dilating the sphincter, and by downward pressure from above delivered the tumour." In Case XVIII the tumour was delivered by the obstetric forceps, and by the finger in the rectum; the pedicle was then ligatured in pieces, and the tumour removed; it was in a state of sphacelus, and was 16½ cm. in length. I have not met with any case in which abdominal section was found to be necessary. Torsion is dangerous, as it is quite easy in tumours situated in the anterior wall to draw the bladder into the pedicle, and so produce a vesico-vaginal fistula. A word of warning should be given when the tumour is enucleated; the parts are very vascular, and often recurrent hæmorrhage takes place, as in my second case.

Conclusions.—Vaginal fibromyomata are invariably single and usually slow growing; their situation is most frequently upon the anterior vaginal wall, and they may be sessile or pediculated. They have practically no effect upon menstruation, conception, or the course of pregnancy, but may lead to serious dystocia. Symptoms depend upon size and situation, and are usually due to direct pressure exerted on neighbouring viscera. Sloughing is the most common change in the tumour during the life-history. Removal is best carried out by enucleation and suture, or stuffing the sac with gauze.

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AFTER-EFFECTS OF ABDOMINAL SECTION.

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AT the meeting of the Obstetrical Society held in October, 1897, Dr. Herbert Spencer pointed out that intestinal obstruction from the adhesion of the intestine to the stump after ovariotomy was by no means rare, and a month later at the Harveian Society Mr. Doran drew attention to the fact that hernia of the abdominal cicatrix frequently followed laparotomies.

These two important statements are of such interest to all practitioners that it has been my endeavour to gather together as accurately as possible statistics of these complications in women patients from the records of general hospitals throughout the country. Thanks to the great courtesy of members of the staff and of the surgical registrars of 49 hospitals, the following information has been obtained. Several country hospitals were invited to send statistics, as it seemed probable that cases of acute intestinal obstruction would be treated in them, even though the primary operation had been done in a hospital in some large centre, as London, Edinburgh, or Dublin.

During the last four years 39 cases of ventral hernia and 12 cases of acute intestinal obstruction have been traced.

The cases of ventral hernia do not include any that may have been seen in the out-patient departments, but only those that came into the wards for treatment. The date of the occurrence of a ventral hernia or of acute intestinal obstruction after the original operation is of interest as showing approximately the length of time that the giving way of scar tissue or the formation of fibrous bands may take. It has not been possible to get all the data, but in 26 out of the 39 cases of ventral hernia they are as follows:

2	cases occurred	14	years after the	original laparotomy
1	,,	10	,,	,,
1	,,	9	,,	,,
1	,,	8	,,	,,
1	,,	7	,,	,,
2	,,	5	,,	,,
3	,,	4	,,	,,
3	,,	3	,,	,,
1	,,	2½	,,	,,
2	,,	2	,,	,,
2	,,	1½	,,	,,
3	,,	1	,,	,,
1	,,	5	,,	,,
1	,,	4	,,	,,
2	,,	a few months		,,[1]

It would be interesting to learn in what manner the abdominal wound had been closed in these cases, whether in one or more layers, the number of cases in which a drainage tube was used, the length of rest in bed, and the use of an abdominal belt for months or years following the operation. Eighteen of the cases occurred, it will be noted, under five years, and seven in one year or under.

The dates of the cases of intestinal obstruction were as follows:

1	case occurred	14	years after the	original laparotomy
1	,,	5	,,	,,
3	,,	4	,,	,,
1	,,	1	,,	,,
1	,,	6 months	,,	,,
2	,,	2	,,	,,
1	,,	15 days	,,	,,
1	,,	11	,,	,,
1	,,	10	,,	,,

The two cases which occurred two months after abdominal section were (*a*) a case of perforated ulcer of the intestine, and (*b*) a case of sarcoma of the ovary. In neither case, therefore, was the peritoneal cavity in as sound a state as is found in the majority of cases of abdominal section, and one cannot but question whether sepsis was not responsible for the cases occurring within fifteen days of the operation.

Dr. John Phillips gives an account of 3 cases of acute intestinal obstruction after abdominal section, the obstruction occurring one, four, and seven years after the original operation.[2]

I am greatly indebted to Mrs. Scharlieb, M.D., M.S., and to Mrs. Stanley Boyd, M.D., for permission to look through the casebooks at the New Hospital for Women, in order that I might trace the after-histories of patients who had had abdominal section performed there.

Information has been received of 88 patients, and, amongst these, 3 have returned for further treatment—1 for acute intestinal obstruction and 2 for ventral hernia.

The history of these 3 cases is as follows:

Mrs. T., aged 22, was operated upon in 1892, when a mass was removed which consisted of the right ovary, considerably enlarged, and containing several abscess cavities and an irregularly distended long sac, which appeared to be the Fallopian tube. The patient was very ill, with high irregular temperature for some time, but eventually she completely recovered, and left the hospital on the fifty-fifth day after the operation. From that time to January, 1897, her health was good. On January 12th, 1897, she complained of pain in the abdomen: on the 15th she took to her bed at home, when sickness began and was frequent. No motion or flatus passed after the 18th. Her medical man advised her going into a hospital, and on January 21st she was brought to the New Hospital for Women with all the symptoms of acute intestinal obstruction. She was almost moribund on admission, and died two hours later, no operation being performed. At the *post-mortem* examination the intestines were found much distended and reddened, there were recent adhesions between the parietal and visceral layers of peritoneum, and also between the coils of large and small intestine. A firm white band attached the centre of the transverse colon to the back of the anterior abdominal wall, causing a bend and slight constriction in the colon. A loop of small intestine about 13 feet from the duodenum hung down into the pelvis, and was constricted by a narrow white fibrous band. The band passed round the loop of intestine, and was continuous at one end with the mesentery, and at the other with the peritoneal coat of intestine just beyond the part involved by the loop. The end of the ileum was found adherent to the abdominal wall in the neighbourhood of the iliac fossa and the stump of the right broad ligament was fixed at the same spot. The cæcum was bound down by dense pale adhesions. There were adhesions between the uterus and bladder. The left ovary and tube were fixed by adhesions to the pelvic wall in the neighbourhood of the iliac vessels.

The adhesions in this case were dense and numerous. The question arises as to what adhesions were formed before the operation in 1892 was undertaken. The tumour removed contained abscess cavities, and one might reasonably suppose that inflammatory conditions were present in the neighbourhood of the right ovary, which was removed. The patient's convalescence was long, and gave rise to much anxiety, and possibly it may have been during this time that adhesions were formed, which subsequently became dense and fibrous.

The two cases of ventral hernia are as follows:

Mrs. L., laundress, aged 45, very stout, was operated on for double ovariotomy in 1888; she made a good recovery, and kept in excellent health, and did her work till 1894, when she first noticed a swelling in the middle of the scar about the size of a walnut. This increased in size, and she suffered from griping pain till she returned to the hospital in 1895, when she was readmitted. At the operation it was found that the omentum was extensively adherent to the parietal peritoneum under the scar. The patient made an excellent recovery.

A. D., a dwarf with contracted pelvis, aged 30, had Cæsarean section performed at full term in 1895. She recovered well. She was readmitted in 1896, suffering from profuse losses, when an abdominal hysterectomy was performed. In 1897 she returned with a ventral hernia in the middle of the scar, which she was anxious should be dealt with. At the operation several coils of intestine were found adherent to the parietal peritoneum and to one another. She made a third good recovery, and is now in excellent health, earning her own living.

The following tables give the after-history of the patients who have been traced:

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[1] *Lancet*, November 27th, 1897. [2] *Lancet*, 1892.

No.	Date.	Immediate Result.	Ultimate Result.
			Single Ovariotomies.
1	1888	Excellent	Health very good.
2	1888	,,	Returned with ventral hernia in 1895.
3	1893	,,	"I have not had good health; never free from pain, especially in the lower part of my back."
4	1894	,,	"I have had very good health since my operation."
5	1894	,,	Very good health: earns her living by mangling.
6	1894	,,	"I have no pain, but much general weakness, which makes one think of all kinds of imaginary diseases."
7	1894	,,	"Since my operation I have had very good health."
8	1894	,,	Much better since operation.
9	1894	,,	"My health has been fairly good."
10	1895	,,	"I have enjoyed the best of health since my operation."
11	1895	,,	Has had excellent health since operation.
12	1895	Thrombosis of veins of left leg	"I am fairly well in health, but my leg still troubles me very much."
13	1895	Excellent	"I have had excellent health since the operation."
14	1895	,,	Health excellent.
15	1895	,,	A second tumour has formed.
16	1896	Thrombo- of veins of leg	Health excellent.
17	1896	Excellent	"My health has been quite good since the operation."
18	1896	,,	Good health since the operation; birth of healthy child 9 months ago.
19	1896	,,	Health before operation poor; now health excellent; 7 months pregnant.
			Double Ovariotomies.
20	1892	Excellent	Excellent health since 1893.
21	1893	,,	"I have had great relief since the operation, but I am not very strong."
22	1893	,,	Died of cancer of the uterus in April, 1894.
23	1894	,,	Has occasional numbness down the left side.
24	1895	,,	"My health has been fairly good, and I continue to get stronger. I still have hot flushes rather frequently."
25	1895	,,	Health excellent.
26	1896	,,	Suffers from constipation, asthma, and occasional flushings.
			Salpingitis and Ovaritis.
27	1893	Excellent	"I have had years of life and freedom from pain from the agony I endured."
28	1893	,,	"Owing to the splendid operation I have been quite cured."
29	1894	,,	General health fair.
30	1894	,,	"Before operation never free from pain; now no pain."
31	1894	Prolonged convalescence.	"I still suffer very considerably from weakness in the abdomen."
32	1894	Excellent	Verv good health now.
33	1894	,,	Excellent health.
34	1895	,,	Continued pain. Second operation, when left ovary was found bonnd down by adhesions; this was resected. The pain continued, and as further operation was not advised, patient went to another hospital, where she was operated upon and died a few days later.
35	1895	,,	"I now enjoy very good health."
36	1895	,,	"Since the operation my health has much improved."
37	1895	,,	In excellent health.
38	1895	,,	"Since my operation I have enjoyed very good health."
39	1895	,,	Health good but pains in head.
40	1895	,,	Excellent health.
41	1895	,,	General health fair.
42	1895	,,	"My health is much better. I am growing quite stout.
43	1895	,,	Has attacks of sickness, with headache and feet swell.
44	1896	,,	General health fair.
45	1896	,,	General health excellent.
46	1896	,,	"I am better than formerly."
47	1896	,,	General health good.
			Abdominal Hysterectomy.
48	1893	Excellent	"My health was weak for two years, but now I am in good health, and am manageress in a busy hotel."
49	1893	,,	General health fair.
50	1894	,,	"I have better health now than I had for six years before the operation."
51	1894	,,	Never feels well; worries about nothing.
52	1894	,,	"My general health is fairly good."
53	1894	,,	"Since the operation I have been perfectly well."
54	1895	,,	"The operation was most satisfactory in every way. My health has been quite good since."
55	1895	,,	General health good.
56	1896	,,	"I feel very well indeed."
57	1896	,,	Health good. Works hard in the Salvation Army.
58	1896	,,	Health excellent.
59	1896	,,	General health good. Returned with ventral hernia in 1897.
60	1896	,,	General health poor. Much pain in back.
			Fibro-cyst of Uterus.
61	1894	Excellent	"I think my operation has been fairly successful, though I am not very strong."
			Exploratory Operations.
[illegible]	894	Excellent	Excellent.
[illegible]	894	,,	Has been in very good health since the operation.
6[illegible]	895	,,	Died in 1897. Cause unknown.
6[illegible]	1895	Not relieved	Died of bronchitis a year later.
66	1896	Excellent	General health good.
			Hysteropexy.
67	1895	Excellent	"Since my operation my general health has been good."
68	1895	,,	Excellent health. Birth of boy 3 months ago, excellent recovery.
69	1896	,,	"I have not had so much pain, but I have not felt so strong."
70	1896	,,	"My general health has much improved."
			Cæsarean Section.
71	1895	Excellent	"I feel as well now as ever I did in my life."
72	1895	,,	Readmitted in 1896 for abdominal hysterectomy.
			Cyst of Corpus Luteum.
73	1894	Excellent	Health excellent.
			Umbilical Hernia.
74	1894	Excellent	"Excellent till the last four or five months, when I have had some abdominal pain."
75	1895	,,	"The operation was quite successful."
			Various Causes.
76	1892	Protracted convalescence	Readmitted in 1897 with acute intestinal obstruction; died soon after admission.
77	1892	Excellent	Health better than for six months prior to operation, but cannot say it is good.
78	1894	,,	Health good.
79	1894	,,	Had a second operation at another hospital a year later.
80	1894	,,	Health excellent.
81	1894	,,	Excellent health.
82	1894	,,	"My health is very good."
83	1895	,,	"My health has been quite as good since the operation."
84	1896	,,	Excellent.
85	1896	Malignant of peritoneum	Died 3 months later.
86	1896	Excellent	General health very good.
87	1896	,,	Excellent for one year, then contracted gonnorrhœa, and developed double pyosalpinx. Operated on at Charing Cross Hospital, 1898.
88	1897	,,	Health excellent.

ON LATERAL CURVATURE OF THE SPINE: ITS PREVENTION AND TREATMENT.

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II.

IN a previous communication on this subject[1] I defined four forms of pelvic deviations, pointed out their diagnosis, and ended with a strong recommendation—almost had I written exhortation—to watch lest the youth of either sex adopt one or other of these malpostures. On these same lines I must go a little further. The spine has for its basis the pelvis; every movement of which, even though momentary, is accompanied by a compensating change in position of vertebræ; were this not so we could neither walk, run, ride, or take any sort of active exercise, because without that adaptability of the spine, the body's centre of gravity could not be shifted from side to side, backward, or forward, so as to lie over the constantly changing point of support on the floor or saddle. That is to say, when in any of these exercises the pelvis assumes for a time an oblique, a sideways, or twisted position, the spine must during that time so curve or rotate as to adapt itself to the temporary posture of its base. If, however, such posture be not merely a momentary but a permanent condition, then that curve or rotation of the spine will be equally persistent. Therefore, if a child or adolescent acquire a habit of standing or sitting with the pelvis awry, as in the illustrations to my last paper, the corresponding curve or twist of the spine, intended only as a temporary and alternating attitude, becomes a constant or almost constant position, followed later by the muscular and ligamentous changes, already more than once alluded to, which fix and render so recalcitrant the later stages of scoliosis.

This is the genesis of by far the larger number of lateral curvatures; the exceptions will be mentioned in the sequel. What, however, I now desire strongly to accentuate is, that given such intelligent care as shall detect the various pelvic deviations in their early commencement, spinal curvature can be prevented; in more technical surgical language there is a prophylaxis of scoliosis, one that with a little assiduity and a sufficient comprehension of the malpostures to be combated succeeds within a reasonably short time. I propose now to examine these different measures as applicable to the four modes of pelvic deviation.

Permanent Pelvic Obliquity (see Fig. 1 in my previous paper) is, in the absence of joint disease, a passing attack of infantile paralysis, or some form of talipes, the result of defective growth at one of the epiphysal junctions generally of the lower, femoral one. The deficiency or sluggishness of increase may originate from a blow or fall so slight as to be overlooked or forgotten yet sufficiently severe to derange the nutrition of the proliferating cartilage.[2] More frequently the irregularity is due to an unexplained idiosyncrasy of growth analogous to that which in some persons causes the nose to sit sideways on the face; in such cases it nearly always happens that the limb which grew quickest ceases to grow first, and thus at the period when the epiphyses join the length of limbs becomes even. While the defect lasts, however, its influence on the spine must be obviated by adding one, sometimes two, thicknesses of leather to the heel of one boot, right or left, according to which limb is the shorter; also by the use of the sloping seat for two or three periods of about twenty minutes daily. A permanently oblique pelvis connotes a different angle between the transverse axis of the pelvis and the two thighs, that on the longer side being the more acute. A slight inequality in these angles is not productive of evil; but when the difference of length of limb is pretty strongly marked, the above described angle, therefore, much diminished the adductors of the thigh are very apt to become shortened, a condition likely to interfere with subsequent rectification. This complication may be thus prevented. Let the patient stand in drill posture, but with the arms akimbo, then with knee straight and with toe pointed directly forward, thus avoiding outward rotation of the thigh, the shorter limb must be thrown straight outward as high as can be managed.

Habitual pelvic obliquity (see Fig 2 in previous paper) is a trick which those continually with the child can, when the defect has been pointed out, correct; a task which the surgeon must in the nature of things delegate to them. It only requires watchfulness and strict, perhaps even stern, injunction. Should the droop of one side of the pelvis be strongly marked and constant, the patient should be made to reverse it; that is, if he be in the habit of using continually for ordinary station the right limb, he should be made to stand for a certain time on the left one, letting the right instead of the left side of the pelvis droop. The place of the unemployed right foot on the floor is important if only the remedial pelvic obliquity is contrary to the habitual one; for this same object the sloping seat may also be used. The number of times per day, and the length of each period, must depend on the degree of usual pelvic droop, the bodily strength, and general conditions of health. We must not overlook the fact that the position with the one knee in front and slightly crossing the other may be assumed by an adolescent girl to ease pain due to ovaralgia or congestion with dysmenorrhœa or amenorrhœa; such posture therefore should suggest questions to her mother. Girls with or without these troubles often, though by no means invariably, stand with the unemployed knee in front of and somewhat crossing the other. No girl with that form of obliquity, whether habitual or permanent, which consists in a droop of the left side of the pelvis, should be permitted to ride on horseback in the usual position; namely, with the right knee in the pommels. If the obliquity be strongly marked, she must ride on the other side of the horse, the left knee in the pommels. In less marked cases, or when the above method has had sufficient effect on pelvic malposture, she may alternate, using one day a right-handed and the next a left-handed saddle. Indeed, if a girl be growing rapidly, and be at the same time somewhat anæmic, it is wise even if she have no pelvic deviation to let her thus ride alternately on right and left side of the horse.

Amesiality of the pelvis (see Fig. 3 in previous paper) is more difficult of correction, for so perverted does the patient's neuro-muscular sense, after a little persistence in this attitude become that to her the one-sidedness appears straight, while if the surgeon with his hands arrange the figure into a straight position she feels excessively crooked. The most important point in the correction of this aberration is a change of the patient's neuro-muscular sense of balance. I effect this in the following manner: a mirror is so placed in front of the patient that she sees her reflection from the neck down to below the umbilicus. In dealing with children the whole figure should be stripped, but in the case of adult girls there is no need for complete nudity; the device can be demonstrated simply on the upper part of the figure. Arranged thus, I place a plumb line at the centre of the episternal notch, cause her to hold it there with a finger tip, and show her how, in consequence of pelvic amesiality, the cord falls to one side of the xiphoid cartilage and of the umbilicus; with children, also, of the pubes and knees. I then with manual pressure on the prominent side of the pelvis and on the side of the chest, just below the axilla straighten the figure; show her then how the cord falls over these median landmarks, and beg her to study well her sensations and thoroughly to embue her mind with the sensation of rectitude. I then ask her to procure a plummet, with about 4 feet of cord, to go through the exercise in front of a sufficiently large mirror every morning before putting on her clothes; to observe that the cord lies centrally on all parts of the body, from the top of the sternum to below the knees, and to acquire a mental and bodily habit of the straight position. A valuable aid is the lateral sling; the patient with amesiality to the right—the most common of this malposture—lies with the right hip in the webbing loop, the thighs should be somewhat, but not irksomely, ex-

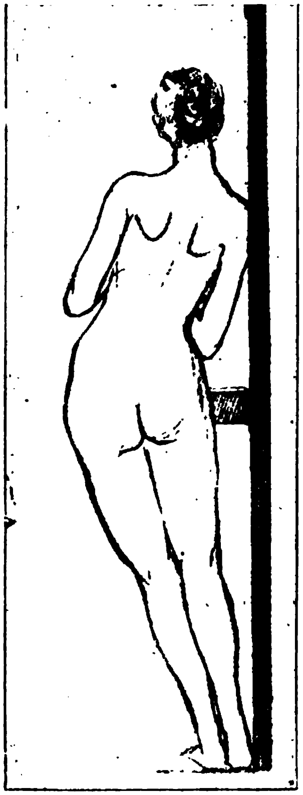

Fig. 5.—Wall exercise for right pelvic amesiality.

tended, the head, but not the shoulders, supported by a pillow. Recumbency in the sling may take place on a rather firm sofa, or, failing that, upon a rug on the floor. In this position the patient can read or learn by rote. A more efficacious remedy, to which I must hereafter again allude, is what, for want of a better name, I have termed the "wall exercise" (see Fig. 5). The patient stands with the right side to and the shoulders at a right angle with the wall (still taking right amesiality as the type), places that foot (heel and toe) against it; then, to get the arm out of the way, she puts her hand near the coracoid of the opposite side. Her mother, or other helpmeet, now takes a block of wood, or a book about 2 inches thick and 5 long, and, according to the stature of the patient, from 2½ to 4 inches broad. One of the long sides should be rounded. She places this block with the rounded side midway between the great trochanter and the crest of the ilium, then, placing her hand on the patient's side, about where the cross is drawn in the diagram, she upholds the figure while the girl places her left foot (heel and toe) against the right one. The exercise is not to be done nude, but before the stays or much clothing is put on in the morning; it may be repeated in the evening, and, if the stays be slight without bones or steels, also in the middle of the day. The position cannot be maintained more than three minutes at first—after a little practice, for five.

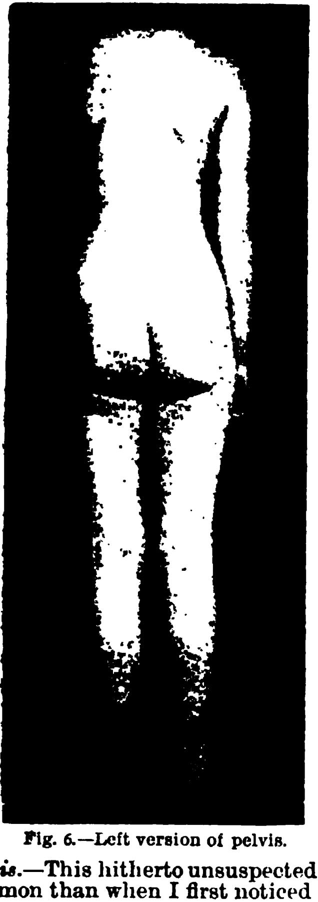

Fig. 6.—Left version of pelvis.

Version of Pelvis.—This hitherto unsuspected position is very much more common than when I first noticed it I could have imagined, and permission must be granted me to break away for a few minutes from the subject of treatment in order to complete the short description given (Fig 4, British Medical Journal, January 21st, p. 138) in my former paper. The illustration showed a strong example of the twist, but the condition was combined with amesiality and an advanced curvature. That particular figure being chosen in order to show how the spinal condition follows on and is caused by the pelvic aberration. Yet in order the better to demonstrate that latter defect it seems well to show it while as yet it is an isolated or almost isolated fault, Fig. 6 is thus chosen. The girl though developed is not yet 14 years old; for some five months her parents have suspected that something was wrong with her figure, but she was only brought to me a week or two ago. The pelvic version was at once evident, and is well seen in the annexed photograph. The arrangements for securing a correct rectangular position of camera to patient were given in a previous communication.[3] Succinctly recapitulated, they are these: By means of tapes and cords an accurate isosceles triangle is mapped out on the floor; the patient stands on the base line with its middle point between the heels; at the centre of the lens is the apex. The image must be made to fall on the middle of the ground glass. Thus the line of sight from the lens to the patient's heels must be accurately at a right angle to what should be the transverse plane of the patient's body, if—and this is the vital point—that body be not twisted. The photograph of a straight figure does not show one side more than of the other of pelvis, loin, or back, that is to say, there is an equal breadth of the body to right and left of the middle line.

But if this illustration be examined and the distance between the rima natium and the side outlines right and left of the pelvis be measured with compasses, the breadth on the left side will be found to be very much greater (three-sixteenths of an inch) than that of the right. This is not due to any deformity of the pelvis itself, but simply to the fact that the patient so twists that part of her body that the left side is slewed backwards and presents to the eye or to the camera lens a considerable part of its side surface, while the right, situate too far forwards, shows only a foreshortened view of that aspect. To go further, if now a chair be placed immediately behind the patient and she be told to sit down without looking round or moving her feet, one may see that in sitting the left is behind the right side of the pelvis. This is most plainly demonstrated, not by looking at the back, but by placing the edge of a flat ruler on the patellar ligaments and observing if it lie obliquely.

The effect on the spine of this infelicitous posture of the pelvis is easily understood, if only it be remembered that twist in the same direction of the lumbar spine must accompany pelvic version, and that torsion of vertebræ to the left is part and parcel of left lumbar curvature, such torsion preceding in front of causation if not in time deviation to one or the other side. There are, however, certain other points to be noted, for examination of large numbers of these patients shows that in many of them the upper part of the chest and the shoulder girdle follow the direction of the pelvic version—the left side lying behind the right—while in others these upper parts of the trunk remain straight to the feet, and on what may be called the plane of station indicated in the illustration by the tape-line—that is to say, the upper part of the spine is twisted on the lower to such a degree as to counteract for the dorsal region the torsion that has taken place in the lumbar portion. In my next paper I must revert to and show the effect of these two postures, but at present must return to my more immediate subject—the pelvis—and show how version may be corrected and its ill-effects obviated.

Mention need now only be made of four exercises I am in the habit of using, it being of course understood that in all but really severe cases one or two are only necessary. The most important one is carried out in the sitting posture, in which as already described the deviation begins and may be most readily detected. The correction consists in making the child sit evenly at lessons, especially while writing, when the posture should frequently be tested as also at other times. Likewise it is well even to reverse it, that is, taking her deviation to be the usual left version, with the left knee behind the other she is to sit for fifteen or twenty minutes a certain number of times in the day with the left knee well in front of the right, taking care that the chest be not also twisted. In a standing position my method is this: the patient stands with her back to the wall, heels against it, as also trunk; if her attendant pass her hands behind the body she will find in left version, that the right gluteal region does not touch, or only very lightly touches, the wall, the left being in firm contact. A small but rather hard cushion is now placed behind the left ilium and contact of the right side, insured by manual pressure on the iliac spine, in some cases also on the shoulder. After a few times the patient, if amenable and trustworthy, can dispense with this aid and pressure, but at first it is necessary. The thickness of the cushion must correspond to the severity of the deviation. Another exercise which may be described here, though I also use it as a remedial measure when spinal curvature has already appeared, may take two different forms. For left version (1) the patient lies on her left side, the thighs flexed at a right angle to the pelvis, she then rolls the upper part of the body over to the right so that while the pelvis is still quite on the side, the shoulders, chest, and as much of the loin as possible lie almost on the back. (2) The patient lies with thighs similarly bent on her right side and rolls the upper body-segment, so that this portion reposes on the front, not merely on the chest but also as much of the abdomen as she can manage. This is less comfortable than No. 1, but more potent, and its power may be increased temporarily if an assistant press gently with the hand the left lumbar region down towards the floor.

These various measures if taken alone must be considered only as prophylactic of curvature; they can, however, be also used for incipient curves.

NOTE AND REFERENCES.

[1] BRITISH MEDICAL JOURNAL, January 21st, p. 137. [2] Occasionally such an injury resulting in increased vascularity and more rapid growth has a like effect as regards uneven length of limbs, although due to excess instead of to deficiency. [3] BRITISH MEDICAL JOURNAL, 1897, vol. ii. p. 335.

ON THE VALUE OF THE TREATMENT OF DIPHTHERIA BY ANTITOXIN.

BY E. W. GOODALL, M.D.LOND.,
Medical Superintendent of the Eastern Fever Hospital of the Metropolitan Asylums Board.

(*Concluded from p. 200.*)

II.—DIPHTHERIAL PARALYSIS.

I NOW pass on to the consideration of the effects of the antitoxin treatment as it is shown by the behaviour of the cases of paralysis. This is an aspect of the question that has up to the present time been scarcely dealt with by those who have written on serum-therapeutics. But inasmuch as more than one important lesson is to be derived from a study of the facts, I bring them before you to-night.

It is well known that an attack of diphtheria is apt to be followed by a characteristic form of palsy. I say followed because this palsy is more a sequel than a complication of the disease. It does not often show itself before the end of a fortnight from the onset of the local affection of the mucous membrane. It has been shown that this palsy is the expression of structural changes in certain nerve tissues, chiefly nerve endings; and that these changes are brought about by the action of toxins produced by the diphtheria bacilli at the affected mucous surface, and absorbed therefrom into the system generally. If this be true then one would expect that the larger the quantity of toxin absorbed the more likely would paralysis be to follow. Now, from clinical evidence alone I have long believed this to be true. The cases of diphtheria which are severe are those in which the paralytic sequelæ supervene. By a severe case I mean one in which there is extensive and persistent exudation, accompanied usually by certain other symptoms indicative of toxic poisoning, one of the most important of which, from a prognostic point of view, is marked and persistent albuminuria.

For clinical evidence of this I must refer those interested to a paper published in *Brain* for 1895, based on a study of the cases of paralysis occurring at the Eastern Hospital during 1892 and 1893.

Paralysis therefore follows the severe cases, and the severe cases such as I have described them are those in which the toxins are absorbed in large quantities for a considerable time. Experimental evidence points the same way. Escherich, Loeffler, Ehrlich, and Woodhead[24] all concur in stating that the larger the dose of toxin injected into an animal the greater the liability to paralysis. The latter states: "This paralysis occurs more frequently in animals used for testing the strength of antitoxin serum, the greater the multiple of lethal units used in the test dose—that is, there are more cases of paralysis when a theoretically ten-times lethal dose is used than when one is used, and still more when the test dose is again multiplied by ten—that is, when it equals 100."

The incidence of paralysis varies considerably in different series of cases. This is well shown by the following table:

TABLE XII.—*Percentage Incidence of Paralysis in the Hospitals of the Metropolitan Asylums Board.*

	1893. (Non-antitoxin).	1894. (Non-antitoxin).	1805. (Antitoxin).	1896. (Antitoxin).	1897. (Antitoxin).
Eastern	12.1	10.8	16.0	21.4	15.1
North-Western	14.0	11.1	18.9	14.1	12.8
Western	18.1	8.2	17.7	21.5	11.0
South-Western	14.3	18.3	22.0	20.6	20.5
South-Eastern	16.2	20.2	34.7	42.3	45.9
All the hospitals ...	14.3	13.2	20.7	21.3	20.3

The average incidence in non-antitoxin cases is about 14 per cent. It is quite clear from this table that in the Asylums Board hospitals this percentage has on the whole increased since the introduction of the serum treatment. But this has not been a universal experience, as indeed Table XII shows. Professor Baginsky[25] of Berlin, for example, stated in a discussion on diphtherial paralysis at the Edinburgh meeting of the British Medical Association that his own observations had led him to believe that the reverse was the case. I should like to point out that the incidence of paralysis will vary in different hospitals with the average duration of the patients' stay in hospital. In some of the Continental hospitals it is usual for the patient to be sent home very soon after the local exudation has cleared up, hence, doubtless, a low paralysis-rate. With patients kept in hospital five weeks or longer, experience shows that since the introduction of antitoxin the paralysis-rate has gone up. The reason usually given, a very probable one, is that more severe cases survive the early and fatal stages of the disease, and either recover or live sufficiently long to become paralysed. But while it appears from the above facts that under the prevailing conditions we have lost ground in our endeavours to prevent this serious sequel of diphtheria, I wish to bring especially before your notice some other facts which show that if the cases be looked at from another point of view, far from having lost ground, we have made considerable advance. For the following figures I am indebted to my colleague, Dr. Woollacott, who has been at great pains to extract them from the hospital records. They form part of a valuable paper written by him, at present unpublished, which I have had the opportunity of reading. Dr. Woollacott has abstracted the notes of 1,510 cases of diphtheria treated with antitoxin, and uncomplicated by the concurrence of any such disease as measles or scarlet fever. These cases were consecutive cases admitted during 1895, 1896, and 1897.

TABLE XIII.—*Showing Incidence of Paralysis in 1,580 Cases of Diphtheria Treated with Antitoxin at the Eastern Hospital during 1895, 1896, and 1897.*

Day of Disease upon which Antitoxin was first Injected.	Total Number of Cases.	Total Number of Cases of Paralysis.	Percentage Incidence of Paralysis.	Number of Severe Cases of Paralysis not Fatal.	Number of Fatal Cases of Paralysis.
1st	69	4	5.7	0	0
2nd	277	28	10.1	1	0
3rd	340	53	15.5	5	3
4th	323	61	18.8	8	7
5th and later ...	571	147	25.7	28	8
Total	1,580	293	18.5	42	18

It will be noted that of these cases 293 developed paralysis, an incidence of 18.3 per cent. But contrast the incidence of paralysis in the cases treated early with that in those brought under treatment late. When the serum was employed on the first day of the disease only 5.7 of the cases became paralysed; of those when it was used on the second day, 10.1 per cent.; and, further than this, the important fact is brought out that only one case of severe paralysis occurred amongst cases treated on the first two days with no deaths (from paralysis), and only 9 such cases with 3 deaths amongst cases treated on the first three days. Whereas, on the other hand, 51 severe cases with 15 deaths arose amongst those which were not brought under treatment until the fourth day or later. These figures clearly indicate what was hinted at by the figures given concerning the post-scarlatinal diphtheria cases occurring in the Asylums Board hospitals in 1896. Of 483 such cases treated with antitoxin, 34, or 7.0 per cent., became paralysed, a low incidence compared with that amongst the cases admitted directly from outside—namely, 21.3. But 413, or 85.5 per cent., of the cases were treated on the first two days of illness. Only 1 of the 34 cases of paralysis proved fatal.

The only figures I have which show the incidence of paralysis according to the day of admission in non-antitoxin cases are the following, which refer to cases occurring at the Eastern Hospital for the year 1894, immediately before the introduction of the serum treatment.

Table XIV.—*Eastern Hospital: Non-antitoxin Cases, 1894: showing Incidence of Paralysis according to Day of Disease on which Patient was Admitted.*

Day of Disease on which Patient was Admitted.	Total Number of Cases.	Number of Cases of Paralysis.	Percentage Incidence of Paralysis.	Number of Severe Paralysis Cases not Fatal.	Number of Fatal Paralysis Cases.
1st	20	3	10.3	0	0
2nd	100	12	12.0	1	0
3rd	106	10	9.4	1	1
4th	73	4	5.4	0	0
5th and later ...	144	20	13.8	3	3
Total	452	49	10.8	5	4

Compared with Table XIII the above figures show that the date on which the patient is admitted to hospital has no influence on the occurrence of paralysis. But as far as these cases go they may all be treated as early cases; unless one supposes that the patients, before admission to hospital, received no treatment at all. I append, however, a table showing the paralysis cases only, arranged according to the day of disease when the patient was admitted. Only those cases are included in which the duration of the illness was obtained.

Table XV.

	Non-Antitoxin Cases (1892-93-94).				Antitoxin Cases (1895-96-97).			
Day of Disease when Admitted.	Number of Cases of Paralysis.	Percentage on Paralysis Cases.	Number of Cases of Generalised Palsy (not fatal).	Number of Fatal Cases.	Number of Cases of Paralysis.	Percentage on Paralysis Cases.	Number of Cases of Generalised Palsy (not fatal).	Number of Fatal Cases.
1st	12	7.7	1	1	4	1.3	0	0
2nd	44	28.3	3	5	28	9.5	1	0
3rd	31	20.0	2	4	53	18.0	5	3
4th	21	13.5	1	2	61	20.8	8	7
5th	47	30.3	6	7	147	50.1	28	8
	155	99.8	13	19	293	99.7	42	18

The 155 non-antitoxin cases, with 19 others in which the duration of the disease was not stated, occurred among 1,523 cases of diphtheria admitted to the Eastern Hospital during 1892-1894.

The figures in these tables show that the cases treated early with antitoxin are less likely to develop paralysis than those treated early without antitoxin; and also that early treatment in non-antitoxin cases does not influence the character of the paralytic attack. From the two preceding tables it also appears that though paralysis occurs more frequently with the antitoxin treatment, yet the proportion of fatal cases has not altered. Of every 100 cases of diphtheria not treated with antitoxin 1.2 died of paralysis, while of every 100 treated with antitoxin 1.1 died.

The Importance of Early Treatment,

The consideration of the paralysis cases alone shows the importance of beginning the serum treatment early, but the necessity for this is also exemplified by a study of the mortality according to the day of disease upon which the treatment was commenced. This time influence is well illustrated in the Asylums Board Reports. In 1894 (non-antitoxin cases), of 133 patients admitted to hospital on the first day of illness, 30 died, or 22.5 per cent.; and of 539 admitted on the second day of illness, 146 died, or 27.0 per cent.; while for the cases treated with antitoxin in 1895 and 1896, of 143 treated on the first day of their illness, 7 died, a mortality of 4.8 per cent., and of 809 treated on the second day, 121, or 14.9 per cent., died. For 1897, the figures of all the hospitals have not been published, but I have those for the Brook[26] and Eastern Hospitals, which combined are as follows: 66 cases treated on first day with 1 death, or 1.5 per cent.; 317 treated on the second day with 16 deaths, or 5.0 per cent.

In the annual reports of the Asylums Board are contained another series of figures which to my mind show conclusively the value of the antitoxin treatment and the necessity of its early application. For some years past cases of diphtheria have occurred annually in every hospital of the Board amongst the patients convalescent from scarlet fever. This post-scarlatinal diphtheria, as it has been termed, has been the source of much anxiety to the Committees of Management and Medical Superintendents of the different hospitals. The chief reason for this anxiety was the terrible fatality of the disease. It was rarely below 50 per cent. at the different institutions. Of 482 cases collected by Hume[27] from the reports of the various hospitals for the five years preceding 1895, the mortality was slightly over 50 per cent. At the Eastern Hospital for the years 1891-94 it was 61.2, 52.9, 60.0, and 42.8. Well, in 1895 the antitoxin treatment was used in these cases. What has been the result? For that year I am unable to give the results for all the hospitals, the figures not having been published; but at the Eastern Hospital it was 25.0 per cent, at the Northern 5 per cent., at the Western 8 per cent., at the South-Western 14 per cent., and at the Fountain 6 per cent. Not all the cases during 1895 were treated with antitoxin, but even then the reduction in the fatality was sufficiently noticeable. This reduction was continued during the years 1896 and 1897, when the fatality for all these cases in the Board's hospitals was 5.0 and 4.1 per cent. respectively, the majority of the cases during these years being treated with antitoxin.[28]

I am aware that it will be objected that a large number of these were cases in which the diagnosis of diphtheria was made merely on bacteriological grounds, and that such cases were of a very mild character. But I am fully prepared to concede a large number of them: I will let you strike out three-quarters of those which recovered, and retain all the fatal cases, even though some of them were not treated with antitoxin.

This is by no means an unfair concession, for it reduces the incidence of diphtheria on the completed scarlet fever cases for the years 1896 and 1897 to 1.1 and 1.3 per cent. respectively, a lower percentage for any year since 1888 with the exception of 1893.[29]

What, then, is the fatality of the remaining quarter of the cases? For 1896 it is 20.1 and for 1897 15.0 per cent., and that against a previous fatality of 50 per cent. I have no hesitation in saying that the chief reason for this marvellous reduction is the fact that most of these cases were treated early, on the first or second day. The patients were inmates of hospitals and under the strict observation of medical men and nurses at the time they were taken ill with diphtheria, so that the treatment was undertaken early; and I would like to add that whatever doubts there may be concerning the statements made about the duration of illness of patients admitted with diphtheria from outside the hospitals, for the reason I have just mentioned there can be no doubt on that score with respect to these cases of post-scarlatinal diphtheria.

EFFECTS OBSERVED CLINICALLY.

So far I have dealt almost entirely with the statistical proofs of the value of antitoxin, though the clinical fact of its action in arresting the local affection has also been demonstrated. I must very briefly state the effects of antitoxin as exhibited in individual cases. A much larger experience has confirmed the opinions expressed in a paper read by Dr. Washbourn, Mr. Card, and myself before the Clinical Society in December, 1894,[30] when we recorded the results of the treatment in the first series of cases treated in this country. Not only is the extension of existing and the formation of fresh exudation stopped, but also that which is present clears off more rapidly than in cases where no antitoxin is used. When the nasal passages are affected, the foul discharge from the anterior nares that nearly always exists very quickly ceases, greatly to the comfort of the patient and those in attendance upon him. In many of the fatal cases the fauces and nose are absolutely clean before the termination of the case. The lessening of the faucial inflammation enables the patient to breathe and take nourishment without discomfort. The enlargement of the cervical glands disappears and the inflammation of the cellular tissue of the neck subsides. The visible improvement in the general condition of the patient reflects the changes that have taken place in the local lesions. Pulse-rate and temperature fall, appetite returns, and the patient is soon convalescent. Even in cases which end fatally, when antitoxin has been given at too late a period to save life, the patient's last moment's are made easeful, and the death-bed is robbed of all the loathsomeness we were accustomed to associate with fatal diphtheria.

The list of drugs in our *Pharmacopœia* is long. For all it is claimed that they are of value in the treatment of one and the other of the ills to which our flesh is heir. Yet I do not think I exaggerate when I say that few of even the most useful have been subjected to the same fierce criticism as has the antitoxin of diphtheria, and still fewer have borne the ordeal as triumphantly.

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INDIAN EXCHANGE COMPENSATION.—It has been ruled that medical officers appointed by the Secretary of State for plague duty are not entitled to draw exchange compensation allowance.

DR. N. H. CHOKSEY, medical officer in charge of the Arthur Road Hospital, Bombay, has by the order of King Humbert been invested with the Order of the Crown of Italy in recognition of services rendered to Italian *savants* during the prevalence of plague in 1897.

PERIPHERAL NEURITIS FOLLOWING THE SOFT SORE (? SYPHILIS).

BY C. B. MAITLAND, M.R.C.P.E., ETC.,
Major, Indian Medical Service, Poona.

I HAVE lately read in the BRITISH MEDICAL JOURNAL a statement to the effect that syphilis can give rise to the so-called tertiary symptoms years after the initial sore, without there having been any intermediate symptoms whatever. More recently I read in the JOURNAL a question by Dr. Buzzard in speech at the Annual Meeting, asking whether it is right to assert that the bacterium of the soft sore can have no part in producing fine changes in sensory neurons, and whether such effect must be due to syphilis. The idea embodied in Dr. Buzzard's question struck me first in 1888, when, during a campaign, I attended a young English officer for a phagedænic venereal sore on the penis. There was no history of previous syphilis, and the sore recovered under local treatment only, but in three months he was a helpless cripple from multiple peripheral neuritis. I have a vivid recollection of how the poor fellow had to be lifted on to his orderly's back, and how his feet flapped helplessly about with the swing of the man's walk. No symptoms of syphilis ever appeared, and in time he recovered completely without treatment. When I say completely, I mean sufficiently to be still in the army. Whether his strength is exactly as it was before, or his knee-jerks returned, I am unable to say.

In 1895 I admitted eight young native cavalrymen into hospital for what was then called "ulcer of the penis." Whether these sores were due to one woman I cannot say, but they all were followed by "rheumatic" pains and weakness of limbs, especially of legs, that kept the patients in hospital many weeks after the sores were healed. None of these men showed any signs whatever of syphilis, or had any specific history. Four were treated with full doses of mercury and potassium iodide without any apparent benefit. They all recovered in course of time.

On December 16th, 1896, a native cavalryman had connection, and came to me on March 25th, 1897, with a large collar sore on the inside of the prepuce, painful and slightly phagedænic. There was no history of syphilis, so the only mercury he took was a 5-gr. blue pill daily for thirteen days. The sore healed on April 25th. By May 11th multiple peripheral neuritis was well marked. Mercury and iodide were then pushed, but seemed to do no good. Strychnine pleased both the patient and myself most.

On August 11th, 1897, he was able to be sent on sick leave, and returned on December 8th, as he said, quite well; but the right hand, which had all along been more affected than the left, was still a little weak, and the knee-jerks were absent. He did duty till June, 1898, when he was admitted with a large venereal sore and suppurating bubo. These soon healed, but he has remained in hospital with what I can only call general paresis, the sole symptoms being increasing weakness of the limbs without loss of size or, as far as I can judge with the machine at my disposal, of electrical excitability of muscles, and some pain in joints of limbs. His grasp is like that of a small child, and his legs are just strong enough to let him creep along with the help of a stick. There are no sensory troubles except the pain mentioned. The man is not shamming, as he only wants a year to complete his pension service. No treatment has done any good.

Another native cavalryman acquired a venereal sore about the middle of January, 1897, and came for treatment on March 30th, 1897, with the whole foreskin in a phimotic and ulcerating condition. This was removed and a sore found on the glans. Amongst other treatment he had a 5-grain blue pill daily for twenty-eight days. There were no symptoms of syphilis. By May he was a good example of a severe case of multiple peripheral neuritis. He was treated chiefly with strychnine, and on September 26th was able to go on sick leave. He returned to duty on March 25th, 1898; the knee-jerks were still absent, and slight weakness of the right leg remained. This latter symptom has by now quite gone.

Of these eleven cases I saw nine from the first appearance of the sores and two after the sores had been in existence three months. None of the men had any previous history of syphilis, and none have shown any of the usual symptoms since. Of course the two last cases may possibly have had eruptions, etc., during the three months, but knowing the ways of the native soldier as thoroughly as I do, it seems to me very improbable. But even if these two cases are syphilitic there are the other nine cases to be accounted for, and the curious paretic condition of the man admitted for sore and bubo last June, in which the brain or nerves above the trophic centres are implicated—a marked contrast to the condition of the nerves following his first sore. If this man was now to be treated by any medical man who was not acquainted with all the details of his case the diagnosis would be easy—he had a venereal sore, cannot remember any skin or throat affections, etc., but took mercury; what can be plainer? I have read many descriptions of cases so diagnosed, and they have always reminded me of the method of a celebrated London physician I clerked for when he came across old soldiers in the hospital wards: "Gentlemen, this patient has been a soldier, therefore he has had syphilis; he has been in India, therefore he has had ague."

It is noteworthy that the nerve symptoms in all my cases appeared within a few months of the appearance of the sores, none later than five months.

I write this in the hope that others will record any experiences they have on the subject.

THE TREATMENT OF DYSENTERY: OBSERVATIONS OF SIXTY CASES.

BY J. J. DAY, M.R.C.S., L.R.C.P.LOND.,
District Medical Officer, Benin City, Niger Coast Protectorate.

DURING the six months May to November, 1898, I have had under my care 60 cases of dysentery. Owing to circumstances 25 of these cases had to be treated with ipecacuanha, while the remaining 35 were treated with magnesium sulphate. I used Burroughs and Wellcome's gr.v tabloids of ipecacuanha *sine* emetin, giving two tabloids every two hours, with opium gr.j twice daily. The results of the two treatments were markedly contrasted.

Of 15 cases treated in May by ipecacuanha and opium 6 died. Four of the first 8 cases died, and I then supplemented my treatment by a mixture containing liquor hydrarg. perchlor. ♏xv every four hours. The next 7 cases resulted in 2 deaths. In June I had 13 cases, the first 10 of which I treated as above, and 2 deaths resulted. Of the remaining 3 cases, the first for three days was treated as above, and showed no signs of improvement. I then changed the treatment, and administered drachm doses of magnesium sulphate every hour. On the morning of the fourth day the character of the stools had much improved. In the evening the patient had a relapse, which I found to be due to his having eaten a quantity of unripe pawpaw. He sank steadily, and died forty-eight hours later. The remaining two cases made a complete and rapid recovery.

In July there were 12 cases, all treated with magnesium sulphate, and all made rapid recoveries; in August 12 cases and 1 death, the patient suddenly collapsing; in September 7 cases and no deaths; in October 1 case and no death.

In no case were there any hepatic symptoms. Under the ipecacuanha and opium treatment the death-rate was 32 per cent. Under the magnesium sulphate treatment (disregarding the pawpaw case) the death-rate was 2.9 per cent.

The recoveries under the ipecacuanha and opium treatment were slow, and frequent relapses occurred. Under magnesium sulphate the recoveries were complete and rapid, but I found it advisable to continue giving magnesium sulphate ʒj thrice a day for a couple of days after the stools had ceased to be dysenteric.

The patients were all natives. All the deaths occurred among the prisoners, the majority of whom were Benjs. The remainder of the cases were native employees and native troops.

It is difficult to persuade a native that death is not the inevitable result of a serious illness, and when he makes up his mind to die he usually does so despite all care and attention. This may account for the high mortality in these cases.

Month.	Number of Cases.	Treatment.	Result.		Average Duration of Attack.
			Re-covered.	Died.	
May	15	8 ipecac. and opium	4	4	14 days.
		7 ipecac., opium and liq. hydrarg. perchlor.	5	2	"
June	13	10 ipecac., opium and liq. hydrarg. perchlor.	8	2	"
		1 ipecac., opium and liq. hydrarg. perchlor., and later, magnes. sulph.	—	1	7 days.
		2 magnes. sulph.	2	—	8 days.
July	12	12 " "	12	—	"
August	12	12 " "	11	1	"
Sept.	7	7 " "	7	—	"
Oct.	1	1 " "	1	—	"

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

COCAINE IN PLACENTA PRÆVIA.

E. H., aged 27, a multipara, summoned me on December 22nd, 1898, at 11.50 A.M., to see her, as she was "flooding." She was seven months pregnant with her second child.

On vaginal examination the edge of the placenta could be reached through the os (the latter about the size of half a crown); the head could be felt above. The membranes were intact. The labour pains were very feeble owing to the severity of the hæmorrhage. I decided to empty the uterus without delay. I painted the os with a 10 per cent. solution of hydrochlorate of cocaine, and plugged the cervix. The plugging, however, being ineffectual, digital compression was tried on as much of the bleeding area as the finger could reach. In forty minutes Champetier de Ribes's bag could be introduced and inflated, and regular traction made upon it. From the time of its introduction until the delivery of the placenta not half an ounce of blood escaped. Ten grains of sulphate of quinine in hot tea assisted the strength of the pains, which were very feeble, and on the expulsion of the bag to draw down the advancing head after rupturing the membranes was a simple, rapid, and easy termination of the case. The placenta was expelled at the same time as the child—a boy, at present alive.

In 1893, when Resident Assistant Medical Officer at Fulham Workhouse, I used suppositories of cocaine upon upwards of 300 pregnant women admitted to the lying-in wards of that institution, and I was much struck with its action, but have never seen greater benefit accrue from its use than in the present case.

COLLINGWOOD FENWICK, M.R.C.S., L.R.C.P., L.S.A.
Clapham, S.W.

COBRA BITE: RECOVERY WITHOUT AMPUTATION.

ON October 21st, 1898, a Bhistu, aged 27, who carries on a trade in snake charming, was bitten by a cobra in a field at 6 P.M. He immediately incised the bitten finger and applied some native medicine to it. He did not intend to go to hospital. At 6.30, however, he was brought to see me by a crowd. The snake he held in the bitten hand. When told to come and have his hand seen to he, refusing to kill the snake, put it on the ground in the middle of the assembled crowd. The beast at once sat up and began striking all round, and some delay followed in killing it.

When at length the snake was killed, at 6.45 P.M., the man was found to have two deep punctured wounds on his right index finger; a small scratch led away from each hole. In the pulp of finger the self-inflicted wound was to be seen. Amputation at such a late period being hopeless, bandages were tightly applied above the wrist and elbow-joints. Deep incisions were made over the site of the bite, and the whole hand dipped in hot potassium permanganate solution to promote bleeding. The wound was then forcibly sucked for some minutes; 10 minims of strong solution of potassium permanganate, hastily made up, were injected subcutaneously into the right shoulder, while liq. strychninæ hydrochlor. ♏iij was injected into the left shoulder.

At 8.45 P.M. ptosis made its appearance, and his speech was indistinct and nasal from paralysis of the soft palate, something like the speech of a sufferer from cleft palate. The tongue was protruded slightly to the left. The movements of the facial muscles also were weak; general weakness came on, and he complained of acute pain in the hand. Liq. strych. hyd. ♏iij was again injected, and potassium permanganate injected as before, and aromatic spirits of ammonia administered.

At 9.45 P.M. all symptoms were aggravated, and there was drowsiness and weakness amounting to paresis of the upper and lower limbs. Breathing was unimpaired. The pulse was weak (82). The strychnine and aromatic spirits of ammonia were repeated.

The patient's condition remained unaltered till midnight, when improvement began. The bandages were removed. The arm was immensely swollen and œdematous. He did not sleep at all. Aromatic spirits of ammonia was given. At 7 A.M. next day, October 22nd, he was considerably better. The ptosis had lessened, and speech was more articulate. He slept a little during the morning; the temperature was 103.8°; but at 7 P.M. had fallen to 101.8°. The paralytic symptoms had all passed away, but the arm was much swollen and exceedingly painful. The hand and arm were bathed in warm carbolic lotion 1-40, and painted with belladonna and glycerine. The wound was dressed antiseptically, and the arm surrounded with cotton wool to restore circulation. On October 23rd the temperature in the morning was 101°, in the evening 102.8°; the arm less swollen, but he had pain in hand and arm. On October 24th the temperature was 100° in the morning, and 100.8° in the evening; the pain in the hand was severe, but the part was less swollen.

On October 25th and 26th the temperature reached 100° in the evening, but normal in the morning. On October 27th an abscess was opened on the back of the hand, and a large quantity of pus escaped. On November 28th the arm and hand were normal; the phalanges of the fingers had necrosed, and the fingers were amputated. A few days later he was discharged.

I secured the skin of the snake, and have shown it to many who have identified it as that of a cobra.

The only explanation of this case is that the snake had spent its poison previous to biting the man, and that part of the dose was removed from the wound when treated.

De Vere Condon, B.A., M.B., I.M.S.,
Agency Surgeon to Harabti and Tonk Political Agency.
Deoli, Rajputana, India.

A MENSTRUATING MAN: A CURIOUS FORM OF HERMAPHRODITISM.

A. B., aged 24, kept company with a young woman for twelve months, during which time he offered to kiss her once, and on no other occasion showed any sexual feeling whatever. Just a week after marrying her, and again two months subsequently, he made very feeble attempts at copulation, having apparently neither sexual instinct nor power of erection; neither penetration nor emission occurred. He was then away from home for four months, and on his return he made no offer of sexual intercourse during the few days he remained at home before going away again for two months. On the first night after returning this second time his wife did her best to stimulate him, but it was quite hopeless, as he could effect nothing. As they had both noticed that he had periodical red monthly discharges, usually lasting about three days, and staining his shirts and sheets, they began to note the dates on which this began, and ticked off the following days: April 24th, May 22nd, June 19th, July 21st, August 14th, September 10th, October 9th, November 1st. Having got so far, they thought it time to consult me as to whether he was a man, or a woman, or both, or neither.

I found nothing unusual in his general appearance, except a shy, cowed look; the penis, urinary meatus, and scrotum seemed normal, but the testes felt decidedly small and soft; he stated that he had never either abused himself or had any sexual feeling whatever. Being satisfied that he was at least not a complete man, and doubtless cowed by his wife's dissatisfaction, he readily consented to a separation and allowed her half his income.

It seems likely that this case differs from Ströbe's case of hermaphroditism—fully described in the Epitome of the British Medical Journal of November 12th, 1898, page 79—merely in the fact that the rudimentary testes had descended into the scrotum, the man probably having a uterus and Fallopian tubes.

Kendal. **Wm. Rushton Parker**, M.A., M.D.Cantab.

BREAST EXCISION IN A PATIENT ALMOST PULSELESS.

In October, 1898, Dr. S. Wreford, of Clapham, requested me to see with him Mrs. A., aged 61, a healthy-looking woman, with good facial colour, fairly active, and younger in appearance than her years. She was stated to be liable to asthma, and had occasionally fainted. There was no other ailment, and nothing peculiar in the history. A scirrhous growth of two months' duration, and "walnut" size, occupied the centre of the left mamma. No enlargement of glands could be felt.

We could detect no pulsation on either side in the carotid, radial, ulnar, or brachial. A very small vessel could be found on careful search, beating on the dorsal aspect of the right thumb, near its base. There was also a faint pulse in the right subclavian. The cardiac sounds were weak, but otherwise normal. The lungs were healthy, and the urine devoid of albumen.

An operation was advised, but was approached with anxiety, every possible precaution being taken by Dr. Whitelaw Bourns, who administered A.C.E. The foot of the table was kept well elevated. A wide dissection of the whole breast tissue was effected as rapidly as possible. It was considered prudent not to touch the axilla, which otherwise would have been evacuated. Only a few drops of blood oozed from the extensive wound, a circumstance not tending to inspire confidence. All, however, went perfectly well, and the patient has since made a good recovery. The remarkable condition here apparent seems to me of some medico-legal, as well as clinical, interest.

Gloucester Place, W. **Herbert Snow.**

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

MERCER'S HOSPITAL, DUBLIN.

ABDOMINAL ANEURYSM IN A YOUNG WOMAN.*

(By **Charles B. Maunsell**, M.B., etc., Surgeon to the Hospital.)

M. G., aged 37 years, married, was admitted on September 22nd, 1898. She complains of wasting, pain in epigastrium, dorso-lumbar region, and around left side. The pain is constant, and sometimes very severe, and is increased by food. She states that she vomits if she attempts to take anything except a little hot rum. She never noticed blood in the vomited matter. For some months she has noticed a lump, which she says "rises and jumps in the pit of her stomach." About a year ago she weighed over 9 st. She has been married 19 years, had a healthy child one year after marriage, then a miscarriage some years after, and then two stillborn children, the last two years ago. She was then treated at the Coombe Hospital for displacement of the uterus. For the last year she has not menstruated, and during this time she had several attacks of bleeding from the rectum, the last about three months ago, when she says she lost a large amount of blood. The pain in the epigastrium commenced six months ago, increased three months ago, and has been constant for the last three weeks. She has had attacks of vomiting for two months.

Present Condition.—Temperature and pulse normal; urine specific gravity 1023, acid, no albumen or sugar; weight, 6st. 13 lbs.

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* Read before the Pathological Section of the Royal Academy of Medicine in Ireland, December 2nd, 1898.

Inspection.—She is anæmic, chest and apex beat normal, abdomen lax and hollow except to the left of epigastric region, where an indistinct fulness and pulsation can be seen.

Palpation.—Chest, etc., normal, tenderness, over-fulness, and to the left over stomach. On light palpation a rounded tumour about the size of a goose egg is felt, commencing at the left of the middle line, and passing under the left costal margin at the level of the eighth cartilage, it pulsates, and gas can be felt gurgling through it at intervals during manipulation. On deeper pressure, a firm, round lump about the size of a small hen's egg can be felt distinctly to the left of the middle line as if it lay in the centre of the larger and softer tumour. It is very tender, and pulsates with a strong distensile pulsation laterally, but cannot be well defined vertically as the recti become tense, it appears to be very fixed. The aorta can be easily palpated as a firm pulsating tube, smaller and more to the left than normal. The pulse in the iliacs and femorals seems normal. The pelvis and rectum are normal except for fixed retroverted uterus and very slight hæmorrhoids.

Percussion.—Stomach tympany extends higher than normal in left axillary line, dulness over area of larger tumour.

Auscultation.—Slight hæmic *bruit* over pulmonary area, slight accentuation of aortic second sound. A systolic *bruit*, rather rough in character, can be heard without pressure over the tumour in abdomen; a softer *bruit* can be heard over aorta and iliacs.

Special Examination.—Corrigan's flags show pulsation to be distensile laterally, but very doubtful vertically. Pulsation can be felt the same, no matter what position the patient is placed in. There is no *bruit* over spine. On auscultating along spine whilst the patient sips water, it can be heard passing readily along the œsophagus into the stomach; and on placing the stethoscope over the tumour, in about 30 seconds, the fluid is heard bubbling through on its way from the stomach to the intestines.

I ordered the patient to lie perfectly quiet, gave bismuth and morphine for the vomiting and pain, and fluid diet.

In two days the pain was almost gone; she had only vomited once (nothing peculiar in vomit); says she feels well, pulsation, etc., as before. I ordered iodide of potassium, gr. 15, three times a day in milk, rest as before, but increased the diet to eggs and fish in moderation. By the end of a week she felt so well that nothing would keep her from jumping up in bed and sometimes out of it, although she was warned that sudden death might supervene.

October 12th (three weeks from admission). Pulsation very indistinct, tumour small and much less distinct, *bruit* over tumour and aorta very much alike, weight 7st. 8 lbs. Patient insists on going home, she lives within 20 yards of the hospital, and says she will stay in bed and take her medicine. I discharged her on October 13th. On the evening of the fourth day after her discharge she was brought in again to hospital at 5 P.M., and had evidently been dead about half an hour.

Her husband stated that she felt so well in the morning that she got up and scrubbed the floor, then vomited, became weak, and died towards evening, without assistance being sought. I was unable to attend hospital for some days, so my colleague, Dr. Lumsden, very kindly obtained a hasty *post-mortem* examination, and secured the specimen for me. He has given me the following notes of what he found at the *post-mortem* examination:

On opening the abdomen the intestines seem normal, stomach somewhat dilated, and on pushing up the pyloric end the tumour is found lying behind and below it; it is evidently an aneurysm of the cœliac axis. No signs of rupture, no increased anastomotic circulation above or below the tumour, vena cava not pressed on. He then opened the thorax and took out the heart, aorta, and common iliacs *en masse*, together with the eleventh and twelfth dorsal and first lumbar vertebræ. All the other organs, including the brain, seemed normal. As soon as I returned to hospital I examined the parts removed, and found as follows:

Heart.—On surface of right ventricle is a rectangular "white spot" 4 cm. long and 1 cm. broad; amount of fat on surface normal. Wall of left ventricle slightly hypertrophied; in right auricle and ventricle are large tough clots.

Aorta.—Valves normal; sinuses of Valsalva pouched and atheromatous; posterior one shows opening of coronary artery surrounded by atheroma. In its whole length the aorta shows more or less atheroma. From its commencement up to and including the origin of the left subclavian the aorta is dilated into a fusiform aneurysm nearly double the calibre of the aorta. Immediately after giving off the left subclavian it is somewhat constricted and then dilated into a smaller fusiform aneurysm 4 cm. long. The cœliac axis is enlarged into a sacculated aneurysm about the size of a small hen egg. This aneurysm seems to spring from the cœliac axis, and involves the left side of the aorta down to the origin of the superior mesenteric artery, which seems to spring from the lower and anterior part of the aneurysm. The left renal artery arises 1 cm. below and the right 2 cm. below. The branches of the cœliac axis arise from the inferior part of the apex of the aneurysm to the left side. Below the aneurysm the aorta is only half the calibre of that above. The aorta above the aneurysm is firmly adherent to the eleventh dorsal vertebra, and has to be torn to remove it. The portion of aorta involved in the aneurysm is firmly adherent to the lower part of eleventh and upper part of twelfth dorsal vertebræ, and on separating it it is found to be deficient behind, and the bodies of the vertebræ are eroded to a depth of 5 mm., the intervertebral disc being intact.

Aneurysm.—On incision the walls are found very fibrous, and vary in thickness from 3 mm. at the base to 7 mm. at the apex. The aneurysm is practically completely filled by firm laminated clot adherent firmly above and to the right, but easily separated towards the left. The orifices of the branches of cœliac axis seem occluded, but there is a tunnel through the clot which would allow blood into the superior mesenteric.

The case was most interesting, and it was practically impossible to give a definite diagnosis. The diagnosis to my mind lay between (1) malignant tumour of pylorus or upper intestine; (2) gumma; (3) aneurysm of splenic artery or cœliac axis. In favour of malignancy were age, sex, wasting, pain, vomiting, hæmorrhage, dilated stomach, gurgling felt and heard over tumour. In favour of gumma were history of deadborn children and rapid improvement on iodide of potassium. In favour of aneurysm were probability of syphilis, pain, fixed pulsating tumour, *bruit*, the great variability of symptoms from day to day. Against this were sex, bleeding, wasting, vomiting, etc., and rapid improvement.

I considered that it was probably an aneurysm, and did not think it advisable to make certain by passing bougies, distending stomach with gas, or putting the patient under an anæsthetic. I should wish to suggest an explanation for some of the symptoms:

(1) Bleeding from the rectum, unless due to piles, may have been due to venous stasis of intestines, owing to obstruction of mesenteric artery. (2) Vomiting most likely was due to rum and pressure on the stomach combined. (3) Gurgling felt and heard was evidently due to pressure of the tumour pushing up the pyloric end of stomach. (4) Death I consider was due to syncope, for, although clots were found in the right heart, yet the history of lying moribund for some time before death would account for them, without supposing them to be emboli from the vena cava.

In conclusion, I must thank my colleague, Dr. Lumsden, for the great help he gave me in examining the case, and also our house-surgeon, Dr. Wentworth Taylor, for the trouble he took with regard to *post-mortem* and other notes.

BEDFORD GENERAL INFIRMARY.

THE OPHTHALMIC JOINT DISEASE OF CHILDREN.

(By S. J. ROSS, M.B., Ch.B.Vict., House-Surgeon,)

AN infant aged 5 days was brought to the infirmary for treatment on account of "double ophthalmia." Both conjunctivæ were injected, chemosis was marked, and there was profuse discharge of pus. The pus was examined, and found to contain gonococci, while under treatment effusion took place first into the right knee-joint and subsequently into the left. Local treatment was adopted, and the synovitis gradually disappeared, clearing up entirely three weeks after the ophthalmia had disappeared.

I have no doubt that the synovitis was analogous to that which sometimes follows or is concomitant with a urethritis of gonorrhœal origin.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

JOHN LANGTON, F.R.C.S., President, in the Chair.

Friday, January 27th, 1899.

ABDOMINAL SECTION.

MR. J. HUTCHINSON, jun., read notes of 3 cases in which he performed abdominal section. In none of them was there any external wound. Case I, a man, aged 32, was run over and subsequently became collapsed. He had slight abdominal distension and much tenderness with dulness beyond the left linea semilunaris which shifted on change of position. On the following day the temperature had risen to 102° and the abdominal distension had increased. On opening the abdomen it was full of blood, but in spite of careful search Mr. Hutchinson could find no vessel requiring ligature. Great relief followed the removal of the blood, but some oozing occurred subsequently, as evidenced by dulness in the flanks and the escape of blood into the dressings. The patient left the hospital a month later. The author raised the question whether the presence of effused blood within the peritoneal cavity was likely to prove injurious, and he thought it was. Case II, a single woman was brought to the hospital with symptoms pointing to intestinal obstruction. On opening the abdomen over two pints of clear, pale, yellow odourless fluid escaped. The intestines were slightly congested, the stomach dilated, the uterus enlarged as at the third month of pregnancy. He was at a loss to discover the nature of the fluid and closed the wound. In spite of a passing improvement the patient aborted on the following day and died soon after. *Post mortem* the abdomen again contained a large quantity of the same serous fluid, and the intestines showed signs of commencing peritonitis. Exactly in the middle of the posterior surface of the bladder, 1 inch above the peritoneal reflexion, and therefore hidden from view, was a small round perforation one-seventh of an inch in diameter, through which urine could readily be expressed. The bladder and urethra were otherwise normal. If the nature of the fluid had even been suspected he thought it might have been possible to discover and repair the perforation. He surmised, under the circumstances, that the wound was caused by an unskilful attempt to procure abortion. From the history, it seemed likely that the urine had been leaking into the peritoneum for at least four days. He discussed the effects of effused urine in the peritoneal cavity, and recalled that experiments on animals had shown that healthy urine might be injected into the abdomen without giving rise to much local reaction; that in moderate quantities it might be absorbed and the animal recover. Case III, a woman, aged 47, was admitted with the history that, previously in perfect health, while lifting a basket on the preceding day she had been seized with pain in the left side of the abdomen, followed by vomiting and some collapse. A smooth movable tumour could be made out to the left of the middle line, about the size of a fœtal head. This was dull on percussion, but there was no dulness in the flanks. Nothing of interest was made out by vaginal examination. He diagnosed ovarian cyst, the seat of a twist or rupture. On opening the abdomen a quantity of characteristic glairy fluid escaped, and it was seen that the largest cyst of a multilocular ovarian tumour had ruptured. The fluid was sponged away, but the cavity was not irrigated. Recovery followed. Admitting that the thin serous fluid of an ordinary ovarian cyst might, if effused in the peritoneal cavity, undergo absorption without giving rise to much trouble, he asked whether this thick glairy fluid would prove equally innocuous.

The PRESIDENT, discussing the first case, said that although extravasated blood did not necessarily produce septic peritonitis, yet it was best to remove it if possible. He related the case of a man who had a wound by a bullet which had traversed the lung, the left lobe of the liver, and left kidney, and settled in the erector spinæ muscle. The hæmorrhage from the liver continuing, he (the speaker) opened the abdomen, and plugged the liver wound with iodoform gauze, which remained in position for two days, and thus arrested the bleeding. The patient recovered.

Mr. L. A. DUNN said that the hæmorrhage (in Mr. Hutchinson's case) which occurred after the operation, although it was considerable, seemed to have done no harm. The President's case was hardly parallel, as the wound was or might have become septic.

Mr. HUTCHINSON, in reply, admitted that the blood was extravasated after the operation. He had left one part of the wound without a drainage tube, and but slightly sewn up, so that any blood effused might come away. The most striking result of the operation was the relief of the patient's pain and the fall of temperature. The amount of blood lost was unusually great, probably several veins were lacerated.

Dr. BATTY SHAW, referring to the author's third case, cited the case of a woman sent to hospital on the third day after parturition, and who died upon admission. It was considered that she had ruptured an ovarian cyst, and she was admitted that an operation might be performed. At the necropsy several pints of glairy fluid were found in the abdomen and a collapsed ovarian cyst; but there was no sign of peritonitis. There had been no notable increase in the amount of urine passed after the accident.

Mr. CHARTERS SYMONDS described two cases. The first was that of a child, aged 14, who had an obvious ovarian cyst, but when upon the operating table no tumour was visible. He, however, opened the abdomen and found the pelvis filled with serous fluid, upon which the intestines floated in the abdominal cavity. He found a ruptured ovarian cyst and removed it, and the patient recovered. The second case was a woman, aged 35, whom he found very ill, probably with rupture of an ovarian cyst. The operation was performed, and she died of shock. Though there was much fluid in the abdomen, there was no sign of inflammation. He thought it possible that if he had not operated the patient might have recovered.

The PRESIDENT thought the extravasation of a thick viscid fluid might probably cause peritonitis. He narrated the case of a lady with ovarian cyst which burst four different times in the course of about four years, sometimes with much accompanying collapse. At length, after the fourth rupture, he opened the abdomen, and the cyst, which was unilocular and quite empty, was removed. There were no signs of peritonitis or of any adhesions.

Mr. HUTCHINSON, in reply, said that in his case the cyst was multilocular, and the largest cyst had burst. He asked why the patient whose case was narrated by Dr. Shaw had died, if there was no peritonitis. He mentioned the case of a lady with an ovarian cyst, who whilst riding in a hansom cab was suddenly thrown forward against the top of the door in front, and thereby ruptured the cyst.

RHEUMATIC TONSILLITIS.

Dr. BERTRAM ABRAHAMS read a paper based mainly upon cases observed by himself during the last three years. A large number of cases of chorea, rheumatism, and cardiac disease, both in adults and children, had been investigated and tabulated, and the resulting statistics compared with those of previous observers, in order to ascertain as accurately as possible the relation of the throat affection to the rheumatism. The bacteriology of many of the cases had also been studied with a view to obtaining some light upon the etiology of the disease itself. Details were given of a number of cases illustrating (1) the occurrence of endocarditis after non-scarlatinal tonsillitis without the intervention of arthritis or chorea; (2) tonsillitis immediately followed by a first attack of chorea: (3) repeated attacks of chorea, each preceded by tonsillitis; (4) the occurrence of sore throats at various points in the rheumatic series. Clinically, five varieties of rheumatic throat affection might be distinguished: (1) Faucial erythema, the pharyngeal inflammation described by Trousseau as ushering in an attack of acute rheumatism; (2) follicular tonsillitis; (3) quinsy. Between these latter no pathological distinction could at present be drawn, though it was notable that when a patient had repeated attacks, they were almost always solely of one kind or the other, an alternation being rarely observed. As was also the case with non-rheumatic forms, the follicular variety was commoner in children, the quinsy in adults; (4) the abortive form described by Singer (*angine rhumatismale* of French authors), in which the joint and muscle pains were vague, was not so frequent as he had stated. No case should be included under this head in which there was not adequate personal or family history of rheumatism. After making this observation a considerable number of instances remained, the most noteworthy point about which was their liability to die suddenly from cardiac failure; (5) chronic rheumatic tonsillitis was described by Dr. Max Thorner; this affection was more probably gouty in nature. A statistical inquiry was made into consecutive cases of three distinct affections, namely, 248 of chorea, 48 of acquired heart disease in children unassociated with chorea, and 66 of rheumatic fever in adults. Of the choreas in which a reliable history was obtainable, 53.4 per cent. had a family or personal one of sore throat. This history was not associated with any marked predisposition to either arthritis or heart disease. Of the cardiac cases, 66.7 per cent. gave a history of throat affections. Among the adults, 45.5 per cent. had a definite throat history, 21.2 per cent. had suffered from ulcerated throats within three weeks of the attack of acute rheumatism, and 47.2 per cent. showed faucial erythema within two days from its onset. In children, where the commencement was insidious, faucial erythema was extremely rare; but a large proportion of them had follicular tonsillitis when first seen, and either revealed cardiac disease when examined or developed chorea while under observation. In many of these cases the tonsils might have been the channel of infection; but sore throat was often a late term in the rheumatic series. Bacteriological examination in a large number of cases revealed the constant presence of streptococci and staphylococci, the former more frequently, but the latter oftener in pure culture. Similar organisms were found in the urine drawn from the bladder with all antiseptic precautions. Taking these results together with the discovery of the same microbes in the blood and affected joints in acute rheumatism by Sahli and others, the probability of the occurrence of infection through the tonsil became very strong. It was believed by many that the rheumatic patient was poisoned by the attenuated virus of a germ which when fully active led to pyæmia. The following conclusions were put forward: 1. The more common varieties of rheumatic sore throat fall into two main categories, faucial erythema and tonsillitis proper. 2. Faucial erythema is most common in adults, rheumatic tonsillitis in children, in whom it usually assumes the follicular type, quinsy being more frequent in older subjects. 3. Faucial erythema is an initial manifestation of acute rheumatism, tonsillitis may be the actual primary lesion. 4. Many cases are now definitely on record in which endocarditis has followed a non-scarlatinal tonsillitis unaccompanied by joint pains. In numerous other instances the tonsillitis has immediately preceded an attack of arthritis or of chorea. 5. The presence of the same micro-organisms in the tonsils, joints, blood, and urine is evidence in favour of the participation of pyogenic cocci in the etiology of rheumatism.

Dr. KINGSTON FOWLER said his own observations, now confirmed by the author, were first published in 1880. Tonsillitis might be followed by rheumatism, chorea, or endocarditis. What was meant by the term "ulcerated sore throat" in these affections? In ordinary quinsy rupture of the follicles left their ragged edges exposed, but this was not real ulceration. Some years ago a man with tonsillitis, treated with chlorate of potash and iron, was doing fairly well when on the eighth day, being still in bed, he developed acute rheumatism. If these tonsillar cases were treated with anti-arthritic remedies a bad rheumatic attack would frequently be warded off. Again, a gentleman had a tonsillitis, and immediately afterwards went to Switzerland, where he developed in the high Alps a severe rheumatic fever. He objected to the use of the term "growing pains;" they were very frequently symptoms of rheumatism.

Dr. WALTER CARR asked how these supposed rheumatic cases were to be diagnosed? From inspection, or from a mere history, or subsequent occurrence of rheumatism? Dr. Abrahams had relied on the history; but in one case there was an interval of a year and in another an interval of seventeen years between the sore throat and the rheumatic attack. Tonsillitis might surely attack rheumatic people as well as others without being a manifestation of that rheumatism. If tonsillitis were treated with salicylate, he doubted whether the course of the inflammation was thereby changed. When young he had had "growing pains," but he did not know that he had ever had rheumatism.

Dr. L. BENHAM believed that any kind of sore throat might be followed by rheumatism, but that the sequence came in only a few cases. He believed, also, there was a simple ulceration of the tonsils, the result of a slough and œdema. He had known a child have tonsillitis, and when recovering have a rise of temperature and develop a mitral murmur.

Dr. SUTHERLAND thought it difficult to prove that the rheumatic poison entered by the tonsils. Were the tonsils, too, the only part of the alimentary canal affected by the rheumatic poison? He considered that the rheumatic poison affected the whole of the lymphoid tissue of the abdominal canal, especially of the appendix vermiformis.

Dr. TOOGOOD said that in his experience cases of follicular tonsillitis were of bacterial origin. They were also very infectious. The microbes he had most frequently met with were streptococci, staphylococci, and the short diphtheria bacillus. It was sometimes difficult to say where follicular tonsillitis ended and diphtheria began.

Dr. ABRAHAMS, in reply, explained that "growing pains" and "ulcerated sore throat" were merely colloquial expressions which one had to make use of in questioning patients. He was not satisfied that the antirheumatic treatment of these throats had any beneficial effect, and he mentioned a case to show that the administration of the salicylates could not be relied upon to avert the subsequent occurrence of an attack of rheumatism. The non-success of antirheumatic treatment he thought was in favour of a bacterial origin. He concurred in Dr. Sutherland's remarks as to the gastro-intestinal disturbance in some of these cases. He pointed out that the germs referred to by Dr. Toogood were not invariably present, and possibly the attenuated micrococcus was the true cause of rheumatism.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

H. R. SWANZY, F.R.C.S.I., President, in the Chair.

Thursday, January 26th, 1899.

RAPID CHANGES IN REFRACTION IN CONNECTION WITH DIABETES.

MR. H. GRIMSDALE read this paper. A female aged about 45 was first seen on October 7th, 1897. She had been always thin and delicate, and had been losing flesh. She had been wearing for near vision R. sph. + 1 D. cyl. + 0.75 D.; L. sph. + 1.75 D. She had suddenly noticed a change in the power of her sight a few days before her visit; distant objects became dim and near objects became clearer. When seen V. was

$$\text{R. } \frac{6}{60} \; \frac{-\,2\text{ sph.}}{-\,0.5\text{ cyl.}} \; \frac{6}{6}; \quad \text{L. } \frac{6}{60} - 2\text{ sph. } \frac{6}{6}$$

Result confirmed by shadow test. In the R. lens there were several opacities near the centre; the L. lens was clear, but the nucleus in each was marked. No other defect in eyes found. The condition was regarded as early sclerosis of the lens, and glasses for distance were ordered. Dr. Stokes had shortly before discovered a large amount of sugar in her urine (26 gr. to the ounce). The urine had been frequently examined in previous years, and had contained no sugar. After ten days the vision had returned to its former condition, R. $\frac{6}{12}$ − 0.5 $\frac{6}{12}$; L. $\frac{6}{6}$. The R. lens showed irregular astigmatism, but the opacities were unaltered. About three weeks later the patient died with diabetic coma. The interest of the case lay in the development of myopia and its rapid disappearance. A similar case was reported by Risley,[1] in which disappearance of sugar in diabetes was accompanied by development of hyperopia, followed by a return to normal when the sugar reappeared. The cause was probably a lenticular one; it was impossible to assume an alteration in position of the retina; it was not likely to be due to spasm of ciliary muscle, as this would have involved a permanent spasm in Risley's case, suddenly giving way and then reappearing.

Mr. DOYNE quoted the case of a diabetic man aged 43 whose V. and refraction were H. 3 D. $\frac{6}{6}$. After a voyage V. was

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[1] *Trans. Amer. Ophth. Soc.*, 1897.

$\frac{6}{12}$ + 2 D. $\frac{6}{6}$. The sugar then disappeared under treatment, and V. was emmetropic or H. 0.5.

On the Stereoscopic Examination of Skiagraphs of Foreign Bodies in the Eye and Orbit.

Mr. **Mackenzie Davidson** gave a demonstration of the most recent changes and developments he had made in his method of investigating the presence and position of foreign bodies in the orbit and eyeball. Two negatives were taken, the light being changed in position about 6 cm., the interocular distance. If these were examined side by side against a window, with a little practice in converging the eyes, a miniature stereoscopic picture started into vivid relief, and a fairly accurate estimate could be made of the situation of the foreign body in relation to a known point, such as a piece of lead wire attached to the lower eyelid. The best instrument for seeing stereoscopic skiagraphs was Wheatstone's reflecting stereoscope. If the stereographs were reversed the object still stood out in perfect relief, but it appeared to be in the other eye; this would not give rise to any confusion, as it would always be known in which eye the foreign body was lying. Mr. Mackenzie Davidson had applied his method of localising foreign bodies in the eye in 70 cases, and he claimed for it an indispensable position in ophthalmic practice.

Mr. **Silcock** spoke of a case in which a foreign body had passed through the cornea and lens, and was located by Mr. Mackenzie Davidson about 6 mm. from the O.D. Under an anæsthetic an incision was made through the sclerotic and the magnet introduced close to the foreign body, which was withdrawn.

Messrs. **Adams Frost**, **Johnson**, **Taylor**, and **Cargill** spoke of cases under their care.

Card Specimens.

Mr. J. **Hern**: Obstinate Conjunctivitis.—Mr. D. C. **Lloyd Owen**: The Cartella Eye Shield.—Mr. W. H. **Jessop**: Skiagraph of Foreign Body in Eye.—Mr. **John Griffith**: Microscopical Specimen of Primary Sarcoma of the Cornea.—Major M. T. **Yarr**, R.A.M.C.: Patch of Central Choroido-retinitis simulating in appearance the Optic Disc.—Mr. C. **Higgens**: Case of Removal of Lens for High Myopia.—Mr. E. C. **Fischer**: Associated Movement of Lid and Jaw.—Mr. A. **Bronner**: (1) Congenital Tumour of Cornea; degenerated nævoid growth? (2) Tuberculous Tumour of Iris.

HARVEIAN SOCIETY OF LONDON.

Annual Meeting.

J. F. Goodhart, M.D., in the Chair.

Thursday, January 19th, 1899.

President's Address.

The President delivered an address entitled Opinion the Salt of Fact. He dwelt on the value of opinion in things medical as well as of verified fact. He held that the promise of success satisfied the human mind as finished success could never do. Hence the fascination which treatment based on theory always exercised. Such treatment might fail from various causes, but it did not follow that the theory was altogether wrong. He alluded to the recently-advocated methods of treating cancer—by electrical currents of high tension, by the use of toxins, and by oöphorectomy. Such methods had all failed, but who could say that the ideas on which they were based might not be "stepping stones to higher things"? On the other hand, the theory on which treatment was based might be utterly wrong and yet the treatment might be successful. For instance, dilatation of the heart and stomach had been regarded as due to inability of the organs to drive their contents through obstruction ahead. But he believed that dilatation was a primary passive process, and that hypertrophy was the attempt to remedy this condition. Yet this view did not interfere with the success of treatment based on an opposite assumption. The President then referred to the statement recently made by Dr. Sidney Phillips that disease had changed in type. He fully concurred in this view, and illustrated the changes not only in the case of enteric fever but in other diseases, such as diphtheria, pneumonia, and appendicitis. He compared the accounts of influenza by Huxham in 1733, and of morbilli by Sydenham (1670) with the phenomena of those diseases in their present type. The change of type was apparent not only in disease but in man, and thought, and even in the expression of thought. This was exemplified in the case of painters, novelists, and other writers. Man and his view of his environment were in a contant condition of change. One had only to look at the pictures of Rembrandt and other old masters, or read the novels of Burney, Thackeray, and Dickens, to see how widely their outlook on Nature differed from that of present-day artists and writers. He had entitled his address "Opinion the Salt of Fact." In the study of disease, he believed there was a legitimate sphere for the nebulous phase of thought, although the fruit of speculation might often seem unripe.

Election of Officers.

At the close of the presidential address, the scrutineers of the ballot declared that the officers recommended by the Council had been elected. Votes of thanks were proposed and carried to the retiring officers.

Conversazione.

The meeting then resolved itself into a *conversazione*. Instrumental and vocal music was provided by the string band of the Royal Horse Guards Blue, and by the Crichton Glee Singers, under the direction of Mr. Mervyn Dene.

A collection of sporting guns past and present was exhibited by Dr. F. W. **Cock**; and Messrs. **Coxeter** gave a demonstration of the use of *x* rays.

EPIDEMIOLOGICAL SOCIETY.

H. Franklin Parsons, M.D., President, in the Chair.

Friday, January 20th, 1899.

Epidemic Cerebrospinal Meningitis.

Dr. **Bruce Low** read a paper on epidemic cerebrospinal meningitis, a disease in which, from its supposed infrequency in this country, little interest had been taken; and, excepting the paper by Dr. B. Corney on an outbreak in Fiji ten years ago, it had been ignored by the Society since 1865-7, when Professors Hirsch of Berlin and Mapother of Dublin brought it before their notice. Four forms were generally recognised—the typical, the purpurous, the fulminant, and the abortive or chronic; the diagnosis of the last two was by no means easy. The definitions given in books applied to the first only, and many cases were mistaken for tuberculosis, typhoid, tetanus, influenza, sunstroke, and other diseases. Though its specific character was not recognised until the beginning of the present century, he believed that it was not new to this country, and that it had been the cause of much of the mortality previously ascribed to gaol fever and "malignant fever with purples." Few diseases, indeed, had been so variously designated, but at present the name of "cerebrospinal fever" was the most approved, though the American and German vernaculars of "stiff-neck fever" and "*Genickstarre*" were very expressive. Cerebrospinal meningitis, however, was a not infrequent complication of many febrile diseases, and of those of the cranial bones and middle ear; these forms were etiologically wholly different, and never epidemic or communicable, or attended by purpura or herpetic symptoms characteristic of cerebrospinal fever, which was also marked by the absence of the associated diseases. The epidemic fever had appeared from time to time in France, Switzerland, and America during the first half of this century, spreading later to Denmark, Italy, where in 1894 it caused 2,000 deaths in a population of 30 millions, and since 1860 to Germany, and the east and south-east of Europe. In 1865 there was a severe epidemic in Polish Prussia, 1,900 persons being attacked, and 1,000 dying in the province of Dantzic alone. In the United States of America it was even more prevalent, especially in New York and other great cities, where in 1881 the deaths were equal to 0.34 per 1,000 of the population. Having followed his history of the chief epidemics in Europe and America by a more detailed account of the various outbreaks in the British Islands down to the past year, he said that many deaths ascribed to influenza and other causes were probably due to this disease, and the occasional alleged instances of recovery from tuberculous meningitis as well as the similarity in the curves of the yearly mortality from the several diseases in question were suggestive of such confusion of diagnosis. Overcrowding, to which might be referred its greater incidence in barracks, asylums, etc., and cold and wet, whether directly or as leading to neglect of ventilation, seemed to be predisposing causes, but its infectivity was now generally admitted. Gaucher, Ughetti, Marchiafava, Celli, and Leichtenstern had between 1881 and 1886 observed micrococci in the cerebrospinal fluid of epidemic and other forms of meningitis, but they were all supposed to be identical with the pneumococcus of Fraenkel. Though Weichselbaum had in 1887 described a peculiar form of micrococcus to which he gave the name of diplococcus intracellularis in six cases of epidemic disease, it was not until 1895 that Jaeger of Stuttgart proved that this, which he called tetracoccus, was itself characteristic and causative of the epidemic cerebrospinal fever, distinguishing it from the other forms of meningitis. His conclusions had since been fully confirmed by numerous observers in Germany, Austria, and America, and by Dr. Still in this country, who had by its means identified the so-called "infantile paralysis" with the disease under consideration: the tetracoccus was so constantly present in the nasal mucus of persons suffering from cerebrospinal fever that Jaeger, Heubner, and others believed that the infection was always communicated through the nasal discharges, the profuseness of which in some epidemics, as that in Styria in 1898, had led to its being taken for influenza. Animals, too, were susceptible to cerebrospinal fever, the epidemics of "influenza" among horses being doubtless outbreaks of this disease, as that in New York, when 1,412 died in the six weeks ending December 2nd, 1872, many of them, as reported at the time, with meningitis and purpura, which were looked on as complications, though 782 persons had died during the same autumn from cerebrospinal fever. During the Irish epidemics of 1846 and of 1866-67 many pigs died of "the purples." Uspenski, in 1896, reported a case in a dog, and suggested that it was one of the diseases vulgarly comprised under the designation of "distemper." How far the disease might be spread by the intervention of domestic animals, and how long or under what conditions the tetracoccus could maintain an extracorporeal existence were problems that, with our recently-acquired knowledge of the specific microbe distinguishing it from non-specific or pneumococcal meningitis, we should ere long be in a position to decide.

Professor **NOTTER** said that the cases he had seen in India were exclusively among the men in crowded barracks, the officers, non-coms., and married men having been exempt.

Dr. **STOTT** stated that in America the herpetic eruption was looked on as diagnostic of the specific disease.

Dr. **WASHBOURN** disapproved of the term "epidemic," since the specific disease was frequently sporadic, especially among children. Influenza rendered the individual specially susceptible to pneumococcal infection which might set up a meningitis, but the nature of each case could be easily determined by the examination of the fluid obtained by aspiration in the lumbar region, which would show tetracocci or pneumococci.

Dr. **STILL** had found the tetracoccus in all the cases he had examined of the post-basic meningitis of infants, which he believed to be identical with sporadic specific cerebrospinal meningitis. In these the retraction of the head was very constant, optic neuritis rare, but amaurosis frequent, but he had seen the eruption in two occasions only; the duration of this form was also longer, though the seasonal incidence was the same, namely, in autumn and spring.

Dr. **LOW**, in reply, to a question, said that lumbar puncture, if performed below the end of the cord, was devoid of danger, easy and almost painless, and in our present state of knowledge really indispensable to the correct diagnosis of all but typical cases. The cases associated with rheumatism, joint affections, parotitis, otitis, etc., were pneumococcal.

SOCIETY OF ANÆSTHETISTS.

DUDLEY BUXTON, M.D., M.R.C.P., President, in the Chair.

Friday, January 20th, 1899.

RESUMED DISCUSSION ON THE CHOICE OF AN ANÆSTHETIC.

MR. HENRY DAVIS thought the safety of the patient must be the first consideration. He commenced the administration with gas and ether; thus the patient was steadied and stimulated, and so better able to withstand the shock of the operation. Subsequently if necessary he changed the anæsthetic. For operations upon the upper air passages he employed gas and ether, but in prolonged operation he used chloroform in the later stages, even though the patient was sitting up. The position of the head was important, and he mentioned the posture which he preferred for various operations. Gas and ether usually sufficed in abdominal sections, but chloroform was sometimes required to produce the necessary muscular relaxation. Alcoholics took gas and ether well, but in some cases full anæsthesia could only be produced by chloroform. Ether was contraindicated when there was heart disease with effusions into the serous cavities, although a small amount at the commencement of the operation might safely be given. The same applied to renal conditions.

Mr. **WARRINGTON HAWARD** disagreed with many of Mr. Owen's remarks. Personally he believed that when properly given, ether was as valuable for children as for adults. Statistics showed that it was the safer anæsthetic. It had been said that the anæsthetic might be regarded from two points of view—that of the anæsthetist and that of the surgeon; but he considered that the most important point of view was that of the patient, and this, he believed, was "safety" above everything. No adequate proof had been advanced to show that ether was not in every sense the safer anæsthetic. The fact of its being less agreeable, which he doubted, was really trivial. In abdominal surgery ether had always fulfilled his requirements, due muscular relaxation being obtained. In operations on the throat the use of ether did not, he contended, increase hæmorrhage. Chloroform was probably more convenient in operations on the larynx and upper air passages, and in staphyllorrhaphy, although he had given ether successfully for that operation. Cocaine was most dangerous for children. Possibly, in cases of abdominal distension and intestinal obstruction with vomiting, local anæsthesia by cocaine might be useful.

Sir **FELIX SEMON** contended that in chronic stenosis of the upper air passages chloroform was the best anæsthetic, as ether increased the dyspnœa and the liability to subsequent pulmonary complications. He narrated a case of laryngectomy. The patient was anæsthetised by ether through the rectum, and died within twenty-four hours, mainly, he thought, from the severe complications set up by the ether. Operations for the removal of adenoid growths required chloroform, and, if skilfully given, it was the best anæsthetic, since it allowed the careful and thorough performance of the operation. It was to be regretted that many persons at the present time undertook such cases without sufficient experience or skill. This accounted for, he thought, many of the fatalities which had occurred during this operation. In every fatal case either the operator or the anæsthetist had been devoid of special skill.

Dr. G. H. **SAVAGE** had found that lunatics took anæsthetics well; bad after-effects, that was, those affecting the nervous system, had in his experience followed chloroform. That anæsthetic, he thought, was the best for prolonged narcosis obtained to relieve maniacal delirium.

Dr. **MACNAUGHTON-JONES** regarded ether as the safest anæsthetic; it was also the most rapid one in its action. Chloroform was unfortunately used by many who were too inexperienced in its use to ensure safety. Collapse was often the result of the operation and not of the anæsthetic. He contended that the experienced anæsthetist saw coming dangers and prevented them, and this made him deprecate the relegation of the anæsthetic to the inexperienced. For gynæcological operations he found the use of gas and ether was quite satisfactory, also in ophthalmic operations except in cases of glaucoma. He advocated the plan of leaving the choice of the anæsthetic to the expert anæsthetist.

Mr. **STANLEY BOYD** agreed with what Mr. Haward had said about ether. His experience at children's hospitals had taught him that chloroform was not a safe anæsthetic for children. He thought that much of its danger arose from the want of experience of the house-surgeon or irresponsible person who too often gave it. He had recently used with success morphine before the general anæsthetic. The posture of the patient in operations upon the mouth and nasopharynx was, he thought, a very important point affecting the choice of the anæsthetic. The awkward movements during abdominal operations were often due to undue haste in the production of the anæsthesia, and were therefore preventable.

Mr. G. **EASTES** preferred ether. In cases of degeneration of the heart in low blood tension and in the sitting posture he thought chloroform should not be used. For adenoid cases he used ether but not gas, as he thought it caused congestion. The A.C.E. mixture was, he held, one which had been too severely criticised; it was, he felt, the best for those who possessed no special skill. Cocaine he regarded as a very dangerous drug, especially in the case of children.

Mr. C. C. **BRAINE** used the A.C.E. mixture for young children; he also used it in cases of abdominal distension. In these cases he advocated lavage. In thyroidectomy he used morphine and then chloroform.

After some remarks from Mr. H. **LOW**, Mrs. **DICKINSON BERRY**, Mr. **TYRRELL**, and the **PRESIDENT**; Mr. **WHITE** replied.

GLASGOW SOUTHERN MEDICAL SOCIETY.

R. H. PARRY, L.R.C.S., in the Chair.

Thusday, January 19th, 1899.

PNEUMONIA AND BRONCHITIS.

DR. J. LINDSAY STEVEN introduced a conversation on the meaning of the terms broncho-pneumonia, catarrhal pneumonia, lobular pneumonia, capillary bronchitis, lobar pneumonia. The pathology of broncho-pneumonia was not at all difficult; clinically there might be many difficulties. Broncho-pneumonia, lobular pneumonia, and capillary bronchitis were practically different names for the same condition. He, however, would restrict the use of the term "catarrhal pneumonia" to the similar condition found in the early stages of phthisis. In all pneumonias catarrh was involved. Lobar pneumonia was of clear and precise significance to the pathologist and the clinician; it was a specific disease—practically a specific fever. Broncho-pneumonia anatomically presented no difficulty—an inflammatory lesion, involving the lobular bronchioles and lobular parenchyma, alveolar and interstitial, there might be difficulty etiologically and bacteriologically. Primarily, the lesion was bronchial and not arterial, as in cases of blood poisoning or erysipelas; the pulmonary condition in such cases was produced by emboli. In broncho-pneumonia the infection came through the bronchial tubes, although the germ present might be identical in each. In broncho-pneumonia there was congestion of the bronchial tubes, consolidations which affected neighbouring alveoli by extension, thickening of the bronchiole wall, with filling up of the spaces between. With these conditions areas of collapse or areas of emphysema might alternate. In tuberculous affections the anatomical conditions might be identical, and Weigert had pointed out that in children there might be a chronic miliary tuberculosis. Dr. Steven illustrated his remarks on the pathology of these conditions with water-colour drawings. Clinically, the ordinary broncho-pneumonia was usually a secondary disease, and was preceded by measles, scarlet fever, or diphtheria, perhaps some little time before, but not due to the specific micro-organism of any of these diseases. There was no specific germ of broncho-pneumonia; the usual germ present was the staphylococcus pyogenes or other pus-producing germ. In lobar pneumonia the germ was Fraenkel's pneumococcus. Many cases of broncho-pneumonia ended in tubercle. In broncho-pneumonia the disease had no set term; the course of the temperature was not constant, and was remitting. The physical signs might be only those of a general bronchitis; careful auscultation showed patches of fine crepitus; the patch persisted and went on to dulness.

Dr. **ALEX. MILLER** met with the disease as a primary affection following catarrh as the result of an ordinary chill; for the first forty-eight hours there was a rise of temperature, then localised crepitation was found. Expectorant and diaphoretic treatment should be employed, the following being given: Liq. ammon. acet., spt. etheris, nit., and perhaps tr. aconiti in ♏½ doses, carefully watching its effect. Poulticing in the early stages relieved the bronchioles, and should be followed by stimulating expectorants.

Dr. **STEVENS**, in reply, said the catarrhal pneumonia of phthisis was neither lobar or lobular; it respected no boundaries, and commonly broke down. There was no technical term to express the pulmonary condition in septicæmia. He did poultice in broncho-pneumonia, but he never put a fly blister on a child. In lobar pneumonia he used poultice only for the relief of pain.

LIVERPOOL MEDICAL INSTITUTION.

Thursday, January 26th, 1899.

R. S. ARCHER, M.D., Vice-President, in the Chair.

SARCOMA OF LEG.

MR. **ANDREW STEWART** showed as a card specimen the left leg of a boy, aged 17 years, who had shown no symptoms until six weeks previously, when pain and swelling behind the knee caused him to seek medical advice. The patient was admitted into the Birkenhead Borough Hospital on January 23rd. Amputation through the middle third of the thigh was performed on January 24th; the patient died from exhaustion on January 26th. The growth was examined by Dr. Warrington, and his report stated that it was a spindle- and round-celled sarcoma.

THE VACCINATION ACT, 1898.

Dr. **PERMEWAN** moved:

> That the members of the Liverpool Medical Institution are of opinion that the Vaccination Act, 1898, was enacted in direct opposition to the findings of the Royal Commission; that the operation of the Act will be prejudicial to the public safety; and that its amendment is urgently required.

In introducing the resolution, Dr. Permewan said that he thought it the duty of every association of medical men to express themselves unmistakably on the pernicious character of this Act. The principle of contracting out ought not to be applied to sanitary legislation; either vaccination should be absolutely voluntary or compulsion should be complete and efficient. It was most illogical to prosecute and convict of manslaughter parents who omitted to provide medical attendance for their children during illness because they conscientiously believed such attendance to be useless, and at the same time allow them, on what were called conscientious grounds, to neglect to provide for their children what the Royal Commission had found to be a protection against a specific loathsome disease. The results of the Act had been most lamentable. A public vaccinator of a large district had told him that now not one in five children were being vaccinated in his district where formerly nearly all had been vaccinated.

Dr. **HOPE** considered that the terms of the resolution were in no sense too strong, and quoted extracts from the report of the Royal Commission showing that the Act was in direct opposition to the views which the Commission expressed. He also alluded to the mischief already resulting from the closing of the vaccination stations, which he considered most unfortunate and ill-judged. He seconded the resolution with the hope that it would be unanimously adopted.

This was put to the meeting and carried *nem. con.*

RADIOGRAPHS OF CHEST.

Mr. C. **THURSTAN HOLLAND** showed radiographs of the normal chest of a boy, and also of the chest of a boy in whom the left apex was in a state of tuberculous consolidation. The difference was most marked, as also was the difference between the two sides in the affected child; this difference could also be plainly seen with the fluorescent screen. The exposure with a 10″ coil was 60 seconds. The boy was 6½ years of age.

FAUCIAL TUMOURS.

Mr. **BANKS** described three cases of removal of tumours lying external to and behind the tonsil, with lantern slide illustrations. The first case was that of a young man in whom the tumour had been growing for many years, and had attained such a size as to cause a marked projection behind the vertical ramus of the jaw. It was removed by the mouth, a vertical incision being made over it; it easily shelled out without hæmorrhage, and was found to be an adenofibroma, as had been diagnosed. The second was a precisely similar case in a woman, aged 40, with a history of two years' growth of the tumour. As she was very stout and full-blooded, a preliminary laryngotomy was done, and the pharynx packed with sponge, but the bleeding was only trifling, and the tumour was easily shelled out with the finger. The third case was different, the patient being a small, thin, pale woman, about 20 years of age. A swelling had appeared behind the right tonsil about eight or ten weeks before admission, and had been steadily and rather rapidly increasing. There was a great deal of pain in it, and the swallowing was seriously interfered with. The swelling was very elastic and ill-defined, insomuch that there was a question as to whether it might not be inflammatory, having as a focus some small, very deep-seated collection of pus. Under chloroform an exploratory incision was made; through the thinned and flattened-out tonsil the finger came upon a distinct tumour, which felt as if it could be shelled out. In about a fortnight the patient's sufferings became extreme, and she was in danger of choking. A preliminary laryngotomy was done, and the pharynx plugged; then a free incision was made over the tumour, and enucleation effected. The tumour was found to be so adherent to bone at its furthest-off point that the cheek was slit up and the lower jaw rapidly divided. This gave a good view of the deep parts, and when the growth was finally torn away it was found to be adherent to the side of the body of the third cervical vertebræ and to the base of the skull. Owing to very little use of cutting instruments the bleeding was slight. The jaw was drilled and wired, and the cheek and jaw soon united, but there was undoubted evidence that the tumour was beginning to grow from its deeper parts. Naked-eye inspection and the microscope showed it to be sarcomatous.

Mr. **PAUL** referred to 6 cases of œdematous tumour which he had met with in the palate and fauces, 3 ulcerating and 3 encapsuled. The latter were perfectly innocent, but the former class sometimes showed a malignant tendency.

TUMOURS OF ŒSOPHAGUS.

Dr. **PERMEWAN** described two cases of tumours of the œsophagus which he had removed by subhyoid pharyngotomy. The first case, in which the growth was benign, died from the immediate effects of the operation; the second recovered. Dr. Permewan stated that the conclusions he had arrived at with regard to this operation were (1) that subhyoid pharyngotomy was justifiable in spite of the large percentage of cases in which death occurrred after this operation; (2) that it was admirably adapted for the removal of growths from the lower pharynx, upper part of the œsophagus, and also from the upper aperture of the larynx. As a preliminary to resection of the larynx it was valuable, giving a more complete view than that obtained by thyrotomy; (3) that to ensure a safe operation a preliminary tracheotomy was necessary; (4) that no attempt should be made to close the wound after operation, but that it should be plugged with gauze and allowed to heal by granulation; (5) that feeding should be by the œsophageal tube exclusively.

Messrs. **NEWBOLT, BANKS,** and **LARKIN** spoke.

SOME POINTS IN THE SURGERY OF THE PARALYSES OF CHILDREN.

Mr. **ROBERT JONES**, in a paper on this subject, deplored the lack of interest displayed by the profession in the treatment of these affections. This was due to the pessimism derived from the pathology. It was essential there should be surgical supervision almost from the onset, as without mechanical and operative help the physician was powerless. The pathology required working up and further experiments made. These should consist of inoculations at an early stage, and of a search for the microbe. In view of recent experiments of his own, of outbreaks of an epidemic character at Stockholm, in America, and in Australia, there was strong evidence of the influence of infection. With care, most of the deformities of poliomyelitis might be avoided, more especially those due to contractures, and by mechanism, so applied as to equalise groups of antagonistic muscles, apparently very old paralyses could be remedied. A diagnosis, often difficult, should be made between a paralysed group of muscles and a group merely rendered useless by the uncontrolled action of opponents. Mr. Jones discussed the question of tendon grafting, and the conditions suitable to it. He thought the operation likely to prove very valuable in a number of cases. He had operated upon seven cases. In two he had inserted the sartorius into the tendon of the paralysed quadriceps. In wo cases he had inserted the peronei into the paralysed tendo Achillis for talipes calcaneus. In one case he reinforced the tibialis anticus by means of the peroneus longus. In a case of talipes equino-valgus the peroneus longus might be inserted into the tibialis posticus, or instead of the peroneus longus a strip of the tendo Achillis. Mr. Jones had operated upon over 60 cases of flail joints in accordance with the rules he laid down in 1894. Suppuration only occurred in one case. No matter what the trophic changes, healing seemed to occur without hindrance. He often ankylosed both knee and ankle at the same operation. In talipes calcaneus a good view of the joint might be got from behind, the cartilage freshened, and the tendo Achillis could be at the same time shortened. This operation he substituted for Willett's. After obtaining short fibrous or bony ankylosis in knee and ankle, the psoas and iliacus muscle moved the limb in one piece, and so expensive and troublesome appliances could be dispensed with. In dealing with spastic paraplegia, Mr. Jones combated the dicta of neurologists in regard to tenotomies. He divided the tendo Achillis and any other tendons which were tense, and in obstinate cases exsected portions of the adductors. Both limbs were then kept in extreme adduction for several weeks. Very fair walking results were obtained. In very spasmodic cases he strongly urged arthrodesis. Mr. Paul quoted in support of tendon grafting the result obtained in a case in which the distal end of the tendon of the long flexor of the thumb was grafted on to that of the index finger. The boy ultimately became a fair pianist, and could flex either digit independently, presumably by automatic action of opposing muscles.

Messrs. **MURRAY, WARRINGTON,** and **BARR** took part in the discussion of the paper.

LARYNGOLOGICAL SOCIETY OF LONDON.—At the annual general meeting, held on January 6th, Mr. H. T. **BUTLIN** (President) in the chair, the following were elected officers for the ensuing year:—*President:* F. de Havilland Hall, M.D. *Vice-Presidents:* A. Bronner, M.D., and W. H. Stewart, F.R.C.S.Edin. *Treasurer:* Clifford Beale, M.D. *Librarian:* J. Dundas Grant, M.D. *Secretaries:* William Hill, M.D., and Lambert Lack, M.D. *Council:* Edward Law, M.D., Walter Spencer, M.S., F. W. Milligan, M.D., A. Bowlby, F.R.C.S., and Herbert Tilley, F.R.C.S.—The forty-sixth ordinary meeting of the Society was subsequently held, the **PRESIDENT** being in the chair.—Dr. **STCLAIR THOMSON** showed: (1) a boy, aged 15, suffering from Chronic Nodular Laryngitis; (2) two Cases of Chronic Laryngitis, entirely limited to the Right Vocal Cord, and probably Tuberculous in Character.—Dr. **SCANES SPICER** showed: (1) a Case of Cure of Chronic Empyema of Maxillary Antrum by Radical Operation; (2) a specimen of Dead Bone, Polypi, and *Débris* removed from a case of Chronic Empyema of Antrum cured by Radical Operation in eight weeks.—Dr. **BARCLAY BARON** (Bristol) reported that he had sent a piece of growth removed from his case of Sarcoma of the Nose shown at the November meeting to the Morbid Growths Committee. They reported it to be an alveolar sarcoma, and showed sections of it at the December meeting. The growth rapidly increased both within the nose and externally, displacing the eye outwards. At Dr. Baron's request, Mr. Charters Symonds kindly undertook its removal, full view of the growth being obtained by enlarging the opening in the superior maxilla made by the disease. The dura mater was found to be exposed in one place, the bone covering it having been destroyed, and it would, therefore, have been a dangerous procedure to attempt to curette the interior of the nose without seeing what was being done. The patient made a quick recovery, and there was very little disfigurement.—Dr. **WATSON WILLIAMS** showed a specimen of Peg removed from Maxillary Antrum through the Ostium Maxillare.—Mr. **WYATT WINGRAVE** showed a woman, aged 30, with Lupus of Nose.—Dr. **HERBERT TILLEY** showed a female dwarf, aged 45, suffering from Tuberculous Laryngitis.—Sir **FELIX SEMON** showed two cases of Epithelioma and one of Sarcoma of the Larynx treated by Thyrotomy, and keeping well 2½ years, 1½ year, and 6 months respectively after operation.—Dr. **MILLIGAN** showed the following specimens: (1) Lymphangioma of Vocal Cord; (2) Laryngeal Papilloma; (3) Nasopharyngeal Fibro-sarcoma; (4) Large Exostosis removed from Maxillary Antrum.—Dr. **JOBSON HORNE** showed a case of Multiple Papillomata occurring in the Larynx of a woman, aged 22.—Dr. Bronner (Bradford) showed a microscopic specimen of a Tubular Epithelioma of the Nose.—Mr. R. Lake showed a case of Right Recurrent Paralysis with Paresis of Trapezium, Sterno-mastoid, and Palate, with Slight Ptosis and Facial Paralysis, all on the same side.—Mr. C. A. Parker showed a case of Growth of Left Vocal Cord in a man, aged 32.

Dermatological Society of Great Britain and Ireland.—At a meeting on January 25th, Dr. H. Radcliffe Crocker, President, who was in the chair, read a paper on Recurrent Desquamative Scarlatiniform Erythema.—The following cases were shown by the President: (1) Male patient with Lichen Planus; (2) male patient with patch on anterior surface of wrist of Tinea Circinata, Fungus and Mycelium from case shown under microscope, and also a drawing of it exhibited. The President also exhibited other interesting drawings.—Dr. Stowers: An infant with Lichen Planus, and a patch of Lichen Verrucosus on right index finger.—Dr. P. S. Abraham: (1) Male, aged 50, Dermatitis Herpetiformis; (2) female, age about 30, with Dermatitis Herpetiformis; (3) Atrophodermia Guttata in a female about 30.—Dr. Russell Ryan: A case of Lichen Planus.—Dr. T. D. Savill: Two children, aged 10 and 6 years, Psoriasis Guttata (?), Lichen Scrofulosorum; (3) a Symmetrical Maculated Purpuric Rash in a girl of 19 on thighs, legs, and arms.—The President, Dr. Abraham, Dr. A. Eddowes, Dr. Stowers, Dr. Savill, Mr. Pernet, and others took part in the discussions.

Nottingham Medico-Chirurgical Society.—At a meeting of this Society, on January 18th, Dr. Cattle, Vice-President, in the chair, Dr. Michie read a paper on Suppuration in the Neighbourhood of the Pregnant Uterus, and gave details of seven cases that had come under his own notice. These cases fell into three groups: (1) The first was a case of perityphlitic abscess, due to perforation of the appendix vermiformis by a concretion in the fifth month of pregnancy. Dr. Michie performed an operation for the removal of the appendix and drainage of the abscess cavity, which extended into Douglas's pouch, where the concretion was also found—the patient making a good recovery and going on to term. (2) This group consisted of 4 cases of pyosalpinx, in each of which the appendages were removed—in one during the fifth month of gestation, the patient afterwards going on to term, delivery and convalescence being in every way normal. In another case the appendages were removed during the fourth month. This patient was, however, suffering from severe septic poisoning, due to a large quantity of putrid pus in the peritoneal cavity, and extensive peritonitis. Miscarriage took place twenty-four hours after the operation, and she died on the fourth day. In two others, where there was also a large quantity of sero-purulent fluid in the abdomen, the operation was performed almost immediately after delivery, at the fourth month, and at term respectively; in both instances recovery took place. (3) The third group consisted of 2 cases of suppurating ovarian cysts, complicating pregnancy, which Dr. Michie had met with. In one ovariotomy was performed during the process of labour at the sixth month. Delivery was completed four hours after the operation, and though the patient's condition was extremely critical for some days, she ultimately made a complete recovery. In the last case a suppurating cyst was removed during the fifth month, the patient making an easy recovery, and being delivered of a healthy child at term. In the light of these cases, Dr. Michie drew attention to the necessity of inquiring into the previous history of patients suffering from "puerperal fever," as they showed that not in every instance, at least, was that disease due to infection conveyed from without at the time of or shortly after delivery, but that occasionally septic mischief might be in existence some time before labour took place, and be greatly aggravated and become extremely serious by the mechanical effects of that process. The paper was discussed by Dr. Cattle, Mr. Chicken, Mr. Hogarth, and Dr. Wood.—Notes on a case of Pseudo-hypertrophic Muscular Paralysis were read by Dr. Lander, a complete history of the patient being given from birth to death, which occurred at 16½ years. Photographs were shown illustrating various stages of the disease. The latest photographs were especially interesting, as they showed marked hypertrophy of the temporal muscles.—Mr. E. C. Kingdon showed a patient who had a small Congenital Tumour visible beneath the conjunctiva of the lower and outer part of the orbit, and projecting prominently when the lower lid was everted. Mr. Kingdon considered it was a dermoid. Mr. Laws suggested that it was a fatty tumour.—Mr. R. C. Chicken showed the following specimens: (1) Fibroid Tumour of the Uterus, for which abdominal hysterectomy had been performed; (2) Tubal Abortion; (3) Large Hydrosalpinx.—Dr. Michie showed a specimen of Carcinoma of the Large Bowel, for which he had done enterectomy four days previously. The growth was an ordinary columnar carcinoma. Union was effected by suturing only. The result up to the time of the meeting had been perfect, all vomiting having ceased, and the condition having much improved.

Kidderminster Medical Society.—At a meeting on January 27th, Mr. E. H. Addenbrooke, President, in the chair, Mr. T. Lionel Stretton showed: (1) A girl, aged 20, upon whom he had performed Excision of the Elbow-joint three years previously. She was now able to perform the duties of domestic servant; (2) a Cystic Tumour weighing 3 lb. 12 oz., removed from the scalp of a man aged 69. Four years previously a large sebaceous tumour was removed from the same situation; (3) a man, aged 63, upon whom he had operated for Recurrent Epithelioma of the Lip.—Mr. W. Hodgson Moore showed a Melanotic Sarcoma removed from the cheek of a woman aged 69. The growth supervened on a mole.—Mr. Oliphant showed: (1) The Brain of a Woman, aged 50. There was a spindle-celled sarcoma about the size of a turkey's egg growing from the meninges over the fissure of Sylvius on the left side and compressing the frontal and temporal lobes. There was a very indefinite history and the symptoms materially improved under iodide of potassium. (2) Skiagraph of a Fracture of the Right Tibia in a young man, aged 21. He slipped at football, and when admitted to the hospital there was so much swelling that an accurate diagnosis could not be made. The skiagraph showed a transverse fracture through the thickest part of the lower end of the tibia and a second through the internal malleolus, which was displaced downwards to an extreme degree.—Mr. B. Addenbrooke showed specimens of Tubercle Bacilli in milk.—Mr. J. Lionel Stretton read a paper on the Treatment of Tuberculous Disease.—After discussion the following resolution was adopted:

> That the attention of the local authorities be drawn to the importance of safeguarding the public from the spread of tuberculous disease.

North of England Gynæcological Society.—At a meeting held at Manchester on January 20th, Dr. Donald, President, in the chair, Dr. Briggs (Liverpool) showed a Soft Fibroid Tumour removed from the uterus by enucleation through the abdomen.—Dr. Nathan Raw showed a Ruptured Uterus with an ovarian cyst, removed by abdominal section after delivery of a child at term. The patient, a multipara, had been in labour for three days; she was then seized with sudden pain in the abdomen, and hæmorrhage with great collapse. On admission to the hospital she was pulseless, and four pints of saline fluid were transfused into the median basilic vein with very beneficial results. On examination the vaginal vault was pushed down by a large, firm swelling above suggesting an ovarian tumour. The os was high up under the pubes. The umbilical cord was prolapsed and the placenta lay in the lower uterine segment. This was rapidly detached and a foot brought down. A coil of bowel was then discovered in the uterus, showing that rupture had occurred. The child was quickly extracted, and a large tear in the posterior wall discovered. Saline fluid was again transfused and abdominal section at once performed. The peritoneal cavity contained a large quantity of blood clot, and the contents of the ovarian cyst which had undergone torsion and ruptured. The uterus was rapidly amputated and removed, together with the cyst. The patient rallied well, but gradually sank from exhaustion, dying on the third day. The President made remarks.—Dr. T. Arthur Helme read the notes of a case of Degenerative Fibroid Tumour removed together with the Uterus and Ovaries by Abdominal Section. The patient, aged 29, made a rapid and uneventful recovery. Remarks were made by Drs. Davies, Walter, Lloyd, Roberts, and Briggs.—Dr. W. E. Fothergill read a paper, entitled, some Autointoxications of Pregnancy and the Puerperium. The presence of albumen in the urine of eclamptic women and the occurrence of various lesions in the kidneys had led to the view that eclampsia was of renal origin. There was, however, a large amount of evidence in favour of the conclusion that it was rather the result of a general intoxication or poisoning. The urine, though scanty, was low in toxicity, whilst the blood serum was two or three times more poisonous than the serum of health. Necrotic and hæmorrhagic lesions were constantly found in the liver in these cases, and it was probable that this was the organ chiefly at fault. Jaundice was often associated with eclampsia and in acute yellow atrophy, often arising during gestation; the liver changes were an exaggerated form of hepatic lesions found in eclampsia. The various disorders of the nervous system—such as peripheral neuritis, myelitis, etc.—which occurred in pregnancy were clearly toxic in origin, and it was probable that mania and melancholia were also intoxications. It was probable that the extra strain thrown upon the various organs of excretion during pregnancy might lead to a loss of equilibrium between the poison production and poison excretion of the body, and this had been confirmed by numerous investigations on the relative toxicity of the blood serum and urine during gestation and in health. Although the subject was not yet fully worked out, the autointoxication theory formed a good working hypothesis, and might afford a new system of classification of the various troubles of pregnancy. A large number of these might in the future be classified under the term "hepatic toxæmia," as suggested recently by Pinard. Remarks were made by Dr. **WRIGHT** and Dr. **GEMMELL**.—The following were elected office bearers for the year 1899:—*President*: Dr. Donald. *Vice-Presidents:* Drs. J. Benson, J. Braithwaite, J. N. Cregeen, W. E. Fothergill, J. E. Gemmell, C. Richardson, W. J. Sinclair, G. E. Thorpe. *Honorary Treasurer:* Dr. Richard Favell. *Honorary General Secretary:* Dr. Arnold W. W. Lea. *Council:* Drs. R. A. Brannigan, E. Buxton, C. N. Gwynne, T. Arthur Helme, D. L. Hamilton, J. B. Hellier, T. D. Leigh, J. Matthews, E. H. Monks, S. Nesfield, W. Smith, D. Lloyd Roberts, P. E. Scowcroft, J. P. Stallard, John D. Martin, D. Smart, C. Vereker, A. E. Wear, W. Walter, R. E. Williamson. *Honorary Local Secretaries:* Drs. John Scott (Manchester), W. Fingland (Liverpool), E. O. Croft (Leeds), H. Rhodes (Sheffield).

GLASGOW OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.—At a meeting on January 25th, Dr. A. **MILLER** (President) in the chair, Dr. **JOHN EDGAR** showed two Ovarian Dermoids removed from a patient by abdominal section.—Dr. **JOHN LINDSAY** read a paper on a case of Defective Development of the Limbs. Several drawings of the muscles and bones of the limbs were shown.—Dr. **ROBERT JARDINE** read a paper on Intracellular Saline Injections in cases of Hæmorrhage and Eclampsia. The instrument used was simply a trocar and cannula attached by a piece of tubing to a glass filter. The solution contained a teaspoonful of common salt, and in the cases of eclampsia the same quantity of bicarbonate of potash, to a pint of boiled water, and was injected into the loose cellular tissue beneath the breasts. Of the 5 cases of hæmorrhage described, 2 were examples of accidental, and 3 of *post-partum* hæmorrhage. In one the hæmorrhage was very profuse and the shock extreme. All recovered. Dealing with transfusion in cases of eclampsia, 5 cases were described: Case I was moribund when first seen and died, although the saline solution seemed to improve the pulse. Cases II and III were very severe examples of the disease. They both recovered. The saline injections had a most marked effect in increasing the quantity of urine excreted. Cases IV and V were milder cases. Dr. Jardine said the saline injection should be used only in conjunction with some drug to control the fits, such as chloroform, chloral and bromide, morphine, veratrum viride. Morphine in large doses he was inclined to think the best.

CHELSEA CLINICAL SOCIETY.—At a meeting on January 17th, Mr. J. **FOSTER PALMER**, President, in the chair, Dr. C. C. **GIBBES** read a paper on the Pathology of Mitral Stenosis, bringing forward a new theory, that the so-called presystolic *bruit* was composed of three parts, namely, an auricular systolic *bruit*, right ventricular muscle vibration, and a slapping first sound; the muscle vibration being the cause of the peculiar and intimate relation between the *bruit* and that sound, and also prevented that lack of continuity between the two murmurs being heard in double mitral disease, which were audible in double aortic. Dr. **BLACKER** had examined a case of mitral stenosis sent him by Dr. Gibbes by means of the *x* rays, and found the pleximetric percussion area as drawn by Dr. Gibbes coincided with the shadow thrown on the screen. He also retained the impression that the contraction wave started from the region of the right ventricle. The **PRESIDENT**, Dr. **EWART**, and Dr. **PENNY** also spoke, and Dr. **GIBBES** replied.—Dr. **BLUMFELD** read a paper on the Administration of Ether to Infants and Young Children. He maintained that ether was a good anæsthetic for infants and children, and attended with far less risk than chloroform. He fully admitted the use of chloroform in the hands of those constantly engaged in anæsthetics. It was his own practice to precede the ether by nitrous oxide gas, and this method was very satisfactory even in the case of young infants. If cases were properly selected and sufficient air admitted during administration, lung trouble did not follow; nor had he ever seen serious after-sickness. With infants so little ether and so simple an apparatus sufficed, that arguments for chloroform, based on its convenience, fell to the ground. A discussion took place, in which Dr. **GIBBES**, Dr. C. J. **HARRISON**, Dr. **EWART**, Mr. **MORRIS**, Mr. **PENNY**, and Dr. **BARRY BLACKER** took part. Dr. **BLUMFELD** replied.

REVIEWS.

TWENTIETH CENTURY PRACTICE OF MODERN MEDICAL SCIENCE. Edited by T. L. STEDMAN, M.D. Vol. XIV. London: Sampson Low, Marston, and Co. 1898. (Roy. 8vo, pp. 602. 30s).

THIS volume is devoted to a systematic consideration of the infectious diseases, among which, in addition to the exanthemata, we find cholera, whooping-cough, and beri-beri. There are thirteen articles and eleven contributors, of whom the great majority are from the American Continent.

The first disease described is scarlet fever, and has received full justice at the hands of Dr. Forchheimer. Although the style is somewhat cumbrous, the author's experience and knowledge of the subject render this a standard and valuable source of reference. The same writer gives an interesting account of German measles, and prefaces his article by an historical note, in which he fully discusses the specific and independent nature of the disease.

Dr. Dawson Williams has contributed two articles: on measles, and on the recently-recognised glandular fever. The former contains some charts and illustrations of isolation boxes in use in Paris for patients with measles. The valuable handbill for the prevention of measles issued to parents and others in Glasgow by Dr. J. B. Russell has been reprinted here, and it is to be hoped that its appearance will lead to its being widely copied. In glandular fever the infective agent probably gains an entrance through the alimentary canal; in this way it resembles the form of pestis minor associated with intestinal disturbance, described by medical officers in the service as "non-venereal bubo."

Dr. Dillon Brown's account of chicken-pox is at once concise and complete, and contains some interesting cases of varicella gangrenosa. The article on whooping-cough is conjointly contributed by the late Dr. J. O'Dwyer and Dr. Norton, of New York. After a careful review of the bacteriology the authors conclude that the weight of the evidence at present available is in favour of Koplik's bacillus being the specific micro-organism. Dr. O'Dwyer, having had whooping-cough when over 40 years of age and complete spasm of the glottis from other causes many times, could write graphically and with authority of the suffering induced by glottis spasm.

Professor A. Jacobi gives a very complete account of cholera infantum, and provides some valuable remarks on the normal feeding of infants under the heading of prophylaxis. Cholera nostras and Asiatic cholera have been exhaustively treated by Dr. Theodore Rumpf, director of the new general hospital at Hamburg. The article on Asiatic cholera occupies more than 150 pages, and is a storehouse of information and of practical observation which will serve as a valuable source of reference for many years. Sir Joseph Fayrer contributes an interesting description of the epidemiology and symptoms of dengue.

The essay on beri-beri is written by Dr. A. A. de Azevedo Sodré, of Rio de Janeiro, who was a member of a Commission appointed in 1893 to investigate the cause of the persistence of beri-beri in the Asylum for the Blind at Rio. This article is critical and exhaustive.

Professor Netter, of Paris, writes on miliary fever, and gives much attention to the sweating sickness, of which there were five epidemics between 1485 and 1551 in England. All these epidemics began in Great Britain, and, with the exception of one, remained limited to it.

Dr. David Bruce, the discoverer of the micro-organism of Malta fever, has very appropriately been selected to describe that disease, and has performed his task in a masterly fashion. He regards it as more probable that the infection is propagated through water or food than that it is taken in by the respiratory organs.

With this article the present volume ends, and, in conclusion, it may be said that the editor is to be congratulated on the discrimination with which he has selected his contributors, and that their work is worthy of their high reputation.

A SYSTEM OF PRACTICAL MEDICINE. By American Authors. Edited by ALFRED LEE LOOMIS, M.D., LL.D., and WILLIAM GILMAN THOMPSON, M.D. Vol. IV. London: Henry Kimpton. 1898. (Roy. 8vo, pp. 1120. 8 Plates, 95 Figures. 25s.)

THE fourth and concluding volume of this work contains the diseases of the nervous system, mental disorders, and articles on a number of important conditions, rickets, rheumatism, gout, obesity, scurvy, and Addison's disease, grouped together under the heading of "Miscellaneous Subjects." It would perhaps have been better if Addison's disease had been included in a former volume with diseases of other so-called ductless glands such as myxœdema.

The volume opens with an account of neuritis, neuromata, and the affections of the cranial and some other nerves by Dr. F. C. Finley. Dr. Allen Starr, who is well known as an able neurologist, has contributed two authoritative and well-illustrated articles on the diagnosis and localisation of spinal cord disease and on anterior poliomyelitis. Landry's paralysis is briefly described by Dr. Fisher, who places it directly after his account of myelitis, and thus somewhat arbitrarily separates it from neuritis. He regards it as a disease differing in every respect from any other form of paralysis, as, indeed, an entity. Locomotor ataxia is admirably dealt with by Dr. D. D. Stewart, who also describes lateral sclerosis and ataxic paraplegia. The other diseases of the spinal cord have been wisely entrusted to Dr. C. A. Herter, who provides reliable accounts of tumour, syringomyelia, syphilitic affections, progressive muscular atrophy, and the diseases of the pons and medulla.

The section on brain disease is introduced by an essay on cerebral localisation by Dr. Eskridge, who is also responsible for the accounts of encephalitis, abscess, and cerebral tumour. The important article on diseases of the cerebral blood vessels, by Dr. F. X. Dercum, contains a number of useful diagrams, and is well up to date. The editor, Dr. GILMAN THOMPSON, places sea sickness amongst the functional nervous disorders, and, after discussing the various theories already put forward to explain it, suggests that in the majority of the cases the liver is the cause of the symptoms; for being at once heavier and less firmly fixed than the other viscera, it moves excessively, and thus drags on the solar and splanchnic plexuses. Chorea and tetany are described by Dr. C. L. Dana. Dr. Peterson, who writes on epilepsy and paralysis agitans, would prefer to describe the latter disease as "rigor tremens," since the muscular weakness is more apparent than real. Neurasthenia is authoritatively dealt with by Dr. J. J. Putnam, while the peculiarities of traumatic neurasthenia are considered in Dr. Morton Prince's account of the traumatic neuroses. In his systematic description of the occupation neuroses, Dr. C. K. Mills gives an account of a fatigue neurosis of the ocular muscles in an actor who, after contorting his face and eyes for some time, began to suffer from diplopia.

Under the heading of vasomotor and trophic diseases, Dr. James Stewart, of Montreal, gives well-illustrated descriptions of acromegaly, Raynaud's disease, angioneurotic œdema, facial hemiatrophy, scleroderma, and vertigo.

Dr. Finley's account of the diseases of muscles does not include any mention of idiopathic myopathies, a somewhat striking omission. Among the important diseases included under the heading Miscellaneous Subjects, Dr. Gilman Thompson's articles on the various rheumatic and allied states are well illustrated, and show evidence of practical experience and literary research. Dr. Colman illustrates his account of Addison's disease with a coloured plate, showing white areas of atrophy, an unusual complication of bronzing of the skin. This article is fully up to date, and shows that the writer is thoroughly familiar with the literature of the subject.

Though the articles are not uniform in their quality, this work may be safely recommended to the practitioner as one useful for reference.

DIE LEHRE VON DER PELLAGRA, ÄTIOLOGISCHE, KLINISCHE U. PROPHYLAKTISCHE UNTERSUCHUNGEN. [Pellagra, Etiological, Clinical, and Prophylactic Researches.] Von CESARE LOMBROSO. Edited in German by HANS KURELLA. Berlin: O. Coblentz. 1898. (Demy 8vo, pp. 246; 5 plates. M.7.)

THE author in his preface deals with the difficulties experienced by him during his researches in connection with pellagra, which even among his colleagues gave rise to opposition, partly due to inborn conservative ideas, but more to the importance of the economical questions raised when attacking one of the oldest and most popular articles of food in use by the lower classes in the agricultural districts. His investigations occupied a period of 27 years, and the first part of the book is devoted to etiology and the result of experimental researches on animals fed with preparations of diseased maize.

The author, in view of his collected statistics, confidently attributes the disease to the extensive use of damaged and insufficiently cooked maize in the shape of polenta and maize bread. This is most apparent in the poorer country districts, and the connection between maize and pellagra was very obvious in 1879, when, owing to a deficient harvest at home, large quantities of the grain were imported under unsatisfactory conditions as to storage. Maize when mildewed or otherwise diseased is often consumed by poor cultivators owing to its unsaleableness, and purchased by others owing to its low price. The author was able to cultivate numerous micro-organisms both from the corn and the ground meal respectively. In the northern districts of Italy, where maize is used more largely than wheat, 5 per cent. of village populations have been known to be pellagrous.

As regards the symptoms they vary according to districts, and show the disease to be essentially constitutional, affecting more or less intensely all the organs of the body, and producing more especially nervous symptoms, motor, sensory, and psychic. Among the latter are many severe instances of melancholia leading to crime and a tendency to suicide, drowning being the death most frequently chosen. In addition to erythema, pigmentations have been observed, their degree bearing no relationship to the intensity of the disease. Brown atrophy of the heart and similar degenerations in the renal, hepatic, and cerebro-spinal cells are often found *post mortem*.

Other morbid conditions observed by the author were exudations and atrophy which was most frequently noticeable in the heart, lungs, kidneys, spleen, and intestine, though in certain cases the individuals were well nourished, and in two cases even muscular. Fatty degenerations of muscular tissue were rare, and when present affected groups of muscles only. Therapeutic and prophylactic measures are dealt with in the last portion of the work, and it appears that the administration of chloride of sodium, both internally and externally, and arsenic met with success.

PRESENTATION.—Mr. W. W. Fairfield, on resigning the post of Resident Medical Officer to St. Mary's Hospital for Children, Plaistow, which he had held for two years, was presented with a case of instruments by the staff of the institution as a mark of their respect and esteem.

NOVA ET VETERA.

A GREAT MEDICAL REFORMER.

THE reissue of Dr. Squire Sprigge's *Life and Times of Thomas Wakley* (Longmans and Co., 1899, price 6s.) in a cheaper form affords us the opportunity of presenting our readers with an extended notice of this important work, such as, for reasons which it is now needless to explain, it did not receive in this JOURNAL on its first appearance. We welcome the reissue on this account, and also because the work is one which should be read by every member of the medical profession in these kingdoms. If the medical millennium has not yet come, we are at any rate a great deal better off in every way than our professional forbears in the early years of the century. For this we have largely to thank Thomas Wakley, who was undoubtedly the first to show, in regard to medical affairs, that the pen of the journalist is an effective weapon against the giants of arbitrary authority and injustice.

Thomas Wakley, from an unpublished portrait.

The book, which is now published at a third of the original price, is, except in binding, identical with the first issue. Wakley's life is recorded in a clear and orderly narrative; the man is depicted as he lived and moved, and fought and conquered; his many battles—professional, journalistic, and political—are told in interesting detail; and although of course the figure of the hero is drawn full length, there is no lack of perspective in the picture, in which the medical history of the first half of the century is skilfully grouped around the man who was in the political sense one of the chief makers of that history.

Dr. Sprigge's task was far from an easy one in itself, and his official relation with the Wakley family made it peculiarly delicate. He is to be congratulated upon the skill with which he has steered between the Scylla of indiscriminating panegyric and the Charybdis of ruthless frankness, of which Mr. Froude set a bad example. He has produced a biography worthy of the remarkable personality who forms its subject. If the figure of the man is somewhat overshadowed by his work, that is because Wakley's life was almost wholly in his work. But Dr. Sprigge's lively style and feeling for effect have enabled him to clothe with literary flesh the dry bones of old parochial quarrels and forgotten professional squabbles. His book—although like most works of the kind it would have been better had it been shorter—has the saving virtue that it can be read, even by an "irresponsible indolent reviewer," not as a duty, but as a pleasure. Greater praise than this cannot be given to a book which, like Dr. Sprigge's, is a solid contribution to the historical literature of our time.

Wakley came of that sturdy yeoman stock which has for centuries been the backbone of our English race. He was born on his father's property in the parish of Membury in Devonshire on July 11th, 1795. He was the youngest of eight sons, all of whom took an active part in the work of the paternal farm; they were famous through the country side for their skill with the gun and their knowledge of horseflesh. He got such education as was then to be had at local grammar schools. He learnt what he was set to learn, but he was no bookworm, and grew up a fine specimen of a country-bred lad, strong, active, and fond of sports and athletic exercises.

At the age of 15 he was apprenticed to an apothecary of Taunton, and after a time he became the pupil of a relative who was in practice at Beaminster. After a term of service with another practitioner as assistant, he entered as a student of the united schools of St. Thomas's and Guy's in 1815. These were the days of privilege, monopoly, and vested interests in the metropolitan hospitals. The College of Physicians admitted none to its Fellowship but graduates of Oxford or Cambridge and members of the Church of England. Hospital appointments were treated as family livings, and were bestowed either by nepotism or by purchase disguised as apprenticeship. Did not Sir Astley Cooper once disclaim any intention of hurting the feelings of the surgeons to the Borough hospitals by the charmingly candid plea that one was his apprentice, another his godson, a third his nephew, a fourth his nephew, and a fifth his apprentice? Wakley, who was not a member of the privileged classes, felt bitterly the injustice which condemned men without money or influence to exclusion from the higher ranks of the profession.

Wakley worked hard as a student, which is in itself a testimony to his strength of character as at that time the London medical student was mostly of the Bob Sawyer type. In 1817 he became a Member of the College of Surgeons, and returned to his native place with the intention of practising there. Finding no opening, however, he returned to London in 1818, and after practising for a time in the City, he moved westwards to Argyll Street, then a fashionable part of London. Early in 1820 he married Miss Goodchild, the daughter of a wealthy lead merchant. His prospects when he brought his bride home were excellent, but not many months afterwards he was the victim of a mysterious outrage which completely changed the course of his career. On the evening of August 26th, 1820, his house was burnt down and a murderous assault was made upon him. The cause of the outrage was never clearly ascertained, but there is some reason to suspect that it was connected with the execution of the ringleaders of the Cato Street conspiracy, who had been hanged, drawn, and quartered some months before. The mutilation was carried out by a man in a mask, and an unfounded rumour somehow got about that Wakley had been the operator.

These events, with other troubles resulting from them, brought Wakley's career as a general practitioner to an end. He had suffered much anxiety and was almost ruined; he was therefore naturally inclined to believe that the world was out of joint. Just at that time he made the acquaintance of William Cobbett, whose virulent pen was directed against wrongs and abuses of all kinds. It is probable that from his association with Cobbett, Wakley conceived the idea of devoting himself to the reform of his profession. He determined to play the part of Joshua to the medical Jericho, shaking down the strongholds of nepotism and vested interests by journalistic trumpet blast. The undertaking was a bold one, for it was nothing less than a declaration of war by a young and unknown man against the powers and principalities of his own profession.

The first number of the *Lancet* was issued on October 5th, 1823. It was soon recognised by the inhabitants of the medical Olympus as a dangerous enemy. The editor was denounced as a literary pirate because he published reports of the lectures of some hospital surgeons and physicians which these gentlemen, with an eye to their class fees, were anxious to preserve for the exclusive benefit of their pupils. Nor did they stop at denunciations. During the first ten years of the existence of the *Lancet* the editor had on his hands no fewer than ten actions at law brought by eight different persons. Six of these were actions for libel. The aggregate sum claimed for damages was £8,000, and the aggregate sum awarded was £155 0s. 0¼d., while the editor's costs were largely defrayed by public subscriptions.

The first action was brought by John Abernethy, who, on December 10th, 1824, applied to the Court of Chancery for an injunction to restrain the publishers and printers of the *Lancet* from issuing his lectures. Some lectures of Sir Astley Cooper had already been published in that journal, a proceeding which Sir Astley Cooper appears to have regarded with curiously mixed feelings, if we may judge from the following remarks on the subject which he made to his class:

> When I found, week after week, that my lectures were published, and that consequently I was daily paragraphed in the newspaper, I called upon the editor of the *Lancet*, and told him that I was about to move for an injunction. He replied, "That will not be of any use." Well, gentlemen, in the end I told him that if he omitted my name I should take no further steps in the matter. He promised to do so, and as far as I have seen he has fulfilled his promise; and, of course, I have fulfilled mine. Indeed, lawyers' instructions to counsel have been this very day destroyed.
>
> Now, gentlemen, though I did not regard the publication of my lectures, I felt myself disgraced and degraded by my name for ever appearing in the diurnal press. Not a paper could I see but my name flourished in it in some form or other. This looked so much like quackery, so much like puffing, that I am unable to describe to you how much it annoyed me.
>
> Although the publication of my lectures exposes me to the critical ordeal of my professional brethren, yet I fear it not; I care not who may be made acquainted with the doctrines I advance, the instructions I give, the principles I inculcate while in this theatre. Therefore I am perfectly indifferent as to who publishes them, and equally indifferent as to who may be made acquainted with them.

Clearly Sir Astley, while anxious to put himself right with the profession by purging himself of any supposed complicity with the audacious journalist who stole his thunder for the benefit of mankind, was not altogether displeased that it should resound in a larger sphere than his lecture room. Abernethy, however, objected in good earnest to the greatness of publicity thrust upon him by the *Lancet*, and his objection was probably intensified by the remorseless accuracy with which his words were reported. The following extracts from a discourse on irritative inflammation, erysipelas, and furunculus which appeared on the very day after his application for an injunction, sufficiently explain the great surgeon's dislike of being presented to the public in the *déshabillé* of his lecture room:

> If I am wrong I shall be very happy to have my errors pointed out and corrected. I'll be hanged if erysipelas is not always a result of a disordered state of the digestive organs......... Egad, it is a travelling disease, and, as I say, the parts are disposed to swell......... If it is seated in an unimportant part, in the name of G—— let it go on there......... "O," said the dresser, "it is a case of erysipelas, and he only came in last week." "Good G—-!" said I, "Is it possible?......... Ho! he had his jawing tacks on board, as a sailor would say."

Wakley was ultimately victorious. Physicians and surgeons began to realise that the publication of their lectures, so far from doing them harm, brought them fame and fees. In this way Elliotson's practice went up in one year from a few hundred pounds to as many thousands.

It was a part of Wakley's plan of campaign to make the fierce light of the press beat about the thrones of the hospital autocrats. He published reports of cases, criticising the conduct of the surgeons in charge of them with unsparing freedom. One case which made a great sensation at the time was that of an operation for stone in which the surgeon (Bransby Cooper) was said to have bungled badly, with the result that the patient was put to much needless suffering, and died in consequence of the unskilful treatment which he had received. The operator brought an action for libel, asking for £2,000 damages. He was awarded £100, and Wakley's costs were paid by public subscription. Thus the battle ended in a Pyrrhic victory for the surgeon and a real triumph for the journalist.

Wakley was equally outspoken in his denunciation of the abuses of the College of Surgeons, which he called a "constitutionally rotten concern," and to his strenuous efforts the considerable reforms which were made in that institution at a later period were largely due.

As Wakley felt his strength increase he longed for a larger sphere of action. His thoughts naturally turned towards Parliament, and after two unsuccessful contests he was returned for Finsbury in 1835. Of his political career only a word or two can be said here. He was a Radical and a Reformer, "insisting largely on the rights of the people and especially anxious that the people should have, as far as possible, equal chances with the governing classes of getting wholesome food, healthy houses, and adequate education." But while doing his duty to his constituents, he never forgot that he was, in a special sense, the "Member for Medicine." He was the moving power in the appointment of the Parliamentary Committee of Inquiry into the State of the Medical Profession which led to the reform of the Corporations and to the removal of other abuses. He was the author of a measure providing for the payment to medical witnesses at coroners' inquests of one guinea for their evidence and one guinea for *post-mortem* examinations. His chief parliamentary work, however, was the introduction (in 1846) of a Bill for the Registration of Qualified Medical Practitioners, and for amending the law relating to the Practice of Medicine in Great Britain and Ireland, which did not become law, but which was the embryo of the Medical Act of 1858. Wakley's parliamentary career came to an end in 1852. As a speaker he attempted no flights of eloquence, but uttered what was in him in simple words and in a plain style none the less telling because it was absolutely unaffected. It was obvious to his hearers that he was a man who spoke when he had something to say, and who thought more of the matter than of the manner of his speech. Hence he had great weight with the House, where he was respected by men of all parties.

Perhaps it is as Coroner for Middlesex that Wakley is now best remembered. Almost from the beginning of his career as a journalist he had insisted that the office of coroner should be held by a medical man. He lost no opportunity of holding up to the public scorn the foolish verdicts given by juries directed by attorneys incapable of forming a judgment as to causes of death. His persistent agitation was successful, and in 1839 he himself became Coroner of West Middlesex. He at once set about reforming the whole procedure of the "crowner's quest." "Every death the reason of which was not apparent upon the face of its circumstances was made the subject of an inquiry; and in every inquiry where the facts demanded medical elucidation, or where the Court required medical advice, a qualified practitioner was summoned, and if necessary a *post-mortem* examination was made.................. He insisted upon a sober jury as well as a respectable one and he was no less determined to have orderly proceedings. Counsel, solicitors and witnesses—ordinary and expert, medical and lay—were made to understand that contempt of court was as serious a crime before a coroner as before a judge or even a Chancellor."

It is needless to say his reforms were not acceptable to all; they brought him into conflict with magistrates and other authorities; but here, also, the resolute earnestness and sterling honesty of the man brought him victoriously out of all his difficulties.

Meanwhile the *Lancet* was growing in influence. In it Wakley steadily championed the cause of the medical profession and of the people, exposing quacks and adulterators, the defects of the Poor-law administration, and denouncing the ill-treatment of the sick poor in workhouses.

His power of work was extraordinary. Of his labours when he was at once Member of Parliament, Coroner, and Editor, an idea may be obtained from Dr. Sprigge's account of a typical day at this period:

> The following is a programme of the day's work during these twelve years. It does not describe the routine of an extraordinary day, but of

every day throughout the period. At 8 in the morning Wakley would arrive at the *Lancet* office, breakfast, and go through his letters. Soon after the parish clerks and coroners' officers would arrive, and the list of inquests for the day would be made out. Then the editorial work for the day was arranged, concerning which Wakley was most precise in his directions, allotting it with every precaution to secure the most useful material and the most trustworthy results for his readers. By 9 his carriage, with fast trotters always especially selected for their severe work, would come to the door, and he would start on his round of inquests. He rarely returned before 6, and usually took his luncheon in his carriage, where he had elaborate arrangements both for feeding and writing, recesses containing the necessaries for a picnic, and a flap writing table, that could be let down from the front of the brougham over his knees. On completing his round he would, if necessary, attend any Committee of the House to which he belonged, arriving back at the office by six o'clock. He would then sleep for an hour or so. On waking he would put in order what he had written while driving from one court to another, would look through the "copy" which had been sent in by the staff during the day, and finally interview his printer. Then he would go to the Reform Club or to Bedford Square for dinner, and thence to the House of Commons. On returning from the House, possibly at a late hour, he would finish dealing with the voluminous correspondence of the day, answering such communications as must necessarily be replied to under his own hand, regardless of the flight of time, and making notes concerning their answers to be dictated in the morning. And so to bed, having during his fifteen or sixteen hours driven sixty or seventy miles, held a dozen inquiries, under all sorts of uncomfortable and depressing surroundings, into the causes of various terrible tragedies, having had but one comfortable meal, having sat on, perhaps, more than one Parliamentary Committee, and having certainly voted and probably spoken upon all measures where he considered his speech or his vote due to his constituents, or to the causes whose advocacy he had espoused. And this routine of physical work, enough in itself to ensure breakdown if persisted in, Wakley conducted with an enthusiasm that reduplicated the necessary wear and tear. All his overwork must be done with zeal and enthusiasm as though he were determined to wear out his heart and nerves as much as his muscles. And this continued for twelve years.

Wakley was a man of robust physique, but the sword wore out the scabbard, and he died of chronic phthisis on May 11th, 1862.

To Wakley, Napoleon, had he known him, might have said what he said to Goethe: "*Vous êtes un homme!*" He was a typical John Bull; strong, and exulting in his strength; a fierce fighter, but a lover of fair play. If he was often rough and even coarse, and used the bludgeon rather than the rapier, it must be remembered that he had work to do which could hardly have been done by gentler means. Revolutions are not made by the sprinkling of rosewater, and your reforming lion would be ineffective if he roared you an 'twere any nightingale.

What he did for the profession cannot be summed up better than in the words of Sir John Erichsen: "The present generation know little of him, and are for the most part ignorant how much they owe to him for exposing and fearlessly attacking the manifold abuses that existed in every department of the profession, in the colleges, hospitals, and medical schools in the first third of this century. Corruption, jobbery, nepotism, promotion by purchase were rife in the colleges and hospitals, and medical education was at a low ebb when Wakley entered on his career as a journalist. By his outspoken and fearless denunciation of these abuses, he brought about their reform, and so cleared the road to fame and fortune for those members of the profession who had to rely solely on their own ability and power of work. It was, in fact, Mr. Wakley who made a William Jenner or an Andrew Clark possible."

We are indebted to the present Editors of the *Lancet*, Mr. Thomas H. Wakley, F.R.C.S., and Mr. Thomas Wakley, jun., L.R.C.P., for permission to reproduce the accompanying portrait of the founder of the *Lancet*. It is from an oil painting which came recently into the possession of Mr. Thomas H. Wakley. The painting has never been completed, but the face is finished, and is declared to be an excellent likeness. It has not been reproduced before.

THE MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, LONDON.

THE first general meeting of the Governors of the Medical Graduates' College and Polyclinic was held at the College, 22, Chenies Street, Gower Street, on January 26th. The chair was taken by Sir **WILLIAM BROADBENT**, Bart., and the meeting was very numerously attended.

The **CHAIRMAN** said that all present were familiar with the objects of the Medical Graduates' College and Polyclinic. Medical men were to the last day of their lives learners. Most of them after graduating, after their several appointments in hospitals and elsewhere, and after entering upon practice, were anxious to supplement the knowledge which they obtained as students, and to carry further their efficiency as medical men. This had been shown by the number who had attended the post-graduate courses that had been held up to the present, but these courses were not adequately organised, there was no system, there was much inconvenience in going from hospital to hospital, and the object of the Medical Graduates' College and Polyclinic was to organise post-graduate work. What had been done up to the present had been to purchase the commodious premises, which was due to the enterprise of Mr. Hutchinson. At a previous meeting a provisional committee for organising purposes was appointed, and they had endeavoured to systematise the objects of the Association, to decide what its mode of operation should be, and they were there mainly to constitute the Society and set it going. The work of the Society would be of two kinds—there would be clinical demonstrations by surgeons and physicians on obscure and interesting cases brought for the purpose. Besides that there would be classes for technical instruction, practically of every kind, such as the use of the ophthalmoscope and laryngoscope. They had to congratulate themselves that they had found for their work such a man as Dr. Hawthorne as Medical Director at the moderate remuneration they could afford at present.

The meeting then proceeded to the election of the following officers:—*President:* Sir Wm. H. Broadbent, Bart. *Vice-Presidents:* Professor Clifford Allbutt, Mr. Thomas Bryant, Professor Burdon Sanderson, Mr. Jonathan Hutchinson, Dr. Hughlings Jackson, and Surgeon-Colonel Kenneth MacLeod. *Treasurer:* Dr. William Miller Ord. *Honorary Secretary:* Dr. Fletcher Little.

Mr. **BIDWELL**, seconded by Dr. **SNAPE**, suggested that the West London Hospital should be represented on the Council; and Dr. **JOLL**, seconded by Dr. **SWABY SMITH**, put forward the claims of the general practitioner for seats at the Council. The matter was settled by the unanimous election of the Council of sixteen as suggested by the organising Committee, with power to elect four more members in obedience to the suggestions made. The following is a list of the Council: Mr. J. Berry, Dr. Leamon Bowles, Mr. J. Cantlie, Professor Crookshank, Dr. Galabin, Dr. Goodhart, Dr. Hillier, Dr. Holman, Dr. Stephen Mackenzie, Mr. Malcolm Morris, Dr. Oliver, Mr. Herbert Page, Dr. Guthrie Rankin, Dr. J. Taylor, Dr. StClair Thomson, and Dr. C. T. Williams.

On the suggestion of Mr. **NOBLE SMITH**, the future manner of election of the Council was modified, in so far that two of the vacancies to the Council were to be filled up by the members of the Society independent of any nomination by the Council.

Dr. **SOLOMON SMITH** moved that any notice for a general meeting called by twenty governors should specify the object of that meeting, and this was accepted.

Replying to inquiries as to who had the right to send patients to the Polyclinic, Dr. **LITTLE**, the Honorary Secretary, said that any medical man could send patients, but that no patient would be admitted unaccompanied by the certificate of a medical man.

Mr. **NOBLE SMITH**, upon this, remarked that there did not seem safeguards enough against possible abuse by fairly well-to-do people contriving to secure a cheap opinion through pleading poverty that was not extreme.

Dr. **BURLEIGH ROBINSON** detailed the plan followed at Mr. Hutchinson's clinic.

Dr. **LITTLE** explained that a patient would be simply seen, examined, and demonstrated, but the diagnosis and scheme of treatment would be supplied only to the medical man.

The point was raised by one of the governors as to whether the emphasis laid upon "medical man" indicated exclusion of medical women, and it was explained to the meeting that, because of the objection that the very humblest of working men had to being stripped before mixed classes of men and women, it was decided to avoid such a contingency.

Dr. **LITTLE** expressed his individual opinion that there should be special classes for ladies.

After the transaction of formal business, the meeting ended with a vote of thanks to the Chairman.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

The ordinary quarterly Comitia was held on Thursday, January 26th, Sir Samuel Wilks, Bart., M.D., F.R.S., President, in the chair.

The Membership of the College was granted to Henry John Davis, M.A., M.B.Camb., L.R.C.P.; Francis Edward Freemantle, M.A., M.B.Oxon., L.R.C.P.; Thomas Jeeves Horder, M.B., B.Sc.Lond., L.R.C.P.; Laurence Christopher Panting, B.A. M.B.Oxon.; Sidney Herbert Perry, M.B.Lond., L.R.C.P.; Reginald Pratt, M.D.Lond.; George Edward Rennie, B.A.Syd., M.D.Lond.

The President, in sympathetic terms, referred to the death of Dr. Munk, the historian of the College, and for forty years its librarian. Dr. Cheadle (the senior Censor) proposed, and Dr. W. M. Ord seconded, a vote of condolence to the family of the late Dr. Munk. This was carried.

The President announced that the Swiney Prize in Jurisprudence had been awarded to Dr. J. Dixon Mann, Professor of Forensic Medicine and Toxicology, Owens College, Manchester, a Fellow of the College, for his book on *Forensic Medicine and Toxicology*.

The President drew attention to a photograph of Dr. John Chambre, the first of the six physicians mentioned in the letters patent of Henry VIII, for the foundation of the Royal College of Physicians of London. This photograph was from a portrait by Holbein, now in a picture gallery in Vienna, and had been obtained through the kind offices of Mr. Dodson of the British Museum, to whom the thanks of the College were awarded.

The President also presented for inspection of the Fellows the medal for the Bisset-Hawkins Memorial. This medal will be awarded triennially for work done in advancing sanitary science; the first award will be made in July, 1899.

The licence of the College was granted to 122 gentlemen.

A letter was read from Sir Herman Weber, M.D., commemorating by a gift of £100 to the College the renewal of his diploma after fifty years by the University of Bonn. A hearty vote of thanks to the donor was recorded.

Letters were read from two Members resigning their Membership.

A communication was received from the President of the General Medical Council with reference to two clauses which the Council proposed should be added to the Medical Act. The first clause was to the effect that the name of any practitioner could be removed from the *Register* for any crime, felony, or infamous professional conduct for a term of years, and not as heretofore for an indefinite period; the second clause would enact that during this period he should be deemed to be deprived of his degrees or diplomas, and that if he assumed them he should be subject to the penalty provided by Clause 40 of the Medical Act, 1858. It was decided that the College would not oppose the first clause; but having taken counsel's opinion to the effect that the second clause would infringe its rights, it would feel obliged to oppose this clause, unless it was limited to those bodies which had not the power of withdrawing their diplomas.

A communication from the Chairman of the Educational Committee of the General Medical Council with reference to the desirability of raising the standard of the preliminary education of medical students, was referred to the Committee of Management.

Drs. Thorowgood, Bradbury, Sir John Williams, and Dr. S. Mackenzie were elected Councillors. Dr. Norman Moore was elected a member of the Library Committee. Professor T. Clifford Allbutt, was elected an Examiner in Medicine. Dr. J. F. Payne was elected Librarian.

A report of the Committee of Management of the Conjoint Examining Board was received, recommending that the alteration recently made in the regulations relating to the commencement of dissection after the student had received his instruction in Chemistry, Physics, Practical Chemistry, and Biology should be annulled, and that the clause should remain the same as it was before the alteration.

Dr. J. W. Washbourn moved that this report should be referred back to the Committee of Management. This was seconded by Dr. Starling, and supported by Drs. L. E. Shaw and H. J. Campbell. Drs. Norman Moore, Isambard Owen, and Calvert spoke in favour of the adoption of the report. The report was adopted after a division.

The revised report of the Leprosy Committee was adopted as follows:

> Your Committee beg leave to report as follows:
>
> That the communicability of leprosy, by direct or indirect means, from lepers to the healthy must now be accepted as an established fact, the evidence in support of this belief being conclusive, and that there is no evidence of the disease arising or spreading in any other way.
>
> Your Committee are therefore of opinion that the conclusions stated in a resolution unanimously adopted by the International Conference on Leprosy held at Berlin in October, 1897, and set forth at page 194 of the Official Report of the Conference, ought to be accepted in their entirety, and acted upon where leprosy is endemic, or occurs under the conditions indicated in the first paragraph of the resolution, which is as follows:
>
> "[*Translation.*]
>
> "1. In all countries in which leprosy occurs in foci, or is widely distributed, isolation is the best means of preventing the spread of the disease.
>
> "2. The system of compulsory notification, supervision, and isolation, as carried out in Norway, should be recommended to all nations possessing local self-government and an adequate number of physicians.
>
> "3. It must be left to the legally-constituted authorities, after consultation with the sanitary authorities, to determine the special regulations, which must be adapted to the special social conditions of each country."
>
> But your Committee would dwell with especial emphasis upon the last paragraph of that resolution, recommending careful consideration of the social and political conditions of each particular country.

The report of the representative of the College on the General Medical Council; the annual financial statement of the Conjoint Finance Committee for 1898; the quarterly report of the Finance Committee; the report of the Laboratories Committee; and the annual return by the examiners of the results of the examinations for 1898 were severally received and adopted. Votes of thanks were awarded to the donors of books and others publications to the library during the past quarter.

THE PREVENTION OF TUBERCULOSIS.

The Government and the Stockkeepers.

Mr. Walter Long, M.P., President of the Board of Agriculture, speaking on agricultural legislation at a dinner of the Newcastle Farmers' Club on January 28th, said he had been asked to deal with the difficult subject of tuberculosis, but he would ask everybody who was interested in the solution of this question, which applied not only to the health of animals but also to the health of human beings, to consider whether the Government was not right in believing the data were still too indefinite and wanting in preciseness to justify them in asking Parliament for great votes of public money, or to impose upon stockkeepers compulsory measures entailing great loss. They were not yet sure that these measures would be effectual. They wanted to know more than they knew at the present time. It had already been discovered that the tuberculin test might be so administered as to render it incapable of reaction on a second application; and that, therefore, it might be productive of fraud. Besides the people who had studied the question most closely were not agreed as to the conditions under which the test should be applied. The disease was difficult of detection unless they could rely on some such discovery as the tuberculin test. At present too little was known and too much was doubted for Parliament to be justified in imposing upon the country heavy expenditure or wholesale restriction which would be strongly resisted in many quarters, and which might not do anything effectual for the extinction of disease. It was for these reasons that he was not at present prepared to make proposals on the subject to the country or to Parliament.

Tuberculosis in Cattle.

At the Society of Arts a paper was read by Mr. W. Hunting on January 25th. Mr. R. Brudenell Carter occupied the chair. Mr. Hunting pointed out that the annual loss of life from tuberculosis alone was 70,000 persons and 40,000 cattle; and that, while during the last half century there had been a great reduction in the death-rate from many forms of tuberculosis in man, the mortality of children under 1 year old from abdominal tuberculosis had increased—the increase going hand in hand with the increased consumption of cow's milk. There was reason to believe that at least 20 per cent. of the cattle over 2 years old were more or less affected, and that at the present time an enormous stream of infectious milk was pouring into our cities.

Purely voluntary action was insufficient to cope with the danger, and legislation was necessary. The recommendations of the Royal Commission and of the departmental and other committees which had considered this question showed the lines on which effective regulations could be drawn. The important points were: Tuberculosis to be scheduled in the Animals Diseases Act; compulsory notification of udder disease to be enforced; inspection of meat, milk, and cowsheds; regulation of the movement of diseased animals; slaughter of visibly diseased animals, with compensation to the owner; seizure of diseased animals in markets or during transit; power to the authorities to use the tuberculin test in doubtful cases; and offer of the test gratuitously to all stockowners. What would be the cost of such a scheme? Assuming the number of dangerously affected cattle to be 40,000, and that compensation at the rate of £2 per head were paid for all cattle of a value of £8 and less compulsorily slaughtered, and at the rate of one-fourth the market value of all others seized (no animal being valued at over £24), the total cost in the first year would be about £100,000, and would afterwards be a constantly decreasing sum until the disease disappeared. This was less than was now paid every year for the attempts to stamp out swine fever. The protection of human life would be most effectively undertaken by measures which applied to all animals, and not only to those which were in the hands of butchers and cowkeepers.

The Chairman said mere figures were apt to slide off the mind, but a simple supposition would bring home the startling fact that there were 70,000 preventable deaths in this country every year. There were many flourishing market towns in England with a population ranging from 6,000 to 10,000 each; and the mortality from tuberculosis produced as great a loss as if the entire population of some nine or ten of these towns was wiped out each year. Our rulers would do nothing until they were prodded into action by public opinion; and the sooner such a public opinion was formed on the best data the better it would be for the efforts to cope with this evil. The question of compensation was one which the nation would have to face, though it was possible to maintain more than one view with regard to it. He had heard of a district in India where a premium was offered for every poisonous snake brought in, with the result that one man had made a handsome income by establishing a snake farm and breeding snakes for himself. There was some fear that, under a liberal system of compensation, persons might find it worth while to buy up tuberculous cattle.

A discussion followed, and, in replying to the various points raised, Mr. Hunting said that there would be no danger of compensation leading to the abuse suggested by the Chairman. The person who speculated in tuberculous cattle would be more likely to incur prosecution than to make a profit.

EDINBURGH: REPORT BY SIR HENRY LITTLEJOHN.

In connection with the duties of the City Corporation towards the question of the prevention of consumption, and in particular with reference to the proposed inclusion of consumption as a disease to be notified, Professor Sir Henry Littlejohn was asked to prepare a report on the subject, and that he has now issued to the members of the Public Health Subcommittee.

In Edinburgh the mortality from pulmonary consumption has been decreasing, because of the great clearances that have been effected in the older parts of the city during the last thirty years, the improved drainage, the better feeding of the working and poorer classes, the efforts of the Corporation to provide outdoor recreation for the working classes, the public baths and washhouses. During the decade from 1878 to 1887 the total deaths were 44,616, and of these 4,968 were due to phthisis, and 5,027 to zymotic diseases. In other words, in a death-rate of 19 per 1,000, 2.1 were due to phthisis. During the decade from 1888 to 1897 the total deaths were 48,274, and of these 4,956 were due to phthisis, and 4,792 to zymotic diseases. In other words, in a death-rate of 18 per 1,000, 1.8 were due to phthisis.

Further, to lessen the ravages of this great scourge in Edinburgh, Sir Henry suggests:

1. The continued improvement of all insanitary areas.
2. The common stairs, the avenues of fresh air into the subdivided dwellings of our tenements, should be more regularly cleansed.
3. Owing to the scarcity of water, the dust in our closes and streets is not sufficiently dealt with. Twice a day the closes should be flushed, and the streets should be more frequently watered. The very poorest class has not had its wants attended to.
4. Handbills should be distributed calling attention to the risk of allowing the expectoration of patients to fall on the floor, or on any surface where it dries and passes into the air in the form of fine dust. A form of handbill such as the following might be used:

PULMONARY CONSUMPTION.

The Health Committee of the Town Council beg to impress on citizens the importance of never allowing expectoration to fall on the floor of any part of the house. This is specially to be guarded against in the case of pulmonary consumption, which is now regarded by the medical profession as highly infectious when the expectoration of the patient is allowed to dry on any surface, and to be carried in the form of dust into the air. By breathing this air the disease is readily communicated.

It is also known that light and fresh air tend to destroy this infective material. Hence the importance of attending to what is in every person's power, namely, securing, as far as possible, the entrance of light and fresh air into the apartment of the sick.

Domestic cleanliness is of prime importance, and patients should be provided with spittoons containing some disinfectant such as a solution of crude carbolic acid. These should be cleansed from time to time, and where pieces of rag or paper are used these should at once be destroyed by burning.

The Health Committee have given instructions that citizens, on applying at the Health Office, should have the bedding, etc., used by consumptive patients disinfected free of charge, and in the event of removal or death that the room should also be disinfected.

In families with young children it is recommended that, wherever practicable, the milk should be boiled over-night.

5. It was possible to eradicate tuberculosis from cowhouses and herds at an enormous expense for compensation by killing every animal which shows the slightest signs of the disease.

Taking the deaths as a whole, the mortality per 1,000 of the population under 15 years of age is 0.54; from 15 to 25 it is 1.63; from 25 to 45 it reaches the maximum of 2.74; and after 45 it is 2.52. The mortality per 1,000 of the whole population is 1.75—a figure low and favourable in comparison with the corresponding death-rate of other large towns in the country. As to sex, the disease causes a larger mortality among males than females, probably due to a greater incidence of the disease among the former, and in other conditions than the house surroundings and dwellings.

RENTAL.

Deaths from phthisis occurring in the period from January 1st to September 30th, 1898, shown according to rentals:

Under £5	24
£5 and under £10	125
£10 and under £15	97
£15 and under £20	70
£20 and under £30	39
£30 and under £40	7
£40 and under £50	7
£50 and upwards	11
	380

NOTE.—Seventeen deaths of persons who died in public institutions or common lodging houses are not included in the above.

In the above table we are enabled to obtain a proximate idea of the social status of those who have succumbed to the disease, and to some extent also of the sanitary surroundings of the affected households. While it may not be wise to draw a rigid conclusion that lower rental necessarily means defective sanitary surroundings and more unhealthy conditions of life than in higher rented property, yet a consideration of the above table irresistibly suggests the proposition; and we know that the classes who inhabit the lowest rented property in a city live, for the most part, under conditions of poverty, deficient nourishment, intemperance, and neglect of cleanliness, which, in addition to the sanitary state of their houses and surroundings, must exercise great influence upon their ability to withstand disease.

OCCUPATIONS.

The following occupations stand out prominently:

Masons	20 deaths.
Clerks	15 deaths.
Printers	14 deaths.
Brewers' labourers	7 deaths.
General labourers	7 deaths.

Among the dependents, which include wives and children, no class has a higher number of deaths than the general labourer, 22.

This disparity can only be accounted for by the open-air life of the head of the family, while from his careless habits and uncertain wages the children are too apt to suffer from scarcity of food and deficient house accommodation.

THE POSSIBILITY OF MUNICIPAL ACTS.

Sir Henry Littlejohn points out that if a young man become affected, the symptoms at first are often undecided, and after attendance as an out-patient at the infirmary or dispensaries, he finds that his strength is so impaired that he can no longer work at his trade. Meanwhile, his pecuniary resources have been dried up, and if he has a wife and family to support, the depression of mind thus caused tends to aggravate the disease. If friends assist him, he remains a confirmed invalid in his house, and spreads the infection on all sides. To propose to such a one removal to the parochial hospital is generally indignantly rejected; and no wonder, when we remember that he must leave his wife and children, who, if they do not accompany him to the poorhouse, have to undergo the pinch of poverty, and, exposed as they have been to the direct infection of consumption, are very liable to suffer from the disease. If, on the other hand, the family should follow the father to the poorhouse, it must be remembered the wife and children are at once separated from each other, and the very thought of this acts injuriously on the patient. The only resource for such a patient is to take advantage of the many charities in the city.

NOTIFICATION.

While (he proceeds) I have shown the various agencies that may be put in operation by the Corporation to meet the present demand on the part of the community and the medical profession to lessen the risks of phthisis in our midst, I have hesitated to insist on notification. The only advantage that might be claimed in its favour—were it adopted, say, for a limited period—is that it would give the Corporation more exact information as to the extent of the scourge and the actual number who are affected. The tabular results of such an inquiry would also enable the Corporation to carry out those precautionary measures more thoroughly which have already been alluded to. I cannot however conceal the fact that, should notification be determined upon, it will prove to be expensive, for not only will the medical profession have to be paid for intimation, but, as there must be some guarantee as to the nature of the cases, each notification must be accompanied by a certificate that the case has shown the presence of the bacillus of consumption. To enable the medical profession to furnish such evidence the Corporation will require to subsidise the bacteriological laboratory of the Royal College of Physicians, so that every medical practitioner in the city may, free of cost, obtain such a bacteriological certificate as will justify the Corporation in granting the usual fee of 2s. 6d.

The number of phthisical patients in Edinburgh cannot be estimated at fewer than 5,000, and this entails an expense for notification of nearly £700, and, with a subsidy of £200 to the College of Physicians, together with contingencies, the total sum will amount to £1,000.

This question of notification is one for the Health Committee, in the first instance, to decide, or whether the Corporation should go on as they have been doing, improving the sanitary condition of the city, paying greater attention to cleansing—especially in the poorer districts—doing their best to put down the inordinate habit of expectoration, and lastly, by means of leaflets giving such information to the citizens as should educate them in the hygienic treatment of this disease.

In conclusion, I need hardly remind the Corporation of the importance attaching, so far as consumption is concerned, to the regulation of our slaughterhouses, and to the inspection of our dairies and milk supply. Edinburgh, with regard to these important points, has always stood in the van of great communities, and I trust that nothing will be done to impair in any way the stringency of the measures adopted by the Corporation in all these departments. There can be little doubt that in a few years science will provide infallible tests whereby tuberculosis will be at once detected. Meanwhile, until Government provides (1) tuberculin or other test of standard purity and in sufficient quantity, (2) extends its compulsory use over the whole kingdom, and (3) introduces and passes a Bill providing for satisfactory compensation, I cannot advise the general use of this means of diagnosis in our city byres.

EDINBURGH: PROPOSED CONFERENCE.

On January 27th a Subcommittee of the Public Health Committee of the Edinburgh Town Council on the Treatment of Consumption agreed to confer with the Councils of the Royal College of Physicians, and the Royal College of Surgeons on the subject of precautionary measures to be taken in regard to consumption. It was decided also to ask the principals of the veterinary colleges to be present. The Committee further resolved that there should be public notification of phthisis in the city, and the recommendation was made that a circular should be issued containing suggestions and indicating precautions in cases of phthisis. This circular is intended to be issued to the ratepayers to explain that consumption is a preventable disease, and can be cured at certain stages.

SOUTH LONDON.

At an adjourned meeting of the St. Saviour's Board of Guardians held on January 26th, Mr. Redman moved:

> That, having regard to the large number of cases of tuberculous disease which find their way into establishments under the care of the Poor-law guardians, and the danger of infection incurred by non-tuberculous patients, it is desirable that some centrally-managed institution should be established to which all cases of tuberculous disease should be removed.

He mentioned that out of the 777 patients in the St. Saviour's Union Infirmary, no fewer than 131 were suffering from this disease. Mr. Rackham seconded the motion, which was carried *nem. con.*

Mr. Redman then moved:

> That, with the object of eliciting the views of the various Boards of Guardians upon the subject and of providing for concerted action, a conference be convened by the St. Saviour's Board of Guardians, to which each metropolitan Board be invited to send delegates.

This motion was also agreed to, and the Board adjourned.

NOTTINGHAM.

At a meeting on January 4th, Mr. T. Davies Pryce (President) in the chair, a discussion on the treatment of phthisis curative and preventive was opened by Dr. Lowe (Lincoln), Dr. W. B. Ransom, and Dr. P. Boobbyer, and was continued at an adjourned meeting on January 25th.

Dr. Lowe thought that medical treatment must be both prophylactic and general. The apparently spontaneous arrest of tuberculosis in some instances had led to much empirical treatment. At different times transfusion of blood, cod-liver oil, and more recently antiseptic inhalations (of which he considered oil of cinnamon the best) had been favoured. Strychnine had proved the most useful drug for general treatment.

Dr. W. B. Ransom dwelt upon the relation of phthisis to air, showing by examples that the disease had no connection with climate, or with heat or cold, but that it was rare where the population was scanty, and where the conditions of life were pure and healthy. Phthisis was in man an essentially curable disease, but the healing powers of Nature must be relied upon, rather than the efficacy of drugs. He quoted the letters of Boddington in the *Lancet*, 1840, as to the value of fresh air. The disadvantages of sending patients for sea voyages, to the Riviera, or high altitudes were described, the only beneficial conditions common to them all being pure air and outdoor life.

Dr. Boobbyer discussed the responsibilities of local authorities in relation to tuberculosis. He thus summarised their functions: To discover if there were any local conditions likely to foster the spread of tubercle, to improve the dwellings of the poor, and of workshops not under the supervision of the central government, to give some instruction to people respecting the conditions known to favour the spread of this, as of all other infectious diseases, to disinfect houses and goods which had been exposed to the infection of tubercle, to prevent the use as human food of the milk and flesh of tuberculous animals.

Dr. Handford remarked that in the execution of preventive measures we were in the hands of the public, but the chief hope lay in their education as to the nature and causes of phthisis. He emphasised the extreme infectiousness of tuberculous milk, the risk from using tuberculous cream and raw meat juice.

The President said the best method of giving effect to our knowledge was by the enlightenment of the public through the diffusion of information in regard to the disease rather than by legislative interference.

Dr. C. Bell Taylor quoted the opinions of physicians of the past century as to the contagion of phthisis, and recited instances of the fluctuating character of mere medical opinion so that no safe legislation could be founded upon it. He thought it would be a difficult matter to persuade insurance companies that heredity played no part in the production of the disease, and condemned anything approaching compulsory notification.

After some observations from Dr. Watson, Dr. Mackenzie, Miss Gray, Dr. Cattle, Dr. Blurton, and Mr. Kingdon, Dr. Lowe replied on the whole discussion, and remarked that no one had referred to the rabbit as a possible source of infection, though tubercle was prevalent to a marked degree in rabbit warrens.

Dr. Giddings moved the following resolution:

> That in the opinion of this meeting it is advisable that the Mayor of this city should take immediate action to endeavour to create a local branch of the National Association for the Prevention of Consumption.

After some discussion, the motion was unanimously negatived as being inadvisable.

CONGRESS OF POLISH SCIENTISTS AND MEDICAL PRACTITIONERS.—The Congress of Polish Scientists and Medical Practitioners, the intended meeting of which at Posen last year was forbidden for political reasons by the Prussian Government, is to be held at Cracow in 1900, at the same time, as the celebration of the five hundredth anniversary of the University of that city.

MR. BALFOUR'S IRISH UNIVERSITY SCHEME.

The scheme embodied in Mr. Arthur Balfour's letter to one of his constituents, which was published in the newspapers on January 26th, is naturally attracting a great deal of attention in Ireland. Put shortly, it is a proposal to establish two new universities in Ireland—a Northern University and a Southern University. Neither would be denominational; but Mr. Balfour anticipates that the Northern University would be dominated by the Protestants, and the Southern University by the Roman Catholics.

A Dublin Correspondent writes: One point is omitted in Mr. Balfour's letter, and that is the fate of the Royal University of Ireland. We suppose that the new universities will be erected on its ruins, just as it in 1880 rose out of the ruins of the Queen's University. Certain it is that the most ardent advocate of extension of university education in Ireland could not make a case for the maintenance of the Royal University if its functions as an examining Board and a degree-giving corporation are to be discharged by a new teaching university in Dublin, and a new teaching university in Belfast.

What chiefly concerns the medical profession in Mr. Balfour's scheme is its probable effect upon medical teaching, education, and examination in Ireland.

In the first place, one more licensing body will be added to the long list of privileged universities in the United Kingdom. I say "privileged" advisedly, because the Medical Act of 1886 left to each university the right to registration in medicine, surgery, and midwifery, while it deprived the Royal Colleges of that right, save on the condition that they formed a Conjoint Examining Board.

It is to be supposed that the establishment of a university in Belfast would check the exodus of north of Ireland medical students to Edinburgh for the Scottish "triple qualification." The equipment of a magnificent medical school in connection with the new university in Queen's College, Belfast, and the facilities for obtaining degrees in that city, would outweigh the attractions of Edinburgh. Similarly, but to a less extent, the new university in Dublin might keep Irish medical students at home, particularly such of them as were Roman Catholics.

All this would be advantageous from an Irish point of view; but the advantage would be counterbalanced by the probably disastrous effect the university scheme would have on the Royal Colleges of Physicians and Surgeons, Ireland. These bodies at present play an important part in medical education and examination. The educational position of the Royal College of Physicians would no doubt remain practically unaltered, seeing that it consists in electing four King's Professors on the foundation of Sir Patrick Dun. These Professors teach in the School of Physic in Ireland, which is the medical school of the University of Dublin.

But the Schools of Surgery of the Royal College of Surgeons in Ireland would run a risk of annihilation under Mr. Balfour's scheme. At present those schools and the Cecilia Street School of Medicine (which is the school of the Catholic University) may be regarded as extramural schools. Practically all the students attending the Schools of Surgery go for the licences of the Royal Colleges of Physicians and Surgeons. The students of the Cecilia Street School qualify in part at the Royal University, in part at the Royal Colleges.

If a Roman Catholic University is established in Dublin, the Cecilia Street School will be merged in, or will develop into, its medical school, and all the students will, as a matter of course, take degrees at the University.

The Schools of Surgery of the Royal College of Surgeons will then be terribly handicapped, for its Roman Catholic pupils will be almost certain to desert to the new University. In this way the candidates seeking the licences of the Royal Colleges will be much reduced in number—finally, perhaps, to a vanishing point.

Our Belfast Correspondent writes: The opponents of the proposal to found a new university for Roman Catholics may be grouped under three heads:

First, the Orange and ultra-Protestant party, who are by history and sentiment uncompromisingly hostile to all concessions to Roman Catholicism. This party has its interests centred chiefly in Trinity College, Dublin, and the only argument likely to weaken their hostility is the consideration that unless some concession is made to Roman Catholics at the present juncture, the safety of Trinity College will be hereafter endangered. It will be noted as significant, from this point of view, that both the members for Trinity College—Mr. Lecky and Mr. Carson—are understood to favour the proposed new Catholic University. The ultra-Protestant party take their stand on the broad issue that all tests have been abolished in Trinity College, and that all its honours and emoluments are open to Protestant and Catholic alike, that no tests have ever existed in the Queen's Colleges, whose advantages are open to everyone without regard to sect, and that if the Irish Catholics decline to embrace existing opportunities for higher education, the fault lies in their own prejudices, and they must take the consequences. This argument has the disadvantage of ignoring the very essence of the Catholic case. The Catholics complain that Trinity College is by tradition, spirit, and management essentially a Protestant institution, whatever it may appear to be on paper; and that the Queen's Colleges are purely secular institutions, and as such repugnant to a Catholic, who regards the association of religion and higher education as indispensable.

Secondly, there is a considerable party in the North of Ireland whose watchword is, "United secular: separate religious instruction." This party holds, like many of the English Nonconformists, that the State should provide secular and technical education, but should ignore all sectarian questions, leaving the churches to provide religious instruction for their adherents. The question for this party to ponder is whether it is always the part of wisdom to insist upon the application under all circumstances of what seems a righteous principle, and whether, all things considered, Irish university education does not call for exceptional treatment. According to the Bishop of Limerick, only about 100 Irish Catholic youths are at present receiving university education in Ireland. Seeing that the Irish Catholics number from 3 to 4 millions, this figure is truly deplorable and highly discreditable to the existing arrangements for higher education in the country.

Thirdly, there is a party whose sympathies are entirely political. This party says: "The Unionist Government is overwhelmingly strong at present. Why should it meddle with a thorny and difficult question like Irish university education? It has overthrown other Governments and may destroy them. They should let it alone." If there were no higher motive in public life than political expediency this argument would possess much weight.

On the other hand, there is a considerable and distinctly growing body of opinion in the North of Ireland in favour of the view that some radical change in Irish university education is absolutely inevitable, and that some concession must be made to Roman Catholic feeling on the subject. The Royal University is exceedingly unpopular in Ulster, for the simple reason that it is worked in the interests of Dublin and that its examinations do not command the confidence either of teachers or students. This is felt especially on the medical side. Belfast sends forward about one-half of the candidates for the M.B. examination, but the Belfast Medical School at present possesses only two representatives upon the Examining Board of twelve members. Appointments in the Royal University are hardly even nominally made on grounds of merit. Sectarian considerations, or the conflicting interests of the various medical schools, are allowed to exercise a predominating influence. These facts, which will not be disputed by anyone really conversant with the circumstances of the case, have led many persons in the north of Ireland to the conclusion that the best solution of existing difficulties would be the acceptance of Mr. Balfour's proposals for a new Catholic University in Dublin, and a new Northern University with its seat in Belfast.

INDIAN AND COLONIAL STUDENTS IN EDINBURGH.

An important and influential meeting was held in Edinburgh on Friday, January 27th, under the presidency of Principal Sir William Muir, to discuss the question of providing a residence or residences for the use of members of the very large body of students attending the University from the

Colonies and India. The desirability of some such provision has been pointed out alike in the interest of the students themselves, of the University, and of the educational aspects of Imperial federation.

Sir **William Muir** moved, and Professor **Prothero** seconded the first resolution, which was as follows:

> That this meeting cordially approves and warmly supports the suggestion of providing a residence or residences for the use of members of the very large body of students attending the University from the Colonies and India; also that this meeting expresses its sympathy with the work already done by the London Committee, and pledges itself to support their efforts.

Professor **Crum Brown** moved:

> That a Committee be appointed to forward the matter in conjunction with the London Committee, and to arrange for a joint meeting to be held in Edinburgh at a subsequent date.

This was seconded by Sheriff **Æneas MacKay**, and supported by Bailie **Pollard**, who suggested the countenance and sympathy of the City Corporation.

CONTRACT MEDICAL PRACTICE.

County of Durham Medical Union.

The general medical practitioners resident in the county of Durham have decided to form an association for the purpose of considering all medico-ethical questions affecting the profession in the county, and also raising the contract price of 6d. per fortnight, which is the present usual contract rate between workmen and doctors in the county, to a minimum charge of 9d. per fortnight. Dr. E. Jepson of Durham has been elected President, Dr. J. F. Armstrong of South Shields a Vice-President; a Council of 12 members has been constituted, and Messrs. Graham and Shepherd, Solicitors, Sunderland, have been appointed Secretaries and Solicitors and Treasurers *pro tem.* The subscription is 10s. 6d. per year per member.

The protection of members from unfair competition and from attempts that may be made to induce or compel medical practitioners to accept insufficient remuneration for professional services, and the establishment and maintenance of minimum rates of payment for medical contract work in relation to miners and all classes of workmen, members of friendly societies, clubs, lodges, insurance and other companies and societies, are the chief objects of the Union. The reasons adduced in favour of change were as follows:

1. The expenses of practice—for example, drugs, surgical instruments, dressings, etc., are higher than formerly.
2. Qualified assistants, as required by the new Medical Act, must be paid higher salaries than assistants were paid formerly.
3. The cost of medical education is higher now.
4. Patients get better value for their money now than formerly.
5. There is additional strain and exactions upon the medical man now, and additional responsibility under new Acts of Parliament.
6. The wages of workmen are much higher now than when the 6d. per fortnight subscription was first fixed.
7. In many districts in the county the workmen have recognised that 6d. per fortnight is inadequate, and willingly pay 9d. to their medical man.

This resolution was thoroughly discussed, and eventually unanimously carried amid applause.

It was resolved unanimously:

> That notice of the increased rate of payment should be given by the secretaries as early as possible to the managers of all works and trade societies affected thereby, and to the secretaries of the miners' unions at Durham and Newcastle, and as to the latter, requesting them to inform the secretaries of the various miners' lodges thereof, and in the event of their refusal to do so, similar notices to be sent to each colliery affected.

It was decided that the change should take place in the first pay in the month of February, 1899.

LITERARY NOTES.

Under the title of *Bailey's Index to the "Times,"* there will be issued in the present year, month by month, a complete index to the contents of the *Times* newspaper. All the references will be so arranged that under a special heading, such as Medicine, for instance, will be found a complete list of all the information relating to this subject which has been given in the *Times* during the current month. The *Index* will be the work of Miss Nancy Bailey, who for seven years has compiled the Index to the Parliamentary Debates, besides having done the same for the Government in regard to the most important Royal Commissions. The publishers, Messrs. Eyre and Spottiswoode (East Harding Street, London, E.C.) will bring out at the end of each year the twelve monthly parts rearranged, brought into alphabetical order, and bound together in one volume. The subscription to the Monthly Index alone will be 30s. per annum; subscribers of 42s. per annum will receive post free each Monthly Index and the Annual Index.

Mr. B. Stephen Foster, Barrister-at-Law, of the Inner Temple and Midland Circuit, is the author of a *Guide to the Law of Licensing so far as it Affects the Sale by Retail of Intoxicating Liquors in England and Wales*, which is published by Messrs. Waterlow and Sons, and may be purchased by whoever wishes to be enlightened on the important subject with which it deals, for what Mr. Montague Tigg would have called the "ridiculously small sum" of half a sovereign. A captious person might perhaps ask, What have medical men to do with the "law of licensing?" To which it may be replied that, however little they may "at first thinking," as Swift says, imagine themselves to be interested in that particular legislative achievement, it really concerns them a good deal. Let us consider the matter by logical analysis: *Primo*, all doctors are interested in the sale of intoxicating liquors, because they derive a considerable proportion of their revenue from that form of commercial enterprise; *secundo*, a good many are themselves "moderate drinkers," and are therefore, whether as *bonâ fide* travellers or stay-at-home consumers, more or less directly interested in the matter; *tertio*, some are teetotallers, and as such necessarily interested in the greater or lesser facilities which the law offers their weaker brethren for procuring the "poison;" *quarto et præcipue*, not a few doctors are magistrates, and therefore are expected to know something of a law the administration of which forms an important part of their duties. Fifthly and lastly, Mr. Stephen Foster's book has an interest for medical men, inasmuch as he is the son of Sir Walter Foster, M.P. Of the book itself we can only say that, although to the non-legal mind it has a formidable appearance, bristling with Acts of Parliament, Statutes, Forms, and similar technical matters, it will be found a helpful and trustworthy guide to the law of licensing in all its bearings. The arrangement is original and tends to clearness, and the work may be recommended to medical magistrates and to all who have anything to do with the administration of the law relative to the sale of intoxicating liquors.

The February *Blackwood* is a double number in honour of its being the thousandth issue of that lively periodical. To us the most interesting item in the varied and attractive bill of fare provided is "The Looker-on's" commentary on Mr. Lecky's remarks on Mr. Gladstone's eye, which has given such offence to the admirers of that remarkable man. Mr. Lecky says he was told by Boehm, the sculptor, that he had seen a Scotch professor paralysed or fascinated by the glance of the "Grand Old Man," whose eye on the occasion was observed by Boehm to be "visibly dilating, and the eyelid round the whole circle of the eye drawing back, as may be seen in a bird of prey." The "Looker-on" confirms this on the authority of Boehm himself, who told him how "the outer lids of (Mr. Gladstone's) eyes widened in the fulness of their steady glare." Then, as the Scotch professor showed fight, "the *inner* lids were opened," whereupon the professor was so cowed that he could not speak. From which it would appear that we are asked to believe that Nature, which was so bountiful to Mr. Gladstone in other respects had also supplied him with a *membrana nictitans!* Truly one hardly knows whether Mr. Gladstone was more to be pitied for the admiration or for the hatred which he excited. The brain of this foolish-compounded clay, man, never invented anything more foolish than the stuff that is uttered about him by perfervid friends and simple-witted foes.

Professor Arthur Thomson of Oxford will contribute to *Knowledge* a series of papers dealing with the treatment and uses of anthropological data. The first is to appear in the February number of our contemporary.

The Ascent of the Nurse.—It is announced that in the coming summer a congress of male and female private nurses is to be held at Weimar.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1899.

SUBSCRIPTIONS to the Association for 1899 became due on January 1st, 1899. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, FEBRUARY 4TH, 1899.

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ANOTHER BILL TO AMEND THE MEDICAL ACTS.

THE General Medical Council has drafted for the consideration of the Privy Council, a very short Bill, consisting, in fact, of but two clauses. This Bill has been submitted by the General Medical Council to the governing bodies of the various licensing authorities for their observations. Under the first clause the Council would be empowered to erase the name of a practitioner from the *Register* for a limited period, instead of as at present for an indefinite period. Under the second clause, the practitioner whose name was erased, whether permanently or temporarily, would be deemed deprived of any diploma or degree entitling him to practise, and would render himself liable to prosecution under the provisions of the Medical Act, 1858, if during the period of erasure he used any title of which he was by this section deemed to be deprived.

The text of the clauses is, we are informed, as follows:

1. Where a registered medical practitioner has been convicted in England or Ireland of any felony, misdemeanour, or in Scotland of any crime or offence, or has after due inquiry been judged by the General Medical Council to have been guilty of infamous conduct in a professional respect, the General Medical Council may if they see fit by order to be made either at the inquiry or at any subsequent time direct that the name of such medical practitioner shall be and remain erased from the *Medical Register* for a limited period to be specified in the order, and may from time to time by subsequent order or orders vary such period, and at the expiration of the period specified in any such order or subsequent order the Registrar shall, unless otherwise ordered by the General Medical Council, restore the name of the practitioner to the *Medical Register*.
2. Where the name of a registered medical practitioner has been erased from the *Medical Register* by order of the General Medical Council for any of the causes specified in Section XXIX of the Medical Act, 1858, such practitioner shall, for as long as his name remains erased from the *Medical Register*, be deemed to be deprived of every diploma or degree conferring a qualification to practise medicine, surgery, or midwifery possessed by him. Any practitioner who in contravention of this section shall use the name, title, or description of any diploma or degree of which he is by this section deemed to be deprived, shall be guilty of an offence under Section XL of the Medical Acts, 1858, and all provisions of the said Act in relation to offences under the said section shall apply accordingly.

We understand that, subject to the approval of the various medical authorities, this Bill will receive the support of the Government, and it therefore becomes incumbent upon those who have the interests of the medical profession at heart to scrutinise its provisions very closely.

The first question which anyone conversant with the Medical Acts and the procedures of the General Medical Council will natural ask is, What is the practical benefit of these clauses? Has not the Council already the power to erase names from the *Register* temporarily?

In answer to this question it must be said that there has always been considerable doubt in legal minds (1) as to the power of the Council to restore names which have been erased; (2) as to its power to do so without re-examination; and it is probably with the object of allaying these doubts that the clause in question has been drafted. The object of Clause 2 is to make Section XL of the Medical Act, 1858, a reality as regards practitioners whose names have been erased, and this aim, we think, ought most certainly to commend itself to the public not less than to members of the medical profession. As the law is at present commonly interpreted, so long as a man is able to retain his diploma, Section XL of the Medical Act, 1858, has little or no terrors for an offending practitioner whose name has been erased from the *Register*. He is unable, it is true, to recover his charges for attendance in any court of law, he is debarred from holding various positions, and certificates given by him are not valid; but apart from this it is probable that a medical man with a large private ready-money practice who is struck off the *Register* suffers little or nothing, and can successfully meet the charge of wilfully and falsely assuming a title. In fact, it may be said that in a certain sense he may even consider himself to be a gainer, as he escapes the supervision of the General Medical Council and is no longer subject to its jurisdiction. It is obvious that an amendment of the Medical Acts in this respect is of urgent necessity, and that in cases of erasure the offender should be prohibited from holding himself out as a qualified practitioner. The public does not consult the *Register*, and many do not even know of the existence of a *Register*.

As has been already stated, the Government before bringing in the Bill has required that the sanction of the medical authorities should be previously obtained, or at least that some assurance should be given that they would offer no opposition, and it is here that considerable difficulty threatens to arise. Reference to the report of a meeting of the Royal College of Physicians of London, which appears elsewhere, shows that the College is advised that the second of the proposed clauses will infringe its rights and that it will feel bound to oppose this clause unless it is limited to those bodies who have not the power of withdrawing their diplomas.

This amendment of the College, if insisted on, will practically kill the clause, since it is hardly probable that any of the licensing bodies will consent to such a reservation in favour of the Royal College of Physicians of London, and even if they did this section as amended would have the anomalous effect of affecting the diplomates of some licensing bodies while leaving those of others untouched.

An objection of a somewhat similar nature will probably be raised to the first clause also by those licensing bodies who have at present no power of temporary erasure of names from their list of licentiates, as is the case with the Society of Apothecaries under its Amendment Act of 1874. Should this clause become law as it stands these bodies will, apparently, either have to ignore an erasure of one of their licentiates from the *Medical Register*, which would be most disastrous, or if they erase a name from their list of licentiates will have to insist on re-examination before restoration. In this connection it may be observed that the ambiguity of the language employed in Clause 2 leaves it open to doubt whether deprivation of qualification would not in all cases involve the necessity of re-examination before a name could be restored to the *Register*.

It is to be feared that objections such as these, which undoubtedly are of a weighty character, will go far to endanger the likelihood of this Bill passing into law. Surely, however, it would be possible to recast and amplify the Bill, which at present suffers from undue compression, and to devise some efficient means by which offending practitioners may be effectually punished, not by depriving them even temporarily, of titles or diplomas, which necessarily involves questions of jurisdiction, but by suspending them from practice and the public use of their titles during such a period as may be determined by the General Medical Council. Mere erasure from the *Register*, as we have pointed out, may have no practical effect upon an offending practitioner so far as the public is concerned, but suspension from practice with consequent penalties would afford a more drastic remedy. In conclusion, while we find ourselves heartily in accord with the intentions of the General Medical Council in thus seeking to add to its disciplinary powers, we very much doubt whether the present Bill will easily escape the criticism of the licensing bodies whose support is, as above stated, essential to success.

TEACHER AND TAUGHT.

One of the most remarkable and most hopeful signs in the educational movement is the enthusiastic spirit widespread among teachers. The Winter Conference lately held was full of it; and no one can talk to or watch the work of schoolmasters without recognising that in the last thirty years a change has come over the profession, and that its relation to its pupils has altered. Masters are friends nowadays as well as teachers; and there is between the boy and the "don" a confidence and a freedom which are of the best effect upon the former, and perhaps not without importance to the latter. In England, Arnold of Rugby was the great reformer; but Pestalozzi the Swiss of a hundred years ago is the patron saint of the movement. There is more intelligence also on the part of the public than there used to be. Every serious child nowadays realises the education of his parents as a sacred task, and the most flippant parent is forced during the holidays to take upon himself the burden, which he usually delegates to another, of dragging up his son. The last month of trial has no doubt refined and chastened both parties, and has fitted us to consider what the special professors of education have to say about it.

The common practice of education has lagged till lately far behind the ideals which have been formed of it. The wide and sane views to which Milton and John Locke gave utterance in the seventeenth century might be still held up, for they have been only partially realised. But of late years the ideals of the few have become those of the many, and both in the study of individual character and in the width of influences which are pressed into the service of teaching we have made great steps to their attainment. Locke hated schools and drudgery. He was the great apostle of home education and of the useful, which he wished taught by easy methods. Milton, on the other hand, was, as we might expect, an advocate of school and discipline, of Latin and Greek, Chaldee and Syriac, and of training by severe application. The dispute is not ended yet, but the schools have adopted to a great degree the humaner tone and the moral training which both these great men agreed in urging. The rest is really a matter of investment. Everyone must take to useful learning some time or other, and how much time he spends upon previous mental gymnastics, the value of which is yearly more recognised, depends upon his pocket. The weight of authority is certainly in favour of the grammatical way of learning languages, whether the object be mental discipline or utility, and the dead languages and mathematics form now, as then, the staple of school teaching. The addition of science which has lately taken place in most schools will gradually supply the previously defective training in observation and inference.

The technical defects of the teacher have also been recognised of late, and much is being done in remedy. In Germany the art of teaching has long been taught in the universities, and is a subject with special professors of its own. Edinburgh and St. Andrews have formed similar chairs, and of late Oxford and Cambridge have been taking useful steps in training teachers.

It is interesting to remember that bodily training has held a prominent place in most of the ideal systems of education. We need not go to the Greeks and Romans for authority. Locke and Milton both emphasised its importance, and urged that dancing, fencing, riding, and wrestling should form part of a boy's regular training. Rousseau, who is the great apostle of the modern movement, went further still. Emile, his ideal scholar, was hardly able to read at 12 years old, but excelled in running, jumping, and all bodily accomplishments. Games are by no means a craze of recent years, but are, as Canon Lyttelton truly said, rather in a state of revival after two centuries of neglect. A university authority the other day lamented the decay of learning, and ascribed it to "those infernal games." But learning was never very widespread, and there are probably as many scholars now as usual, while there is no doubt that an open-air life and bodily exercise are great preservers of health and pleasure. The preservation of the capacity for pleasure is one of the best signs of mental vigour.

Dr. Clement Dukes, when he said that boys did not have enough sleep at school, raised an important subject. We agree with him. In casting up the profits of age, it is no slight matter that we shall never again in this world get up to morning school. How the Wykehamist blessed the junior in chambers who "sported a thoke." No one but a Wykehamist will construe that sentence, though in him a chord of rapture will be set vibrating by the words; but in truth lying in bed, which in middle life sinks into the ruck of mere pleasures, is to the schoolboy a foretaste of Paradise. He is no true boy who would not sooner miss his breakfast than get up. One of the few remaining uses for a father, now that most boys have their own steam cheque writer, is that about 8 A.M. he appears at the bedside of his offspring as a spongifer, and the sponge is wet.

The ventilation of schoolrooms and the shapes of school furniture, which were discussed by Dr. Newsholme, are equally important, and should the Duke of Devonshire carry out his intentions, there is no doubt that he will attend to them.

THE WORKING OF THE NEW VACCINATION ACT.

THE relations between the public vaccinator and the private practitioner created by the new Vaccination Act call for the exercise of the greatest tact and forbearance if there is not to be misunderstanding and jealousy. This is especially true during the first month or two of its operation, and particularly in regard to the question of the visiting by the public vaccinator of children born before the passing of the Act.

The Act says, "If any child is not vaccinated within four months after its birth, the public vaccinator of the district, after at least twenty-four hours' notice to the parent, shall visit the home of the child, and shall offer to vaccinate." This is quite open to the interpretation that a public vaccinator has a distinct duty in regard to every unvaccinated child of over 4 months in his district, and the question arises as to whether a prosecution could be sustained if the public vaccinator had not thus visited and offered to vaccinate.

The Vaccination Order, however, limits the meaning of this clause by requiring the public vaccinator to visit and offer to vaccinate all cases in the vaccination officers' lists. These must contain no children more than 4 months and 3 weeks old, and from them are excluded the names of all children in whose respect valid certificates of one kind or another are in the possession of the vaccination officer. The Order, therefore, makes no provision for the public vaccinator to visit and offer to vaccinate children born before the passing of the Act, but apparently contemplates their direct treatment as defaulters as soon as the age of 6 months is attained. The vaccination officer is bound by his instructions to "see that all children entered on the birth lists of his district are either duly vaccinated, or are otherwise properly accounted for in accordance with the law relating to vaccination." As it is unwise to call in the aid of the law unless absolutely necessary, many vaccination officers are giving the public vaccinators unofficial lists of children born before the passing of the Act who are not yet accounted for, and asking them to visit and offer to vaccinate, so that in court the magistrates may be convinced that everything possible has been done to meet the wishes of the parents and to comply with the spirit of the law as well as the letter of the Act. In such cases the wording of the Act intimates that at least twenty-four hours' notice should be given.

In some cases the public vaccinator has sent a circular letter to the medical practitioners in his district, giving a short summary of the changes effected by the new Act and Order, and pointing out the advisability of his fellow practitioners getting the children of their own patients accounted for either by vaccination or postponement before they reach the age of 4 months. This appears to be the most practical way of meeting the difficulty. In any case, we repeat, much tact must be exercised, and every effort should be made to avoid misunderstandings; in the course of another month things will be likely to settle down into something like order, and the occasions of friction be consequently reduced.

A correspondent has asked us an old question under new circumstances. He wishes to know whether a medical man, who is not a public vaccinator, ought to make only a small number of insertions of lymph, while the public vaccinator of the district, to fulfil the requirements of the Local Government Board, is obliged to make four insertions. Questions like this were frequently asked before the Vaccination Act of 1898 came into force, and, even under the conditions then existing, only one reply was possible. Downward competition in a matter so vitally related to the public welfare as is efficient vaccination can never be looked on as anything else than derogatory to the medical profession. Limitation of the number and area of the vaccine vesicles below the standard which experience has shown to be desirable, and which has been adopted by the Local Government Board, is a thing which was always to be deprecated. Yet, under the law as it existed up to the end of 1898, the best intentioned and most honourable medical man occasionally felt himself, in presence of parental solicitations to make only one or two marks, in a somewhat difficult position.

Whatever mischief the absurdly-framed conscience clause of last year has already done or may still do, it is surely right that the profession should take advantage of such incidental benefit as it is capable of yielding. There is no doubt that, with regard to this question of inefficient vaccination, the conscience clause does offer a remedy, and we shall be gravely at fault if we refuse to accept the offer. Every parent who presents a child for private vaccination should now be told that there can be no middle course between thorough vaccination and no vaccination. If the parent objects to the proper complement of marks—if he or she desires to add the child to the long list of those who are only half protected, and who go to swell the small-pox attacks among the vaccinated which figure in the records of every epidemic—the reply of the private practitioner should be a definite refusal. The parent would then have the choice either of having the child properly vaccinated, or of going to a Court of Petty Sessions and making declaration of conscientious disbelief in vaccination.

The British Medical Association did its best to induce Parliament to give, by the recent Act, the same financial recognition to the vaccination work of the private practitioner as to the work of the public vaccinator, the same standard of efficiency being required for both in order to obtain such recognition. Refusal to adopt this advice was one of the various blunders which the Government made in its Act of last year. Governmental blundering, however, affords no excuse to the medical profession for neglecting its primary duty of protecting the public health, even of protecting the health of the child against the folly of the parent; and on this question of thorough vaccination there should be no compromise. We trust that in the future we shall not hear any more of this paltering in a double sense, of these one-mark and two-mark vaccinations "that keep the word of promise to our ear, and break it to our hope," but that public vaccinators will have no reason to complain of downward competition on the part of their brethren in private practice.

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CENSURE ON A MIDWIFE.

AN inquest was held at Lincoln on January 27th by Mr. A. Trotter, the city coroner, on the body of an infant 20 days old, one of twins said to have been prematurely born, and weak from birth. The mother was attended by a midwife, and the child suffered for a week from convulsions, but no medical man was called in. The midwife told the parents that the child was sickly and would not live, and that it was not necessary to have a medical man. The midwife herself certified the death to the registrar, who reported the matter to the coroner. The father deposed that if it had not been for the midwife's statement he would have called in a doctor. The midwife stated that she knew from the first there was no chance of the child living. The Coroner asked her: Do you think it is your duty to pronounce once for all that a case is hopeless without having your opinion backed up by a medical man? Witness: I have done it in other cases repeatedly, and I have always been given to understand that I am quite at liberty to do so. When I was training I did the same thing, and I have always understood that I was at liberty to do it. The Coroner: Don't you think it is wrong for an unqualified person to take such a vast responsibility? Witness: I cannot say I do; because if this responsibility is so great, why has it been permitted so long? I have been in Lincoln six years, and I have done the same thing repeatedly. The Coroner: I have known people do very wrong things repeatedly; and I think it is very wrong indeed, and it is high time such a practice was stopped. Witness: Can you tell me what I ought to do? When we send for a medical man to an immature child he refuses to come to it. The Coroner: The worse you see a child, the greater your duty is to have the best medical opinion upon it that the parents can afford and Lincoln provide. Dr. MacFarland said there was nothing suspicious about the case; general wasting was the cause of death. If a medical man had been called in, and the child kept warm and given proper nourishment, it might have lived. It was a small child, but he did not think it was immature. The Coroner said the midwife had the reputation of being an experienced and able woman, and had the impression that she was as good as any doctor. But she had made mistakes over and over again. She had done a great wrong in arrogating to herself functions which were not hers. Midwives must not go beyond their duty, or they would get into serious trouble. The verdict was "Death from natural causes," the jury adding a rider that the midwife had exceeded her duty and ought to be censured. The Coroner thereupon informed her that she would get into very serious trouble if she took upon herself to diagnose what were hopeless cases, and prevent the parents fulfilling the duty imposed upon them by Act of Parliament. The case illustrates a good many interesting questions, but we shall content ourselves with pointing to one—that it affords striking evidence that any Midwives Act ought to contain a clause distinctly forbidding a midwife, under penalty, to give a certificate as to the death of any infant, or of stillbirth.

THE CLIMATE OF BRITISH HEALTH RESORTS.

AT the annual meeting of the Royal Meteorological Society, Dr. Groves, of Carisbrooke, Isle of Wight, drew attention to the importance of absolute accuracy in meteorological records, and said that only those observations made scientifically, and under authority, should be recognised. He thought that amateurism in meteorological matters could scarcely secure confidence, especially when it was associated with vested interests, and that, therefore, all records of persons commercially interested in a locality should be viewed with caution, if not with suspicion. Such records would include those made for and published by town councils and governing bodies of health resorts, and by people of whatever class, whose personal interests were very closely identified with the prosperity of such places. While avoiding any charge of intentional dishonesty, Dr. Groves expressed the opinion that there must be a bias, probably unconscious, in favour of a place with which the observer was intimately connected. For instance, if fractions were invariably given in favour of a health resort, this would in time produce an effect on the averages which would vitiate the returns. He even asserted that in the past instances had occurred in which, during a period of low temperature, or absence of sunshine, or excessive rainfall, no returns had been made, but the period had been credited with the average of many years. Dr. Groves further expressed the opinion that while seaside places on the southern and western coasts of Britain were enormously benefited in winter by the heat brought by the Atlantic at each flood of the tide, there could be no great difference in meteorological features between one of these places and another, except in the instance of limited areas entirely surrounded by the sea, and in those in which highlands caused condensation of the moisture of the atmosphere and consequent increased rainfall and diminution of sunshine. The real point of difference, he held, between health resorts in these districts in winter turned upon the amount of shelter from the wind. The object of invalids, and particularly those suffering from tuberculosis, who visited the British southern health resorts in winter, was that they might be able to spend as many hours as possible out of the twenty-four in the open air, and have their windows open all night. In order to do this they must be sheltered from the wind, and even though the temperature were a few degrees higher in an exposed locality it would not be suitable to such patients in winter. We are inclined to agree with Dr. Groves that there is some absurdity in the practice of rival health resorts, situated at no very great distance from each other, and subject to the same meteorological conditions, publishing meteorological returns against each other. There can be no doubt that the record of meteorological conditions ought to be kept with scientific precision, and that in calculating averages a year during which the observations have been for any reason incomplete ought to be excluded. If the Royal Meteorological Society would undertake the supervision of the local records, which should be made by competent and impartial persons, and would publish at intervals an impartial statement, such reports would be of great value both to the medical profession and to patients.

THE DEATH-RATE OF MEASLES.

DR. THOMSON, the Medical Inspector of the Local Government Board, the author of the well-known report on Measles in England and Wales, has recently presented a report on Measles at Burton-on-Trent, a borough of some 50,000 inhabitants, mostly of the working class, and largely dependent on the employment afforded by the famous breweries of the town. In 1896 measles was fatal to the extent of 1.7 per 1,000 of the population, and the prevalence continued into the following year, when 274 known cases occurred, and 7 deaths. In 1898 there were from January 2nd to August 13th, a period of thirty-two weeks, as many as 2,015 notified attacks, of which 29, or 14 per 1,000, proved fatal. The attack rate of 39 per 1,000 at all ages was 103, 152, 157, 228, and 218 respectively in the first 5 years of life. The death-rate was 0.56 per 1,000 at all ages, and 4.2, 7.7, 6.0, 0.7, and 0.7 in the several years of the first quinquennium of life. The fatality rate per 1,000 attacked was 50 at 1 to 2 years, and 40 and 38 respectively in the preceding and following years of life. Although the Notification Act in Burton-on-Trent includes measles, few cases were reported by householders; still, few cases are thought to have gone unattended medically. So far as was possible with a restricted sanitary staff, each invaded house was visited and revisited; but in the midst of the epidemic, the staff, consisting as it did of the local health officer, a nuisance inspector, his assistant, and a clerk, proved to be unequal to the task. Moreover, systematic information of a helpful sort from school authorities was lacking, and the Town Council failed to give such information to schools in all cases as would have been useful in tending to check spread of the disease. Closure of schools, too, would seem to have been delayed too long, though the evidence tends to show that the conditions of school life fostered the disease, and led not only to its extension among scholars, but also to its being carried to non-school-going children. And this, too, despite the fact that the physical properties of Burton are such that the disease did not get immediate hold of the town, as is so often the case with measles. Again, the hospital was not made use of in the initial stages of the epidemic, when isolation of cases not otherwise easy of isolation might, with other needed measures of precaution, have arrested the spread of the malady. Understaffing, however, seems to have been one of the greatest misfortunes of Burton, and will serve as a useful object lesson to other towns also. Dr. Thomson demonstrates that the sanitary officials worked heroically in the face of tremendous odds.

SURGEON WILLIAM J. MAILLARD, M.D., V.C.

The medical officers of the Mediterranean Fleet entertained Surgeon Maillard to dinner at the Malta Union Club on Friday, January 13th, in honour of his being awarded the Victoria Cross for his brave actions in the recent disturbance at Crete. Commander Vaughan Lewes, D.S.O., and the officers of H.M.S. *Hazard*, to which Surgeon Maillard belongs, were invited to meet him. About thirty sat down to dinner under the presidency of Deputy-Inspector-General Martin, and the proceedings were enlivened by the band of H.M.S. *Revenge*, kindly lent by Rear-Admiral Sir Gerard Noel, K.C.M.G. After the Queen's health had been drunk, the President, in a most eulogistic speech, proposed the health of the "Guest of the Evening," and congratulated him on receiving from Her Majesty the most coveted of honours—the Victoria Cross. Surgeon Maillard, in response, thanked his brother officers for the honour they had done him, and said that he was more than pleased to have done something for the honour of the medical branch of the Navy, and felt very keenly their sympathy and appreciation.

THE ARTIFICIAL PURIFICATION OF AIR.

A somewhat mysterious communication was made last week to the Académie de Médecine. It was to the effect that M. Jaubert, who is a chemist formerly attached to the École Polytechnique, had succeeded in finding a substance which, when used in proper proportion, was capable of moving from the air of a closed chamber the carbonic acid, watery vapour, and other irrespirable products produced by a living animal enclosed in the chamber, whilst at the same time giving out "automatically in exchange the mathematically exact quantity of ooxygen required." Two experiments were made by Dr. Laborde, the one on a guinea-pig under a bell jar, the other on M. Jaubert's brother, who wore a tightly-fitting respiratory mask. The nature of the substance is not mentioned, the only indication being that it is the lightest "reservoir" of oxygen in existence. The note is published only to obtain priority for the discoverer, but we are told that the research has been in progress since May last, with the approval and assistance of the French Ministry of the Marine, which was interested in M. Jaubert's scheme because it promised to be useful in submarine boats and in diving-bells. It is stated that 3 or 4 kilograms of this substance is enough to keep a healthy adult alive for twenty-four hours in a space hermetically closed. M. Laborde thinks that the substance will be of use also in medicine, since a few grams—an amount which can be easily carried in a waistcoat pocket—would at once yield several decalitres of very pure oxygen gas. As the inhalation of oxygen gas, which in conditions of imminent asphyxia—produced, for instance, by pneumonia or sudden failure of the heart—is generally called for under circumstances in which any delay seriously decreases the chances of recovery, there can be no doubt that M. Laborde's forecast will be fulfilled, if the mysterious substance proves, on independent investigation, to possess the properties attributed to it.

SUBTYLL AND CRAFTY DEVICES.

The recent convictions at Southport for fortune-telling by palmistry under Section IV of the Vagrancy Act, 1824, will serve to remind us "that every person pretending or professing to tell fortunes, or using any subtle craft, means, or device by palmistry or otherwise to deceive and impose on any of Her Majesty's subjects," can be convicted as a rogue and vagabond, and sentenced to a term of imprisonment not exceeding six months, subject to an appeal to quarter sessions. That palmistry or "palmestry" was known in the sixteenth century appears from the statute 22 Hen. VIII., c. 10. By that Act it was recited that "afore this time dyverse and many outlandysshe People, callynge themselfes Egyptians, usyng no crafte nor faick of marchandyse, have comen into this realm and gone from shire to shire and place to place in greate company, and used greate subtyll and crafty meanes to deceyve the people, beryng (*sic*) them in hande that they by palmestry could tell menne and women's fortunes, and so many tymes, by crafte and subtyltie have deceived the people of theyr money." Palmistry was not made an offence by this statute, but all persons practising it were compelled to depart the realm. This severe penalty was virtually abolished by the Vagrant Act of 1743, under the provisions of which all persons "pretending to be gypsies..... or pretending to have skill in physiognomy, palmistry, or like crafty device or pretending to tell fortunes," were punishable as rogues and vagabonds. This Act was in its turn superseded by that of 1824. From the case of Penny *v.* Hanson (18 Q.B.D. 478) we learn that "to cast nativities, give yearly advice, and answer astrological questions" is an offence within the meaning of the Act. In Monck *v.* Hilton (46 *L. J.*, M.C. 163) an interpretation was put upon the words "palmistry or otherwise." Baron Cleasby distinguished cases of palmistry from those in which use is made of great skill of manipulation and sleight of hand, where persons are found confident enough to back their eyesight against the skill and dexterity of the performer. It had been contended in that case that it was a necessary ingredient in the description of a "rogue and vagabond" that he should lead a wandering and vagabond life; but his lordship said, "Whatever an offender's position may be under other Acts of Parliament not relating to rogues and vagabonds, if he comes within the enumeration in Section IV, he is properly punished as a rogue and vagabond."

It is a remarkable fact that there is nothing in the section about practising palmistry for reward. The full offence appears to be committed by practising, etc., with intent to deceive or impose upon Her Majesty's subjects. It is probable, however, that practising with intent to deceive implies the idea that the person is doing so for the sake of gain, and the fact that there are no reported cases of practising without a view to gain is a negative argument in support of this contention. Owing to the paucity of cases upon the construction of this section, it is difficult to ascertain how far the Court would venture to extend the meaning of the words "by palmistry or otherwise." There are dicta of certain judges which support the view that something more than palmistry and occult arts *ejusdem generis* were contemplated by the Legislature at the passing of the Act. It might be argued that a Christian Scientist uses "greate, subtyll, and crafty meanes to deceyve the people," or, to use the language of the modern statute, deceives and imposes on some of Her Majesty's subjects. A prosecution conducted upon these lines might be an interesting experiment, if it were only to see how the magistrates would deal with it, but the well-known rule which prevents the extension of a criminal enactment by construction might prove a formidable obstacle in the way of its successful issue.

THE TEACHING OF VACCINATION TO STUDENTS.

Mr. E. Climson Greenwood has been appointed teacher of vaccination to the medical school of St. George's Hospital. Under the provisions of the Vaccination Act the teaching of vaccination at vaccination stations necessarily comes to an end. Under the arrangement now made at the St. George's School the teacher of vaccination will give a short course of lectures in the school, and will make arrangements for the students attending the lectures to accompany him during domiciliary visits. One advantage may be expected from the new conditions—namely, that the student will be able to watch the progress of the vaccine vesicle to a later stage than was the case under the old system.

THE *ARCHIVES OF NEUROLOGY AND PSYCHO-PATHOLOGY.*

The *Archives of Neurology and Psycho-Pathology* is a new periodical which is published under the auspices of the New York State Hospitals and the Pathological Institute, by permission of the State Commission in Lunacy. Nos. 1 and 2 of vol. i, now before us, give promise of a most valuable addition to neurological literature. The first paper is an attempt to display in a tabular form the changes in nerve cells which correspond with changes of physical or psychic activity. Such an attempt is successful in proportion as the two parallels can be kept apart and described each in the terms which properly belong to it. But in this subject this can only be done by a continual assumption of knowledge we do not possess. It is supposed that the neuron may be affected in three ways, or, since these may pass one into the other, in three stages or degrees. In the first, there is retraction of the dendrites, causing dissociation; in the second, there is parenchymatous disintegration of the cyto-lymph alone; in the third, degeneration of the cyto-reticulum. These correspond, the first two to what we may roughly call the slighter and the severer forms of functional disease; the third to organic disease, such as tabes dorsalis and general paralysis. But it is mere guesswork, and, though imagination is an important quality in scientific work, it is still more important that we clearly recognise what is imagination alone, and what is imagination corroborated by observation. There is as yet no observation which supports the supposed correspondence between the states of the neuron and the symptoms with which we are familiar in functional diseases. The remainder of the volume—238 pages—is taken up by a paper on the Correlation of Sciences in the Investigation of Nervous and Mental Diseases; it is a report from the director of the Pathological Institute of the New York State Hospitals to the State Commission in Lunacy for transmission to the Legislature, and is a justification of the various departments under his control, such as that of experimental psychology, and an insistance upon their importance. It is of course obvious that experimental psychology, whether of the normal or the diseased mind, is a valuable branch of investigation, and so are comparative anatomy, morbid anatomy, and other fields of labour, departments for which exists in the Institute. A paper urging this view in 238 rather close pages is extremely well suited to the Legislature, but will probably be less interesting to medical men.

THE IRISH DISPENSARY DOCTOR.

The guardians of Baltinglass Union have taken exception to the statement that visiting tickets have been issued to guardians and other undeserving committees; and they have passed the following resolution: "That the charges hurled broadcast and anonymously by the Irish Medical Association against the guardians of the poor and members of dispensary committees are of so grave a nature that we call on the Local Government Board to hold a full and sworn inquiry into them before taking action on the report, and that a copy of this resolution be sent to all other unions in Ireland." That is just what is wanted. We have been asking for an investigation for years. But it must not be held by the Local Government Board or its officers. We want a full inquiry into the whole system and its abuses and shortcomings, but it must be by an entirely independent Commission.

THE TIMOTHY GRASS BACILLUS.

Any facts connected with the life-history of Koch's tubercle bacillus, or any of the allied forms belonging to the tuberculous group, are of special interest at the present time, when such strenuous efforts are being made to minimise their power. Recently our knowledge concerning the micro-organism resembling tubercle bacilli has been increased. Now, Dr. Moëller[1] has successfully isolated the Timothy grass bacillus which inhabits the slopes of Görbersdorf, and appears to resemble Koch's bacillus more closely than any of its predecessors. This discovery may open up new paths for future inquiry. The vegetable world has not yet been suspected of harbouring organisms belonging to the tuberculous family. Moëller began by examining the Timothy grass surrounding the sanatorium on which the cows (supplying milk to the institution) are fed. A blade of grass was placed in a test tube filled with sterilised water, the open end being covered with an india rubber cap. The test tube was placed in an incubator for fourteen days at a temperature of 37°. Microscopical preparations stained with Ziehl-Neelsen showed bacilli resembling Koch's bacillus in taking the red stain and not the blue. The formation of rodlets and thread-like ramifications, clear oval spaces, and often bulbous extremities, were the points of resemblances with Koch's bacillus. The Timothy grass bacillus was isolated and grown on various media, the potato and glycerine agar culture was almost identical with a growth of Koch's bacillus. The pathological lesions found after injection experiments on guinea-pigs were practically identical with those seen in the case of Koch's bacillus. The animals died with lesions resembling those of miliary tuberculosis, the lungs, liver, and omentum were chiefly affected. Moëller usually took the specimens for future experiments from the cavities in the lung tissue. The usual giant-celled infiltration is seen in animals dying from injections of the Timothy grass bacillus; the semilunar-shaped cell, however, so characteristic in lesions produced by Koch's bacillus, has never been observed in the former case. The Timothy grass bacillus has been found by another observer in Würzburg. Moëller has also found it to be present on a species of grass known as the meadow foxtail, and the bromus erectus. The most convincing proof of the close relationship between the Timothy grass and Koch bacillus is the fact that they both take the chamois colouring matter. This characteristic is not shared by the other micro-organisms belonging to the tuberculous group. Raleinowitsch, who has examined the Timothy grass bacillus, admits that the butter bacillus shows a very different growth on the nutrient media. We know that under certain conditions the biological characteristics of the tubercle bacillus undergo a change; this being so, the question naturally arises whether under a different environment the Timothy grass bacillus may not more nearly resemble Koch's, or, in fact, be identical with it. The Pasteur Institute and the Gesundheits-Amt in Berlin are at present engaged in examining the life-history of this new bacillus, and we may hope before long to have more light thrown on this interesting problem. Moëller also succeeded in isolating what he calls the "dung bacillus," which is found in the fresh fæces of cows. The animals from whom he obtained the bacillus had previously been declared to be non-tuberculous, having successfully recovered from tuberculin injections. This micro-organism also belongs to the tuberculous group, and is chiefly distinguished from Koch's bacillus by its rapidity of growth. In the near future the examination and disinfection of grass may form part of the *régime* of our sanatoria.

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[1] *Therap. Monat.*, November, 1898.

CONSTANT WARMTH TREATMENT FOR CANCEROUS ULCERS.

The treatment of phagedenic sores by constant immersion is well known. In 1893 Welander reported excellent results from the application of constant warmth from small hot-water pipes in cases of soft chancre. He further found that his method proved useful in ulcers involving bone, in psoriasis, and in favus. Berlien, his pupil, devised a hydrothermostat and the instrument has been largely employed. Welander has always maintained that his method would soon be employed beyond venereal wards. Professor Westermark of Stockholm, seeing its beneficial effects, made use of the apparatus in a case of cancer of the cervix uteri. He had curetted and cauterised the part with a view to perform hysterectomy, but the patient was exhausted, so that no further steps could be taken in the direction of an operation on that occasion. The cavity in the cervix was packed with xeroform gauze, but fœtid discharge began to come away two days later. Constant warmth at 106° F. was applied to the ulcer for forty-eight hours. All fœtor disappeared and three days later total extirpation of the uterus was performed with complete success. As Berlien's apparatus is ponderous and costly, Westermark has contrived a small cistern capable of holding two or three gallons of water and warmed by a Bunsen burner. It is fitted with the usual valve to prevent overflow, also with a regulator for the heat; and rubber tubes can be fitted to the inlet, outlet, and waste pipes. The contrivance for local application is a small silver tube, specially curved three or four turns. A little absorbent wool is wrapped round it before introduction. Three different sizes are kept for use. One end of the silver tube is fitted to the rubber tube connected with the outlet pipe of the cistern. From the other end a similar rubber tube passes into a receptacle under the patient's bed. Lead is an unsatisfactory metal for the spiral tube, as its weight may set up pressure necrosis. The water in the spiral tube will be of a little lower temperature than that in the cistern when the heat is kept up. About 107° to 112° F. in the tube is sufficient to act on the sore, and yet to cause no pain, but some patients can bear over 135° F. The adjusting of the spiral tube to the cavity of the sore after the latter has been scraped and touched with the thermo-cautery seems easy. The warmth should be kept up for about forty-eight hours, but the time must be longer in cases where the patient cannot bear a warmth of over 104° or 105° F., and shorter when 120° or 130° F. can be tolerated. In seven cases Westermark has had uniformly good results. The patient who bore a heat of 135.5° F. seems to have done the best. The ulcer had destroyed the greater part of the cervix and infected the parametrium; the uterus was fixed so that hysterectomy was out of the question. The vast chasm was curetted and cauterised, then the spiral tube applied. In the course of a week free discharge followed, and the ulcer granulated well. A month later it had healed entirely, but there was some infiltration in the parametrium. Westermark's innovation certainly claims the attention of the profession.

"SKIAGRAPHY," "RADIOGRAPHY," OR "AKTINOGRAPHY?"

The coining of words on a Græco-Latin basis for scientific purposes is an absolute necessity now that works on science are written in several different languages. Their use is not a sign of pedantry; on the contrary, the affectation of "Anglo-Saxon" terms such as "voice-box" (which is not Anglo-Saxon) for "larynx" is essentially pedantic, and increases difficulties which it professes to obviate. Still, it is clear that a scientific term should be made thoroughly international. This is not always the case, as the words "potassium" and "kalium" testify. Our contemporary, the *Chronique Médicale*, justly complains that Roentgen's new photography and photographs are termed "skiagraphy" and "skiagram" in English, "radiographie" and "radiogramme" in French, and "aktinographie" and "aktinogram" in German. Further regret is expressed that Professor Roentgen himself did not supply precise and definite terms, which would undoubtedly have been adopted in all languages.

THE HISTOLOGY AND BACTERIOLOGY OF THE OYSTER.

The paper by Professors Herdman and Boyce, read at a recent meeting of the Royal Society, contains facts which tend to show that, once removed from the sea, oysters are readily infected, and that with organisms of known pathogenicity. The primary object of the investigation was to study the oyster under unhealthy conditions in order to elucidate its alleged connection with infective disease, but they found it necessary to include in the research much work on its normal histology. Attacking the problem of "greening" of oysters, they showed that this phenomenon can be classed under two heads, one normal and healthy as in the cases of the green Marennes variety, and those of some rivers on the Essex coast, and the other pathological and dependent upon contained copper, as in the case of some Falmouth oysters, or, as in some American species rebedded on our coast, on a pale green leucocytosis. The normal greenness of the Marennes oyster depends upon the presence of a special pigment "marennin." The authors believe that there is no connection between the green colour of the "huîtres de Marennes" and the iron they contain, which in no case did they find in excess of the normal. In the Falmouth oysters much of the copper is mechanically attached to the surface of the body in an insoluble condition, probably as a basic carbonate. They find that an aqueous solution of pure hæmatoxylin is an extremely delicate test for copper. They did not find the B. typhosus in any oysters from the sea or markets, but recovered it up to the tenth day from those inoculated. It never multiplied in the body or tissues, and died out in the intestine. Sea water hindered its growth. Infected oysters washed in a stream of fresh sea water were gradually freed of bacilli. Organisms belonging to the coli group, though not found in oysters obtained from pure sea water, were readily demonstrated in shellfish as sold in towns. Again, the B. enteriditis sporogenes of Klein was frequently isolated from molluscs obtained from shops. In consequence of this, the authors have drawn up a set of recommendations with regard to the sanitary regulation and registration of oyster beds, and as to quarantine for oysters imported from abroad.

THE NEW ANTHRAX ORDER.

THE Board of Agriculture, exercising powers conferred upon it under the Diseases of Animals Acts, 1894 and 1896, has issued an Order called the Anthrax Order, 1899, which deals with and arranges for the disposal of animals suffering and dying from splenic fever. Formerly farmers believed that anthrax was due to feeding cattle upon too highly nutritious or artificial foods, and that death was the result of apoplexy. It has now been known for a good many years that this theory is quite erroneous, and it would be well if farmers and the public generally took the proper view of the illness—namely, that it is microbic, for it is only people who have an intelligent opinion as to its causation who can cope successfully with the malady. The Order insists upon early notification of the disease to the local authority, and for reasonable facilities to be given for examination of affected animals and premises. It makes it an offence for any person to remove the milk of a diseased cow, and requires that no animal shall be removed until authority is given by an inspector. The Order provides for the burning of all the litter and offal of diseased animals, and requires in the case of death from anthrax that the carcass shall be buried six feet below the surface of the earth, with a layer of lime one foot in thickness above and below it. In view of the fact that it is the spores of anthrax that are endowed with longevity lasting for months, it is a moot point whether it would not be better to erect a simple crematorium over or near the place where the animal died, and burn the carcass. Fire is an absolute purifier. Many outbreaks of splenic fever must have been caused by the spilling of blood rich in spores from an affected animal or the dropping of secretions from the nostrils of a dead beast. It is therefore ordered that the skin of an infected animal must not be cut, and that in the event of removing a carcass the nostrils must be stopped with tow soaked in a strong solution of carbolic acid.

TRACHOMA AND EPIDEMIC EYE AFFECTIONS.

PROFESSOR SCHMIDT-RIMPLER, in a recent article in the *Deutsche medicinische Wochenschrift*, observes that formerly follicular conjunctivitis and trachoma (granular lids) were thought to be different stages of one and the same disease. It is now known that enlarged follicles are to be found in the palpebral conjunctiva without any subjective symptoms and without signs of conjunctivitis. In an examination of 1,662 school children in 1885, Schmidt-Rimpler found enlarged follicles in 27 per cent, Again, in February, 1898, amongst 299 students at the Göttingen Gymnasium, he found, in the absence of any epidemic, 43 with follicular formations (26.4 per cent.) Stephenson's observations confirm this; in fact, he holds that the so-called follicular granulation is present in some degree in almost all persons under 20 years of age, and that it is the expression of the "adenoid activity" of young subjects, being strictly comparable with the follicular affection of the pharynx. To simple folliculosis a conjunctival catarrh may be added, the condition being then spoken of as follicular catarrh. Epidemic eye affections comprise catarrhal (muco-purulent) ophthalmia, of which follicular catarrh is a variety; purulent (gonorrhœal) ophthalmia; acute trachoma, practically only met with in parochial schools; and diphtherial ophthalmia, of which no epidemics have been recorded in this country. In the better class schools epidemic ophthalmia is nearly always of the catarrhal type, and infection occurs perhaps through the air as well as by contagion. Trachoma is spread simply by contagion, direct or indirect. Catarrhal conjunctivitis has been proved to be due to bacteria, more particularly Weeks's bacillus and the pneumococcus; but the specific nature of trachoma is not yet proved, though diplococci have been found in the discharge. It is well known that trachoma is very prevalent in the eastern parts of Germany, and Schmidt-Rimpler urges that it is the business of the State to combat it, as it is a source of national weakness by the amount of blindness and incapacity which it occasions. In this country less than 0.75 per cent. of those attending eye hospitals suffer from trachoma. In the East the proportion is much higher. Of 4,000 Egyptians van Millingen found 80 per cent. trachomatous; Trantas of Constantinople estimates trachoma as 15 to 18 per cent. of his cases; in Smyrna it is more prevalent than in Constantinople. Schmidt-Rimpler when on a recent visit to these regions was much struck by the fact that nearly all the patients coming for treatment were already in the cicatricial stages, "sago grains" being conspicuously absent. He comments favourably on Kenneth Scott's method of treating pannus by slitting up the vessels running on the cornea, but prefers to cut them across at the periphery of the cornea (partial peritomy); vision is often thereby much improved. While trachoma is best prevented by securing good hygienic conditions of life, existing cases should be isolated and subjected to skilled treatment and supervision. Timely expression of the granules with suitable forceps followed up by the repeated application of strong solutions of perchloride of mercury (1 to 4 per cent.) gives perhaps the best results and lessens the risk of disastrous sequelæ.

CONTINUOUS INTRAVENOUS INJECTIONS.

IT is generally recognised that during the collapse stage, which is the most fatal period in cholera, the function of absorption by the alimentary tract is almost completely in abeyance, so that treatment by the mouth and rectum is almost impossible; but after intravenous injection of saline solution all the symptoms of the algid stage, with few exceptions, rapidly vanish in the course of a few minutes, and a patient has been several times rescued from a moribund condition and brought to one of comfort. But the improvement is only temporary, and but few patients have hitherto been rescued from death by this means. Mr. R. H. Cox, F.R.C.S., of Shanghai,[1] has devised a method of continuous intravenous injection. The patient is placed on his back in bed. A prominent vein is looked for, at the bend of the elbow for choice, where either the median cephalic or median basalic may be selected. The long saphenous just above the inner malleolus is also a suitable site. The part is then washed, and a bandage applied round the limb above, as in the operation for venesection, tight enough to impede the venous but not the arterial current. If the pulse is not altogether gone at the wrist this will make the vein more prominent. With the scalpel an incision half an inch long is made through the skin, over and in the course of the vein. A little dissection is now necessary to clean the vein and permit of the probe being passed beneath. When this is accomplished, the injection apparatus being ready, the anterior wall of the exposed vein is opened by puncturing it with the sharp pointed scalpel (or better, a Syme's abscess knife) and cutting to the extent of about two lines. The ligature is then removed from the arm, and, as the dark blood flows the tapering nozzle of the injection apparatus, with the solution running, is inserted into the opening till it completely fills it. If the fluid is flowing, as shown by a fall in the reservoir, a padded splint is applied to the back of the arm and fastened above and below with two strips of rubber adhesive plaster, while a third strip is brought from the middle of the splint round the arm and glass nozzle, so as to fix the latter. Mr. Cox says that this is best done by dividing up the free end of the plaster into three strips and then bringing one under and two over the nozzle. When the nozzle is securely placed, and the injection satisfactorily flowing, the probe may be gently removed. The nozzle should be held perpendicularly to the surface of the part in passing its tip into the vein, to avoid the possibility of passing it into the sheath or between the coats of the vein, and then directed upward along the course of the vessel. After removal of the tube the wound is dusted with iodoform and a pad and figure-of-8 bandage applied. Mr. Cox finds that the apparatus thus arranged can be used for hours with very little discomfort to the patient. In one case in which he employed this method the injection was continued for four hours—and its employment should be continued as long as the flow lasts, or till it is believed all danger from collapse is passed. Should the injection not have been continued long enough, as shown by a return of pulse failure and other collapse symptoms, the operation should be repeated in a new place. By this means a warm saline solution is injected at the rate of one ounce a minute under a pressure of 2½ feet of water column. Mr. Cox believes that by its use, in the early stages, the mortality may be reduced from 50 to 15 per cent.

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[1] *Chinese Imperial Maritime Customs: Medical Reports*, II, Special Series, No. 2. 55th issue

KISSING THE BOOK.

We have frequently had to call attention to the difficulty which has been encountered in inducing magistrates and even judges of the high courts in this country to carry out the provisions of the Oaths Act by directing the oath to be administered in the Scottish fashion without questioning the witness as to his reasons for preferring that method—reasons obvious enough to any person who has given attention to the matter. A telegram from Washington, published in the *Daily Chronicle*, states that American magistrates appear to be more enlightened than some of our own. It is stated that one of the magistrates of New York City recently announced that he would not permit witnesses in any case to kiss the Bible when they took the oath in his court, giving as his reason the fact that he was satisfied that a young girl recently contracted a loathsome disease in his court in that way. It is added that other magistrates in the United States have forbidden the kissing of the book for the same reason.

CREMATION IN JAPAN.

According to a writer in the *Sei-I-Kwai Medical Journal* the cremation of dead bodies was introduced into Japan in the reign of the Emperor Jito. Little is known as to the methods practised before the middle of the present century. From 1860 to 1868 there was no special place for the purpose. A small hole was dug in a field, and stones were placed at each end, on which the coffin was placed. The fuel was placed under and all over the coffin, and set on fire. At midnight the stones supporting the coffin were taken away, and the body was allowed to drop into the hole, where it was covered with wet straw mats and more fuel and further burnt, till nothing remained but white bones. This method is said to be still in use at the present day in certain country districts in cases of death from infectious diseases. About 1871 special cottages were erected for the purpose of cremation. They were made of earth heaped up in a mound, with a hole at the top for the escape of the smoke. Inside the cottage were several holes in which bodies were burnt. The burners were of a very low class, and not only stripped the corpses handed over to them of their clothing, but extorted "tips" from the mourners. They also claimed as their perquisite the ashes, which they sold for use as medicines. At the present day cremation is year by year coming more and more into use, but is still not nearly so common a way of disposing of the dead as earth burial. For instance, of 34,000 persons who died at Tokyo in 1897, 15,000 were cremated and 19,000 buried, giving a percentage of 40 per cent. The corresponding percentage in 1890 was 41; in 1891, 36; in 1892, 41; in 1893, 36; in 1894, 37; in 1895, 39; and in 1896, 38. In 1898 it is estimated that it was 42 or 43. At Tokyo there are seven crematoria, all much alike in construction. The Nippori crematory, which may be taken as a type of the others, is situated near the Tabata Railway Station, about half a mile distant eastward. On the right side within the gate there stands the "Saishidō" (or mortuary chapel), with a statue of Buddha in a corner. On the lintel of the gateway leading to the cremation place proper the company has hung a frame, with a notice intimating the readiness of the company to meet the wishes of their customers at reasonable figures. Within the crematory are thirty-two furnaces in two buildings divided into different classes—namely, first, second, and third. They are all built of brick, with a double iron door in front; inside each an iron frame is spread, on which the coffin stands; and underneath it at the bottom there is a place for fuel. There is a small hole at the back, through which the fire is kindled, and a pipe on the upper part of the furnaces for the escape of the smoke. Although there is a difference of price in the three classes, the mode of burning is exactly the same in all. The first and second classes differ from the third only in the fact that blue curtains are hung in the front during the process, and they are watched the whole night by the keepers, two for each first-class cremation, and one for the second class; while for the third class one man has charge of many furnaces at the same time. The nearest relative of the deceased—father or brother—having paid the required charges, burns incense at the "Saishidō" or sanctuary. The coffin is then put into a furnace, and is sealed by the nearest relative, who on receiving the key goes home, and returns again the next morning to collect the bones. The attendants pour in kerosene oil upon the fuel through a small hole in the back, and set it on fire as soon as the night comes. The process takes from three to five hours.

THE PROPOSED INDIAN AND COLONIAL *ADDENDUM* TO THE *BRITISH PHARMACOPŒIA*.

The Pharmacopœia Committee of the General Medical Council has prepared and presented to the Council a carefully-drawn up report on the proposed official *Addendum* to the recently-issued *Pharmacopœia*, dealing with drugs which are specially suited for use in certain of our colonies and dependencies, the reason for their inclusion being that they are local, and therefore cheaper products, suitable as substitutes for certain official remedies, or that they are specially adapted for the treatment of certain local diseases. The question as to such additions was first brought forward as long ago as 1886, and after some negotiations a communication from the Secretary of State for India was formally considered by the Council in 1892. In this it was shown that certain of the drugs described in the *British Pharmacopœia* could, in relation to the Indian Empire, be usefully substituted by drugs indigenous to India, and that certain medicinal compounds employed there could advantageously be prepared by altering and amending the formulæ. Through the medium of the Colonial Office, various medical and pharmaceutical authorities in the Colonies were invited to send in suggestions of the same kind. In all, twenty-eight replies were received; eleven of the authorities stated that they had no suggestions to offer, as the climatic and other conditions of Great Britain and Ireland so nearly resembled their own that the *British Pharmacopœia* was in every way quite suitable and convenient for their requirements. The remainder have made various suggestions as regards additions, substitutes, and alterations of formulæ. These were found very valuable in preparing the *Pharmacopœia* of 1898, and many of the suggestions were incorporated in the text. In addition it was found possible to include a very small number of alternative substances in an appendix. It was thought, however, that the most convenient plan would be to prepare a special *Addendum* dealing with these remedies and preparations in a satisfactory and exhaustive manner. As a first step towards the realisation of this design the present preliminary report has been prepared by Dr. Attfield. It has not been thought desirable to recognise the drugs suggested as mere substitutes for drugs entering into preparations now official, save in the case of a very few substances. The drugs mentioned in the report, and now suggested for official adoption, have as far as possible been recognised for their own merits, and have been described in accordance with the plan hitherto adopted in the *British Pharmacopœia*, but in a few cases it has not as yet been found possible to obtain satisfactory specimens for description. The present report is to a large extent tentative, and has been circulated to all the bodies and authorities interested with the object of obtaining criticisms, additions, and amendments. It is requested that all suggestions and criticisms should be sent in as soon as possible to Dr. Attfield, addressed to the office of the General Medical Council, 299, Oxford Street, London. The aim of the General Medical Council is to produce, sooner or later, a *Pharmacopœia* which shall be equally useful in every part of the British Empire, but the Council desires to recognise special articles for special Colonies or dependencies in such a manner as to avoid undesirable substitution of one drug for another in other parts of the empire. In general arrangement, type, etc., the pages of the *Addendum* will resemble those of the current *Pharmacopœia'* and it is to be understood that any suggestions will have the fullest and best consideration of the General Medical Council. The preface to the *Pharmacopœia of 1898* includes a direct invitation from the General Medical Council to all medical and pharmaceutical authorities in Her Majesty's dominions to aid in the realisation of this imperial project; and the General Medical Council now extends this direct invitation to all collective authorities and to individuals who do not communicate with the Council through Government departments.

THE UNIVERSITIES OF FRANCE.

The newly constituted universities of France have now been in existence for more than a year, and the *Semaine Médicale*, in a recent number, reviews their present condition and attempts to forecast their future development. The old universities, which were swept away at the Revolution, were the homes of religious, political, and scientific intolerance, and were ill adapted for more progressive times. The Faculties which took their place were mere special schools, and the predominance of Paris overshadowed the provincial schools, and tended to produce atrophy in them, in regard both to their teaching equipment and to the number of students. With the object of infusing new life into these provincial Faculties they were transformed into universities. It was intended to widen the scope of the work of the Faculties, and to make them centres of the broadest culture instead of mere professional schools. The German and particularly the Prussian universities, were taken as the models of the new institutions, as they had already been in the case of similar establishments in Switzerland, Belgium, Holland, Austria, Italy, Russia, and Japan. What was aimed at was to imitate the German universities without slavishly copying them. With this object local centres were created where the different Faculties might be in closer relationship than they had been in the past. It was a movement of decentralisation, the old University of France created in the First Empire being disintegrated into a number of autonomous universities each with a local habitation, in which it was hoped that an independent life would develop, and a name around which local and personal traditions would form. These universities were given the power of conferring degrees, but these degrees are simply university diplomas—that is to say, honorary titles, the State still reserving to itself the sole right of granting degrees which give the right to practise medicine, law, or other professions. Hence the degrees are practically worthless for foreigners, whom it was one of the professed objects of the creation of universities to attract to French schools. It would appear, moreover, that the universities are still virtually mere Faculties, the students entering a particular Faculty and belonging to it and not to the university at large. Again, the new system imposes some extra expense on the student who has to pay fees to the university as such besides those which he pays to the faculty, without receiving any corresponding advantages. Thus he has to pay a matriculation fee every year, he has to pay a library fee, and other university dues. The *Semaine Médicale* points out that the French universities will have an effective existence and will constitute a real progress in higher teaching only if the various Faculties composing them form an organic federation in which the student may find larger conditions of instruction and work than he did in the old Faculties.

THE EXCRETION OF ACETONE.

Some interesting experiments have lately been undertaken by Müller (*Archiv. f. exper. Pathol. u. Pharmakol.*, vol. xl, pp. 5 and 6) with regard to the quantitative estimation of acetone in expired air. The presence of acetone in the breath of patients suffering from diabetes mellitus has been observed by many, but the amount given off in the expired air has not previously been estimated. Before commencing his experiments Müller was careful to exclude those cases in which a trace of an iodoform constituent is to be detected in the breath of healthy individuals, especially of those who are in the habit of taking alcohol. In the cases selected alcohol was withheld for twenty-four hours before the experiments began. The result of the experiments showed that acetone was excreted in the breath of diabetics who had been deprived of carbohydrate food at the rate of 20 mg. per hour. The excretion was much greater when a healthy person had taken acetone by the mouth; the whole buccal cavity had, of course, been carefully cleansed before the experiment began. In diabetics the largest amount of acetone is excreted in the urine, whereas in healthy individuals with a proteid and fat diet the greater amount is found in the breath. Another series of experiments was undertaken to ascertain whether acetone was excreted by the skin. The amount was found to be so small that it can practically be excluded in conducting a quantitative analysis. It will be interesting to see whether further experiments will confirm Müller's researches.

Dr. F. J. Waldo, Medical Officer of Health to St. George the Martyr, Southwark, and to the Inner and Middle Temple, has been appointed Milroy Lecturer by the Royal College of Physicians, London, for 1900. The subject of the lectures will be Summer Diarrhœa, with Special Relation to Causation and Prevention.

The first of the course of Lettsomian Lectures on Some Clinical Aspects of Granular Kidney by Dr. Samuel West will be given on Monday next. It will deal especially with the early diagnosis of the disease and the physical signs by which it may be recognised in its earliest stage.

The annual general meeting of the Hunterian Society will be held at the London Institution, Finsbury Circus, on Wednesday, February 8th, at 8 P.M. Sir Hugh Beevor, Bart., M.D., will deliver the annual oration on The Declension of Phthisis, at 8.30 P.M. Members of the medical profession are invited to attend. The annual dinner of the Society will be held at the Cafe Monico on Friday, February 10th, at 7 P.M.

THE RIGHT OF LICENTIATES OF THE SOCIETY OF APOTHECARIES TO DESCRIBE THEMSELVES AS PHYSICIANS.

WE published last week a brief outline of the arguments of counsel in the Hunter Appeal case, but as the points raised, and especially the historical aspects of the matter upon which Mr. Muir Mackenzie, who appeared for the General Medical Council, more particularly dwelt, are of considerable interest and not easily available, we think it well to publish the following full report of the arguments on both sides.

Mr. Haldane: The question which arises for your lordships' decision is whether a gentleman who was a Licentiate of the Society of Apothecaries was entitled to describe himself as a physician. It is a question whether he was rightly convicted. There was a summons which came before the magistrates of Cambridgeshire on which they stated a case under Section XL of the Medical Act of 1858. Your lordships will find when I call your attention to the Acts, that no person can now be registered as entitled to practise medicine in any shape or form without being qualified in medicine, surgery, and midwifery, that is so under the legislation which was passed in 1886, but before that it was otherwise. I should tell your lordships that what this gentleman did was to describe himself on his plate and in his accounts as: "So-and-So, physician and surgeon."

Mr. Justice Channell: Will you tell us what it was he considered himself entitled to be called—surgeon?

Mr. Haldane: I was going to call your lordships' attention to the Act more fully, but I will tell you at the moment he was a Licentiate of the Society of Apothecaries, and as such he had passed an examination and was qualified in surgery, medicine, and midwifery; he had to be that under the statute of 1886. Your lordship knows there is now a *Medical Register*.

Mr. Justice Channell: Yes; but I had an idea a man had to have a separate qualification for medicine and surgery.

Mr. Haldane: No, it used to be so. That was so before 1886; but now the Legislature has said—I suppose thinking you cannot distinguish the boundaries of these provinces of the science of medicine—that you must be qualified in all those three things. The "L.S.A."—that is, Licentiate of the Society of Apothecaries, 1886; and your lordships appreciate why that is put in, as it would not apply to anybody who was Licentiate under the earlier law—"can call himself by any title which he prefers to adopt denoting his right to practise medicine, surgery, and midwifery, provided that he does not directly or indirectly assume a title conferred by another licensing body or university." Now, my lord, I adopt that as my contention. That is the point which I am going to argue before your lordships; and, if I am right upon it, I think your lordships will find the conviction must be quashed. The real substantial point which we have come here to argue is whether the Society of Apothecaries are right in the instruction which they have given to their Licentiates, and which I have read from that document, that they are entitled to call themselves by any description they like entitling them to practise in surgery, medicine, and midwifery, provided they do not hold themselves out as possessing one of the particular qualifications mentioned in the Medical Act which they do not possess, that is to say, the degree or diploma of some body other than the Society of Apothecaries. Mr. Haldane then proceeded to call attention to the Medical Acts of 1858 and 1886. Before the above-mentioned Acts were passed there were a number of bodies which had had more or less monopolies of the right to practise their own department of the science of medicine, and they were protected by various charters and by various statutes, some of which are unrepealed, and which leave the law if one came to examine it scientifically, in a somewhat obscure position. There is an old statute, for example, which says nobody is to practise physic under a very substantial penalty unless he has been approved by the Bishop of the Diocese before doing so. That Act is nominally unrepealed still. The original charter of the Society of Apothecaries was, I think, 13 James I., and it gave the Society what was in substance apparently a monopoly of the right to compound and dispense drugs, the art and mystery of drugs, and it enumerated a number of drugs which at that time were regarded as of great importance, but which probably your lordship would think, if I read their names, sounded strange and savoured more of the art of the alchemist than of the modern druggist. Whether that was so or not, by a later Act passed in 1815 the position of the apothecaries became clearly defined. They still had the right to dispense drugs; but that statute recognised them as what they really are, namely, a body the members of which prescribe and dispense their own prescriptions. No doubt originally the apothecary made his money by selling the drugs; he was called in and prescribed, and he sold his drugs; but now the apothecary corresponds more nearly to the general practitioner, who your lordship is aware, is in many cases his own dispenser, where he makes up his own prescriptions and charges for them, and perhaps the best definition of an apothecary is a person of medical skill who is called in and prescribes and afterwards makes up and dispenses, or has a right to make up and dispense the drugs which he has prescribed. The Act of 1858 for the first time sought to bring the various bodies which wanted diplomas and qualifications to practise the various branches of medicine into some common co-ordination. That Act established a Council called the General Medical Council, and the first part of the Act relates to the people who are to become members of that Council, and who are to have the control which the statute gave over the general medical profession. The purpose, as your lordships presently will find, was to produce some uniformity in the standard of qualification. Then your lordships will see, following Section XXI, a number of bodies who are recognised in Schedule A, and if you look to the table of those bodies you will find that the Licentiates of the Society of Apothecaries are recognised under the Medical Act, and that the Society of Apothecaries has representatives upon that Council under that Act.

Mr. Haldane then referred to various sections under the Act of 1858 and continued: Now, my lords, I come to Section XXXI, which is the first of the sections on which this case turns. "Every person registered under this Act shall be entitled, according to his qualification or qualifications, to practise medicine or surgery, or medicine and surgery, as the case may be, in any part of Her Majesty's dominions and to demand and recover in any court of law, with full costs of suit, reasonable charges for professional aid, advice, and visits, and the cost of any medicines or other medical or surgical appliances rendered or supplied by him to his patients. Provided always that it shall be lawful for any College of Physicians to pass a bylaw to the effect that no one of their Fellows or Members shall be entitled to sue in manner aforesaid in any court of law." Then Section XXXII: "No person shall be entitled to recover any charge in any court of law for any medical or surgical advice, attendance, or for the performance of any operation, or for any medicine which he shall have both prescribed and supplied." Your lordships will notice those words distinguish the case of any apothecary from a mere druggist. The druggist, your lordships follow, compounds according to a prescription which is given by somebody else, and sells the drugs. An apothecary, it is true, compounds and dispenses, but he compounds and dispenses in accordance with his own prescription. It says no such person—it is carefully worded not to cover the case of the druggist—shall be able to recover unless he prove at the time that he is registered under the Act. When you come to Section XL you will see what protection is given to various bodies and to the public by imposing a penalty, not on the general practice of medicine—you may do that although you are not registered—but on holding yourself out as a legally-qualified or registered practitioner. Section XL is the section under which the magistrates proceeded. The learned counsel then proceeded to read the section. The Act of 1886 made a very substantial change. Whereas under the Act which I have read the various qualifying bodies were only compelled to make returns as to their course of studies. and allow their examinations to be open to a certain amount of inspection, the Act of 1886 was very much more rigorous. It abolished practically the power of the various bodies to say what should be the standards of qualification; and it enacted in the second section: "On and after the appointed day a person shall not be registered under the Medical Acts in respect of any qualification referred to in any of those Acts unless he has passed such qualifying examination in medicine, surgery, and midwifery as is in this Act mentioned." Under the old law a man might be a physician so far as the Charter of the College of Physicians went without knowing surgery and midwifery. He has now to be qualified in those. So with an apothecary and so with a Doctor of Medicine of a University, he would have to show he had passed a proper qualifying examination in all those things. Section VI is the only section in this Act with which I have to trouble your lordships: "On and after the appointed day a registered medical practitioner shall, save as in this Act mentioned, be entitled to practise medicine, surgery, and midwifery in the United Kingdom, and (subject to local law) in any other part of Her Majesty's dominions, and to recover in due course of law in respect of such practice any expenses, charges in respect of medicaments or other appliances, or any fees to which he may be entitled, unless he is a Fellow of a College of Physicians"—the College of Physicians having a special by-law.

Mr. Justice Channell: The substance of that is that it alters the words in Section XXXI of the former Act, which said that a person registered under this Act shall be entitled, according to his qualification or qualifications, to practise medicine, surgery, or medicine and surgery, as the case may be. The medicine or surgery is practically taken out.

Mr. Haldane: That is exactly it.

Mr. Justice Channell: And a man now gets a qualification to practise both, and can only have a qualification to practise both.

Mr. Haldane: That is quite so.

Mr. Justice Channell: That is what I did not know. I was familiar with the form of law, but I did not know that before.

Mr. Haldane: Now there is a statutory qualification required in all those three things, and when a man has got it he is entitled to practise in these three subjects instead of being in such a position that he might have said, "I am entitled to practise midwifery alone or medicine alone or surgery alone," as was the case under the old law. Obviously what the Legislature thought was that you cannot distinguish the limits of surgery and medicine. The surgeon is constantly called in to deal with cases which trench within the domain of medicine, and the physician is constantly called in to treat matters which are perhaps appropriate to the surgeon. Now we come back to Section XL, and the words of that section. In this case my client has his qualification as an apothecary. It is a certificate of the Apothecaries' Society in this form: "Know all men by these presents that the Society of Apothecaries of London, after deliberate and careful examination, have found"—Mr. Hunter in this case—"to possess the knowledge and skill requisite for the efficient practice of medicine, surgery, and midwifery, and he is hereby admitted a Licentiate accordingly." Now, my lords, that being the position of this gentleman, was he entitled to describe himself as "physician and surgeon." which is what he did, or to use the title "physician," which is the part of his name in respect of which the summons was taken out against him? I will read Section XL once again...... That is to say a man might tell the public "I am a qualified physician," and he would be entitled to see patients, but he is not entitled to say "I am a physician" if he is not qualified, because the law takes that as meaning that he is representing to the public that he is legally qualified to practise physic. I suggest to your lordships that the meaning of the word "physician" is a person qualified to practise physic. and if you take the title of physician it means that you are representing that you are legally qualified to practise physic, just as if you take the title surgeon you are representing you are legally entitled to practise surgery. What I suggest to your lordships is that the meaning of the section was not to allocate different titles to different bodies, but it was to say you are not to describe yourself by anything which might suggest you are registered under this Act.

Mr. Justice Channell: At the time the Act was passed it must have meant something different, because at that time medicine and surgery were distinct, and a man might have a qualification for one and not the other. Surely he might have been prosecuted, might not he?

Mr. Haldane: If he represented himself as a physician being only qualified to practise surgery, or as a surgeon being only qualified to practise physic he might have been prosecuted.

Mr. Justice Channell: Quite so. Therefore it does not follow that those words physician, doctor of medicine, licentiate of medicine, and so on, were in fact distinguishable and distinguished at that time.

Mr. Haldane: I do not suggest that this is not so, but I do suggest they are not distinguished as the exclusive property of particular licensing bodies. What I do suggest as the probable and proper construction of this Act is that it is not intended to give any monopoly to these bodies of any of these words.

Mr. Justice Channell: Could this gentleman have called himself a Doctor of Medicine?

Mr. Haldane: No, my lord, because "Doctor of Medicine" would at once suggest a title; at least, I think that would be the case.

Mr. Justice Channell: I think so also if that is on the same footing as the other descriptions in this Section: Physician, Doctor of Medicine, Licentiate in Medicine, and so on.

Mr. Haldane: Yes, but "Practitioner in Medicine," that is a title which you see has nothing corresponding to it.

Mr. Justice Channell: This gentleman is a Licentiate in Medicine and Surgery?

Mr. Haldane: He is.

Mr. Justice Channell: That is one of the special things which is put in here that a man was to possess.

Mr. Haldane: He has got a licence to practise medicine and surgery, but a Licentiate in Medicine and Surgery I suggest means Licentiate as distinguished from Fellowship. Several of these bodies have two titles. There was the higher title "Fellow" and the lower title of "Licentiate." You will notice there is no reference to the Bodies there. It seems to be intended to protect the public against anybody representing himself as having a higher qualification to practise than he actually possessed.

Mr. Justice Channell: The question seems to me whether the word "physician" is used in the Section as being something that I may call a practitioner of physic or something of that sort, whether it is used in that sense or whether it is used in the technical sense of a member or licentiate of some particular body.

Mr. Haldane: That, I think, is the point. I should venture to suggest to your lordship that the real meaning is a person legally qualified to practise physic.

Mr. Justice Channell: You say this gentleman was a physician in the ordinary popular and usual sense of the term of the English language, and that it must be taken to mean that in this Section and not taken to mean a special qualification of being connected with either the College of Physicians of England or of Ireland. There is one in Ireland if I recollect aright. That it does not mean connected with either of those Societies of Physicians, but it means simply that he is a physician in the popular sense.

Mr. Haldane: The whole of that 40th Section indeed is intended to protect the public from people holding themselves out as possessing qualifications which they do not possess.

Mr. Justice Lawrance: That is to say a man without any qualification at all.

Mr. Haldane: Yes, a man without any qualification at all might practise, but he cannot hold himself out or pretend to be any of those things.

Mr. Justice Lawrance: This section would clearly apply to that.

Mr. Haldane: Yes. Now what offence has this gentleman committed? He is legally qualified to practise medicine and midwifery. He has put himself on his plate (as it will be within your lordship's own general knowledge that nearly all the general practitioners in the country do) as "So-and-so, Physician and Surgeon." One sees it on nearly every plate in every village one goes through.

Mr. Justice Channell: They naturally would after the instructions from this Society—or a large number of them would.

Mr. Haldane: Yes, that is his instruction; and my contention is that that instruction puts the right construction upon the section. The contention of my learned friend, as I understand it, is this: that unless you are a Fellow or Licentiate of some College of Physicians—it does not mean only London; and I take it my learned friend's contention is this: that you break the provisions of the law if you call yourself "physician," because that means pretending that you are a Licentiate of one of these Colleges.

Mr. Justice Channell: The sole and entire question is what is the meaning of the word "physician" in this section?

Mr. Haldane: That is so, my lord.

Mr. Justice Channell: It begins with saying you shall not take or use certain specific titles which follow—seven specific things. You are not to take those specific titles. Then you are not to take any name implying registration under the Act, or any name implying a recognition by law of certain things. Then in the first part, is what he is charged with here—taking one of those specific titles, and the whole question is, what does it mean?

Mr. Haldane: Yes, what does "physician" mean?

Mr. Justice Channell: Does "physician" mean a legally qualified practitioner in physic, or a member of one of the societies giving the title of physician?

Mr. Haldane: Yes, that is what it is. There is one thing to which nothing corresponds in the schedule "general practitioner." There is no body which licenses general practitioners.

Mr. Justice Lawrance: "General practitioner," I think, applies to any particular registration. I think you must read those words in the middle of the section as applying—you are not "to use the name or title of a physician, Doctor of Medicine, Licentiate in Medicine," and so on, "or any name, title, addition, or description implying that he is registered." I think that applies to the whole of them. You divide it into three parts. You cut it off at the "or," after the word "apothecary."

Mr. Haldane: It may be that is the right construction.

Mr. Justice Lawrance: That is the ægis. You must not pretend to be registered as one thing if you are another.

Mr. Haldane: Yes, and the only thing is it comes back, as Mr. Justice Channell says, to the meaning of that word.

Mr. Justice Lawrance: Yes, whether a man in describing himself as a physician implies he is registered as a physician in the ordinary sense of the word—a Doctor of Medicine.

Mr. Haldane: I am pointing out the introduction of the words "general practitioner" there points to holding yourself out something in respect of which no licensing body gives a specific qualification.

Mr. Justice Lawrance: Quite so.

Mr. Justice Channell: It looks as if they were going, not exactly in order of merit—perhaps one ought not to say that—but beginning with more or less the highest things and getting down to general practitioners.

Mr. Haldane: They are trying to cover every name, according to my argument, by which a man might mislead the public.

Mr. Justice Channell: Yes.

Mr. Haldane: I quite agree if a man said "I am a Doctor of Medicine" when he is not, that would lead the public to think he had got the degree of Doctor of Medicine, but when you come to a man calling himself, say, a surgeon—that surely means a person who is qualified to practise surgery by some one body or another.

Mr. Justice Channell: Or a dozen.

Mr. Haldane: There are a score of bodies who may do it.

Mr. Justice Channell: That does not mean in connection with the College of Surgeons, at any rate since the Act of 1886.

Mr. Haldane. No, not since 1886.

Mr. Justice Channell: Since 1886 at any rate it cannot mean in connection with the College of Surgeons.

Mr. Haldane: No; for instance, the College of Physicians grants its licentiateships in surgery as well as medicine; it must do so.

Mr. Justice Channell: I suppose it must.

Mr. Haldane: It must; it is bound to do so; it also has the right to do so.

Mr. Justice Channell: Yes?

Mr. Muir Mackenzie: It always had the right.

Mr. Haldane: Therefore I think it would be very hard to run in a surgeon who was a member of the College of Physicians at the instance of the College of Surgeons, merely because he has described himself as a surgeon.

Mr. Muir Mackenzie: That would be impossible, because there has been judicial construction placed upon the old Acts constituting the Royal College of Physicians, and it was held that they had power to grant a licence in surgery independently of the Act of 1886.

Mr. Justice Channell: Do you mean that they granted specific licences in surgery to specific individuals, but membership did not necessarily involve such licence?

Mr. Muir Mackenzie: They had power, so it was held in an action tried before Lord Justice Smith, from the Acts of Henry VIII., to grant a licence in surgery as well as medicine.

Mr. Justice Channell: It would not follow from that that every member of that body had such a licence.

Mr. Justice Lawrance: Was that an action to recover fees? I thought it might be.

Mr. Muir Mackenzie: No, it was an action to declare the right of the College of Physicians.

Mr. Haldane: That only shows the term "surgeon" must have meant at that time a person qualified by a proper body to practise surgery.

Mr. Justice Channell: That seems to bring us round to the question of what has been said about what is the meaning of this section.

Mr. Haldane then referred to the case of the Queen *v.* Baker and argued that it was distinguishable from the present case.

[The facts of this case will be found to be fully dealt with in the arguments which follow Mr. Muir Mackenzie.]

The case of Davies *v.* Makuna, 29th Chancery Division, page 596, was then referred to.

Mr. Haldane continued his argument, reading the case, and saying: The important portion of it is, in the judgment of Lord Justice Cotton, on page 606. The question is whether attending patients and giving certificates of death was conducting the business of an apothecary without being qualified by the Apothecaries Company, or some other Society which had a power to grant a qualification to do it, and was contrary to the requirements of the Apothecaries Act. Lord Justice Cotton says: "The Act does not define the nature of an apothecary's employment, but dispensing, mixing medicine, giving medical advice, and attending the sick as medical adviser, must be considered acting as an apothecary." Therefore to hold yourself out as a physician and surgeon has been decided to be an infringement of the Apothecaries' Act from that point of view by the Court of Appeal. It is decided that the nature of the apothecary's business is a business in the nature of a physician, in common parlance acting as a physician and attending the sick and so on.

Mr. Justice Channell: There the man had got no qualification.

Mr. Haldane: He had no qualification.

Mr. Justice Channell: The whole difficulty here is whether "physician" means connected with one of these societies or whether it means legally authorised to practise in physic.

Mr. Haldane: Yes; I suggest, my lord, it is used for the same purpose and in the same sort of way as the expression "general practitioner" occurring later in the section.

Mr. Justice Channell: Some of these things—doctor of medicine, for instance—are admitted to be specific titles.

Mr. Haldane: Yes.

Mr. Justice Lawrance: I cannot see how a man calling himself a general practitioner can violate the Act.

Mr. Haldane: If he says he is a general practitioner.

Mr. Justice Lawrance: Everybody, as I understand you now, is entitled to practise in medicine, surgery, and midwifery.

Mr. Haldane: He may practise as much as he pleases, subject to certain disabilities, so long as he does not do anything which represents or implies he is qualified by law to do it.

Mr. Justice Lawrance: I know, but there is no such title as a general practitioner.

Mr. Haldane: Well, my lord, I suppose it was thought that is a sufficiently well-known description; one often hears it.

Mr. Justice Channell: You often hear a witness say so if he is asked his qualification, but it would not commend itself very specially to patients if you put it on a card.

Mr. Justice Lawrance: It means if he had no qualification at all.

Mr. Justice Channell: Yes.

Mr. Haldane: It would mean this—that if a M.D., we will say of Cambridge, were to come into the witness box and say, "I am a physician," he is committing an offence under the Act. "Physician" surely must mean a person qualified to practise medicine. After all, there is no right, even on the part of these learned societies to rob the Queen's English of certain phrases and appropriate them.

Mr. Justice Lawrance: It is the College of Physicians which grants the title M.D.

Mr. Haldane: They cannot grant the title of M.D.

Mr. Justice Lawrance: They do, do not they?

Mr. Haldane: No, they grant several things—Fellow of the College of Physicians. Member of the College of Physicians, and Licentiate of the College of Physicians.

Mr. Justice Channell: Is there any institution besides the universities which grants the specific title of Doctor of Medicine?

Mr. Haldane: I think not, my lord.

Mr. Justice Channell: I thought not.

Mr. Haldane: Where is there a word in the section to say a person calling himself a physician is to be taken as arrogating to himself something which belongs exclusively to half-a-dozen societies?

Mr. Justice Channell: That is the whole point. What sense is the word "physician" used in this Section XL?

Mr. Haldane: If your lordships decide that it is so, you would have to say the same of surgeons, that anybody calling himself a surgeon would be proceeded against at the instance of the General Medical Council or the College of Surgeons for falsely pretending to be a Member of the College of Surgeons. I venture to submit that the word is not used as a *vox signata*, and that it cannot be the property of any particular legal body, but is used in the ordinary current and dictionary acceptation of the term as a person entitled to practise physic. Physician means a person who is entitled to, and does, practise physic, and I submit that is the sense in which the term should be used here.

Mr. Justice Channell: Then you take the point as to the word "wilfully."

Mr. Haldane: Yes.

Mr. Justice Channell: Ellis *v.* Kelly seems to be a distinct authority, according to the headnote in your favour about that.

Mr. Haldane: Yes, I think it is; I should have mentioned that case. But I have said less about that.

Mr. Justice Channell: We understand why.

Mr. Haldane: Yes, but I take it, my lord, it is in my favour.

Mr. Muir Mackenzie: The one point on which I propose to give your lordships such assistance as I can is upon the point whether the licence of the Society of Apothecaries granted to a practitioner since the commencement of the Act of 1886 justifies the practitioner in styling himself "physician." That is the only point upon which I propose to give your lordships such assistance as I can.

Mr. Justice Channell: That is to say, you direct your attention to the "falsely" and not to the "wilfully."

Mr. Muir Mackenzie: Yes. I call your lordships' attention to what the state of the law in regard to the medical profession was before the Apothecaries Act of 1815, and of course before the Act of 1858. I think your lordships will see clearly that the distinction was perfectly marked between a physician as being a person whose right to practise physic, which was a term of art defined in the Act of Parliament, was a person entitled to practise physic by the licence of the Royal College of Physicians, whereas the apothecaries were at that time a subordinate body who were subordinate to the physicians.

Mr. Mackenzie then recited the Act of Henry VIII to show that the privileges of the Universities of Oxford and Cambridge in respect to granting medical qualifications had always been preserved. Then by 32 Henry VIII, Chapter 40, which is an Act in existence, it is provided as to the constitution of the Royal College of Physicians for their power to grant licences, and it also gives them power "to enter into the house or houses of all and every apothecary, now or at any time hereafter, using the mystery or craft of the apothecary within the said city only, to search, view, and see such apothecary wares, drugs, and stuffs as the said apothecaries, or any of them, have, or at any time hereafter shall have in their house or houses," and examine them, so that your lordships have, stopping there, the order of physicians and the order of apothecaries completely distinct. Then there was this section, "And forasmuch as the science of physic doth comprehend, include, and contain the knowledge of surgery as a special member and part of the same, therefore be it enacted that any of the same company or fellowship of physicians, being able, chosen, and admitted by the said president and fellowship of physicians, may from time to time, as well within the City of London as elsewhere within this realm, practise and exercise the said science of physic in all and every his members and parts, any Act, statute, or provision made to the contrary notwithstanding."

The charter of 15th Charles II of the Royal College of Physicians was then referred to as showing that the power granted in the charter of Henry VIII was confirmed by the first-mentioned charter.

Mr. Muir Mackenzie then said: In a case, which I only know a report of in Willcock's *Laws of the Medical Profession*, page 128, the case of the College of Physicians *v.* Harrison, which was an action in regard to a person practising as a physician, there is a passage in the judgment of Lord Tenterden which emphasises the distinction which then existed between physicians and apothecaries: "The single question now for consideration is, whether it has been made out that Dr. Harrison did exercise the faculty of physic during the period mentioned in the declaration. It appears that Dr. Harrison was in the habit of attending Miss A., and writing prescriptions, which were sent to some other person to make up; and Mr. Pickthorne, who is a surgeon and apothecary, tells you that he now attends Miss A., and he formerly made up prescriptions for her during the time that Dr. Harrison attended her; and he says that he made them up for internal remedies, and not external applications." Then, my lords, it goes on: "It is said in behalf of the defendant, that this does not prove the practising as a physician, but practising as a surgeon; and that a man may lawfully practise as a surgeon without incurring the penalty of this statute. That the statute is directed against those who exercise the faculty of physic and not against those who exercise the profession of surgery only, but if a man exercises both, then he is within the statute." That shows that clearly in Lord Tenterden's time there was a clear distinction between the three—the person who had the right to practise, and therefore was entitled to call himself a physician, the person who had a right to do as a surgeon under the charter and rules of the Royal College of Surgeons, and the person who had the right to do so under the powers conferred on the Society of Apothecaries.

Mr. Mackenzie then proceeded to trace the statutory growth of the Society of Apothecaries, showing that it began with their charter of the 13th of James I, which was confirmed by the Act of 55th of George III, c. 194, which Act was somewhat varied by a later statute of the 6th of George IV.

Now, my lords, in that position were matters when the Act of 1858, the Medical Act, was passed. The only section that I wish to call your lordships' attention specially to is Section XXXI, for which was afterwards substituted Section VI of the Act of 1886.

The learned counsel then proceeded to read Section XXXI of the Act of 1858, and continuing said: That I apprehend to confer upon a member of the Society of Apothecaries who was duly registered under the Act, and of course had obtained a certificate of the Society of Apothecaries, and had fulfilled the condition of registration and had been registered; it conferred upon him the right to practise according to his qualification as a Licentiate of Medicine or Surgery. Whether it conferred upon him the power to practise medicine and surgery is more obscure, but at any rate the Legislature conferred upon him the right certainly to practise either medicine or surgery; and if it conferred upon him the right to practise medicine and surgery, it conferred the right upon him to practice physic, because under the Act of Henry VIII the term "physic" includes medicine and surgery.

Mr. Justice Channell: Physic includes medicine and surgery?

Mr. Muir Mackenzie: Physic includes medicine and surgery. That being the legislation, come the three cases of Ellis *v.* Kelly, the Queen *v.* Baker, and Davies *v.* Makuna......... What Baron Bramwell said in Ellis *v.* Kelly, according to the report in the *Law Journal*, was: "The question depends on the construction of Section XL, which is intended to protect the public from being imposed upon by persons untruly representing themselves as legally qualified medical men, and it appears to me that, on the true construction of that section, if any person wilfully and falsely calls himself M.D. he will be liable to the penalty, though he may be a Member of the College of Surgeons or a Licentiate of the Apothecaries Society and registered as such.

Mr. Justice Channell: That must have been so at that time, must not it?

Mr. Muir Mackenzie: Yes.

Mr. Justice Channell: Because a person was not qualified to practise medicine and surgery. He was only qualified in medicine or surgery, or *vice versâ*. That is embodied in the Act in one.

Mr. Muir Mackenzie: Your lordship sees, taking the cases in chronological order, in Davies *v.* Makuna the distinction is between physician and surgeon.

Mr. Justice Channell: Before you pass from Ellis *v.* Kelly, does not it involve this also, that although there is that statement of Baron Bramwell yet the decision of the Court involved that a Doctor of Medicine was not confined to a Doctor of Medicine of one of various bodies mentioned in the schedule as being the qualifying authorities under that Act?

Mr. Muir Mackenzie: I think if your lordship takes that view of Ellis *v.* Kelly, I ought to call your lordship's attention to the latter case of Andrews *v.* Styrap.

Mr Justice Channell: But that is so in Ellis *v.* Kelly.

Mr. Muir Mackenzie: Yes, I think so.

Mr. Justice Channell: Because the Heidelberg degree of Doctor of Medicine prevented the man being convicted of falsely describing himself as a Doctor of Medicine.

Mr. Muir Mackenzie: Yes. Then I think your lordship should read that decision subject to the qualification in the later case of Andrews *v.* Styrap.

Mr. Justice Channell: Yes.

Mr. Muir Mackenzie: That is reported in 26 *Law Times*, new series, p. 704. There Andrews, the appellant, the person convicted, described himself in his billheads as M.D.; and it appeared he had obtained by payment of a sum of money a diploma of Doctor of Medicine from the University of Philadelphia in the United States, but that he had never been in America, or studied or passed for such degree, and he was not registered under the Medical Act. Then, my lords, he was prosecuted under Section XL, and he was fined. He appealed, and he put in as his evidence a diploma granted by the University of Philadelphia, but the conviction was confirmed. Mr. Mackenzie then quoted the case of Davies *v.* Makuna, which has been referred to above, saying: The upshot of that decision is that a person who has the qualification of the Society of Apothecaries and the certificate prescribed by the Act of 1815 has the privileges and monopoly given by that Act; and, my lords, that the business of an apothecary, though it may include some of the business of a physician and surgeon now, still is perfectly distinct. The practitioner who is registered as a Licentiate of the Society of Apothecaries is an apothecary who has a right to practise medicine, surgery, and midwifery. He is not a physician; and it may be that a physician who has his title from the Royal College of Physicians might not do everything that the apothecary can do, because here what the judges went upon was, they said, if there had not been the Apothecaries Act, and if you had had to rely for your legality upon the Medical Act alone, that would not have been sufficient to show that his agreement relating to the practise of medicine and surgery was sufficient to make it illegal, but it was clearly illegal, because it was an infringement of the Apothecaries Act, and he was infringing the privileges given to the persons who have the qualifications conferred by that Act. Therefore, my lords, that case shows that the distinction between the three orders has been kept alive.

Mr. Justice Channell: Why do you say, it shows that it has been kept alive? It shows that that Act has been kept alive, and it shows that although a person who is not registered under the Medical Act is by that Medical Act only disqualified from recovering his fees, yet that there may be and are other Acts, in some cases at any rate, which will prevent his practising. That is what it shows.

Mr. Muir Mackenzie: Yes, but it shows that what that Act prevents is, it prevents him from practising as an apothecary. The Act of 1815 does not prevent him practising as a surgeon.

Mr. Justice Channell: No, but it may be—I do not say it is so or not. The statute of Henry VIII or the subsequent ones may be in force, and do it, but this Medical Act as to registration is only for the purpose of recovering fees.

Mr. Muir Mackenzie: The legislation, if your lordship will take it from me, is, as regards surgeons, that there is no Act which prohibits a person practising as a surgeon.

Mr, Justice Channell: No.

Mr. Muir Mackenzie: In the case of the Queen *v.* Baker, 56 *Justice of the Peace*, there your lordship will see there are three summonses and three convictions. There is a summons for falsely using the title of doctor of medicine, and physician, and surgeon, He was convicted on all three, and fined, I think, £10 for the M.D., 40s. or 20s. (I forget which) for the physician, and 20s. for the surgeon. All three convictions were sought to be reviewed in the High Court. So that when my learned friend, Mr. Haldane, treats the observations of the Judges with respect to the title of physician and surgeon as *obiter*, it is not quite so, because the appeal was equally against the conviction for using the title of physician and the title of surgeon............ That decision was after the Act of 1858, which provided that the Licentiate of the Society of Apothecaries who was duly qualified might practise medicine or surgery or medicine and surgery according to his qualification. So here was a Licentiate of the Society of Apothecaries with the Society's licence, registered as a medical practitioner in respect of that licence in the *Medical Register*, and he had the privileges conferred by Section XXXI; but it was held—and distinctly held—he had not a right to call himself a physician or surgeon.

Mr. Justice Channell: All three convictions were upheld.

Mr. Muir Mackenzie: All three convictions were upheld. In relation to that there is one other fact in the case to make Lord Coleridge's judgment clear, and that is this: Mr. Smith, besides putting "M.D.," put "L.R.G.P." with a smudge over the thick part of the tail of the "G.," and it looked exactly like "L.R.C.P.," and he said he meant "Legally Registered General Practitioner."

Mr. Justice Channell: That may have been the ground upon which the conviction for calling himself a physician proceeded.

Mr. Muir Mackenzie: That explains the words of Lord Coleridge with reference to the words "general practitioner," but he was not prosecuted for that. Lord Coleridge says: "The convictions were made against a gentleman named Smith, whom in a great many instances had signed documents with his own proper name. and also put up his name on his house and surgery, placing after it letters 'M.D.,' and sometimes the words "physician and surgeon," and surgeon in some cases with the further addition of 'legally registered practitioner.'" That addition your lordships may take it from me, as I was in the case, was "L.R.G.P." Lord Coleridge goes on to say, "That is what he did." I only ask your lordship to bear in mind that, in deciding this case, Lord Coleridge had before him the three convictions, but there was no summons against him for being a general practitioner, because if that was true he was a legally registered general practitioner undoubtedly.

"Now the argument of Mr. Harris, driven to its conclusion, resulted in this: that a man registered under the Act as having one qualification may claim any other qualification mentioned in Section XL without incurring the penalty. Now, I must say myself I think that a perfectly monstrous contention. I think it is obvious that there are different qualifications and examinations for the different heads of medical practice, and that those to which a doctor of medicine must be subject, and upon which he must enter, are quite different from those required for an apothecary, and that calling yourself a physician because you are an apothecary is a fraud upon the public, and the very thing that this Act of Parliament was intended to prevent."

I think that your lordships would hold that that case is an authority for this; that the licence of the Society of Apothecaries before 1886 conferred the right to be registered, and that the Licentiate of the Society of Apothecaries, when registered, had the right to practise medicine or surgery or medicine and surgery, according to the qualification conferred by that licence, but that he had not the right to style himself in practice physician or surgeon. Whether that decision is right or wrong, that is what is held. Now, my lords, that being so, supposing for a moment that one is treating that decision as having been given in 1885, you come to the fact of the Act of 1886.

Mr. Justice Channell: It was after the Act of 1886?

Mr. Muir Mackenzie: The decision was; but the gentleman had been licensed in 1885, so of course he had not passed the examination.

Mr. Justice Channell: I follow; that is, a licence as an apothecary only?

Mr. Muir Mackenzie: As an apothecary only.

Mr. Justice Channell: But he had no surgical qualification at all?

Mr. Muir Mackenzie: No, except so far as the licence of the Apothecaries' Society went.

Mr. Justice Channell: The old licence.

Mr. Muir Mackenzie: Yes.

Mr. Justice Channell: Then the result seems to be this, that the conviction, so far as the summons for calling himself M.D. was concerned, was clearly right, and is distinctly affirmed by the Court, but the summons for calling himself a surgeon was also clearly right. Then there was the one for calling himself a physician, and as to that the Court upheld the decision of the magistrates; but I apprehend without having their attention called specifically to what our attention has been called to in this case, namely, that there may be a difference between those three summonses.

Mr. Muir Mackenzie: Surely not, my lord, between the physician and surgeon. What was decided was that the Licentiate of the Society of Apothecaries does have the right to practise medicine or surgery or medicine and surgery according to his qualifications. That is distinct under Section XXXI, but nevertheless he is not entitled to call himself physician or surgeon. That is the broad effect of it.

Mr. Justice Channell: The particular man in that case had no qualification in surgery at all.

Mr. Muir Mackenzie: He had as much a qualification in surgery as he had in medicine.

Mr. Justice Channell: If you distinguish medicine from the qualification of an apothecary, yes.

Mr. Muir Mackenzie: Yes, because under the Act of Henry VIII the right to practise medicine and surgery under the compound title of physic was conferred upon the Licentiates of the Royal College of Physicians.

Mr. Haldane: If he had the licence of the Bishop of the Diocese.

Mr. Justice Channell: Never mind about the Bishop.

Mr. Justice Lawrance: What was the form of the certificate under the Act of 1858?

Mr. Muir Mackenzie: That I do not know.

Mr. Justice Channell: What distinction do you suggest between the way in which an apothecary is entitled to practise medicine and the way in which a physician is entitled to practise medicine? They each of them may prescribe for their patients.

Mr. Muir Mackenzie: Yes.

Mr. Justice Channell: I mean in the way of drugs. I am not speaking of performing surgical operations, but something that one calls medicine—what is the distinction between those two?

Mr. Muir Mackenzie: Does your lordship mean what was the distinction before the Act of 1858?

Mr. Justice Channell: That is what you are relying on.

Mr. Muir Mackenzie: Yes, of course, my lord, I think the distinction between the two classes was very marked under the older legislation because the physicians as I pointed out to your lordship. had a sort of superintendence over the apothecaries. I might give your lordship the definition of the three classes that is given in the old work of *Willcock's Laws of the Medical Profession* at page 30. "The first class of legal practitioners in rank and legal pre-eminence is that of the physicians. They are by Statute 32 Henry VIII allowed to practise physic in all its branches, among which surgery is enumerated. The law, therefore, permits them both to prescribe and compound their medicines, and as well to perform as to superintend operations in surgery. These privileges are also reserved to them by the statutes and charters relating to the surgeons and the apothecaries." "Yet custom has more decidedly distinguished the classes of the profession, and assigned to each its peculiar avocations. The practice of the physician is universally understood as well by their College as by the public to be properly confined to the prescribing of medicine to be compounded by the apothecaries, and in so far superintending the proceedings of the surgeon as to aid his operations by prescribing what is necessary to the general health of the patient, and for the purpose of counteracting any internal disease. English physicians are of two classes: Physician of the College of London and graduates of Oxford and Cambridge." "The second class of medical practitioners is that of the surgeons. Their peculiar practice consists in the use of surgical instruments in all cases and in the cure of all outward diseases, whether by external application or by internal medicines. Several diseases which may sometimes be regarded as internal complaints have also been recognised by the Legislature by ancient usage, and by the charters granted to this body as within the scope of their practice." "The third class of medical practitioners is that of the apothecaries. Their proper practice consists in preparing with exactness, and dispensing, such medicines as may be directed for the sick by any physician lawfully licensed to practise physic by the President and commonalty of the faculty of physic in London, or by either of the two Universities of Oxford or Cambridge, and in applying or administering the same. They are also at liberty to administer medicine of their own authority, and without the advice of a physician. It is not usual, however, for them to prescribe medicine to be prepared and supplied by others, but though this is understood to be the peculiar privilege of the physicians, it might be very difficult to make out a case of violating the Statute of 14th Henry VIII. against an apothecary, by merely proving that he had written a prescription and received such fee as is usually paid to a physician, provided that it did not purport to be the prescription of a physician, and though no person is bound to prepare the medicine prescribed, I am not aware of any penalty incurred by compounding it."

Mr. Justice Channell: Does not that seem to say a physician is only higher in character because he will do both? That is what, putting the whole three together, it seems to me.

Mr. Muir Mackenzie: Except that I think your lordship will be satisfied they were distinct up to the time of the Act of 1858.

Mr. Justice Channell: Yes.

Mr. Muir Mackenzie: I will be able to give your lordships, before the case is over, the definition of Lord Holt of what a physician was.

Mr. Haldane: It is no use quoting anything earlier than the Act of 55 George III, because that altered the status of the apothecaries and defined the knowledge they have to possess.

Mr. Muir Mackenzie: There is just one other old case showing how the distinction between the three orders were emphasised of the Act of 1815, that is, the case of Blogg *v.* Pinkers, *Ry and Moody*, p. 125. It was an action on a promissory note payable to the plaintiff or order in consideration of the care and medical attendance of the maker. Chief Justice Best there says: "I will leave it to the jury to say whether the services for which this note was given were those of an apothecary. If the plaintiff was not a physician or surgeon, but acted in the character of an apothecary, he cannot recover upon this note without bringing himself within the provisions of the statute (that is, 55 George III, c. 194)." Mr. Muir Mackenzie then submitted that although the Act of 1815 undoubtedly enlarged the powers of the Apothecaries Society, yet it did not extend to the right of putting members of that Society on a complete level with that of physicians. He then called attention to the Apothecaries Amendment Act of 1874 which provided for the extension of the examining powers of the Apothecaries Society, pointing out that the Apothecaries Society were given power to combine with any more of the Colleges and bodies mentioned in the schedule of the Medical Act of 1858 for the purpose of holding examinations to confer their licence to practise. He then proceeded to deal with the Act of 1886, concluding this part of his arguments by saying that the Society of Apothecaries cannot confer their licence to practise now unless their candidate has passed a combined qualifying examinalion referred to in the Act.

Mr. Muir Mackenzie: In this case the Society of Apothecaries have instructed apparently (according to the evidence which is put in) their Licentiates that a licence of the Society gives them not only the right to call themselves a Licentiate of the Society of Apothecaries, but gives them the right to call themselves physician or surgeon.

Mr. Justice Channell: Well, that is a little ambiguous the instructions as set out in the case, is not it? I was going to ask you whether you quarrelled with that or only with the interpretation that this gentleman has put upon it? You will see that what it says is: he may call himself by any title or titles which he prefers to adopt denoting his right to practise medicine surgery and midwifery, provided that he does not directly or indirectly assume a title conferred by another licensing body or university. Is that incorrect? According to you, when he assumes the title of physician he does at least indirectly assume a title conferred by another licensing body.

Mr. Muir Mackenzie: Yes, my lord, that is to say the earlier part of the instruction says: "Can call himself by any title or titles which he prefers to adopt denoting his right to practise medicine, surgery, and midwifery."

Mr. Justice Channell: Yes, now why is not that right?

Mr. Muir Mackenzie: That, my lord, stopping there, would include the word "physician," because medicine and surgery is comprehended in the term "physician."

Mr. Justice Channell: Yes, it might; but then they protect themselves in the last words. It really is only begging the question. The whole question is, Does "physician" in this Act import connection with those societies or not? If it does not import connection with those societies, then this conviction is wrong and the direction of the Apothecaries' Society is right, is not it? On the other hand if it does import connection with one of those societies, and therefore this conviction is right, nevertheless these directions of the Apothecaries' Society may be all right, because their last clause may protect them.

Mr. Muir Mackenzie: Dealing with the first clause, I would suggest to your lordship that the true construction is that in the wide words "any title or titles which he prefers to adopt denoting his right to practise medicine, surgery, and midwifery," physician or surgeon would necessarily be included. The equation is physician, medicine, surgery, and midwifery: medicine and physician is the equation, and physician includes medicine and surgery.

Mr. Justice Channell: It is not raised as I understand on this particular summons before us; but do you contend that this particular gentleman was not justified in calling himself a surgeon, although he had a specific qualification in surgery?

Mr. Muir Mackenzie: I think, my lord, the view that I am arguing would extend to "surgeon" just the same as to "physician."

Mr. Justice Channell: If it would it is much more difficult to establish.

Mr. Muir Mackenzie: The question that I submit comes before your lordships is really in the present state of the authorities, whether your lordships can hold this case to be different from the case of the Queen *v.* Baker by reason of the fact that the Act of 1886 prescribed the qualifying examination.

Mr. Justice Channell: There is another difference between this case and the Queen *v.* Baker. The Queen *v.* Baker was not a case stated by the justices, but was a rule to bring up the convictions on *certiorari*, on the ground that the justices had no jurisdiction; and that explains some of the things that counsel there argued. It looked rather a curious argument in the first instance, but probably he was obliged to argue it in that way to support no jurisdiction of the magistrate.

Mr. Muir Mackenzie: I think your lordships will see that the argument broadly was that, being on the *Register*, the practitioner might call himself what he pleased.

Mr. Justice Channell: Yes; and he had to say that in order to show no jurisdiction. What Lord Coleridge says is that it is quite clear in his judgment that the justices had jurisdiction; and it really was quite clear.

Mr. Muir Mackenzie: Yes, my lord. I will just call your lordship's attention to the case of The Royal College of Physicians *v.* The General Medical Council, 62 *Law Journal*, Queen's Bench Division, p. 329. The head note is this: "The Royal College of Physicians of London is, and was at the passing of the Medical Act, 1886, a medical corporation qualified to grant independent diplomas in physic, including therein the practise of medicine, surgery, and midwifery. Section III of 32 Henry VIII, Chapter 40, contains a direct recognition that in 1540 the science of physic included the knowledge of surgery, and embraced the general art of healing, whether by drugs or surgery." Now, my lords, to conclude. What I suggest to your lordships is the difficulty which your lordships have to solve is that it was held under the state of things which existed under the Act of 1858, where the Licentiate of the Society of Apothecaries had the right conferred upon him to practise in any part of Her Majesty's dominions medicine or surgery, and medicine and surgery, that that did not give him the right to call himself by the title which was peculiar to the title of another body, and the question is whether the fact that the Licentiate of the Society of Apothecaries now has to pass that qualifying examination, and that the Legislature has re-enacted in somewhat different words his right to practise medicine, surgery, and midwifery enlarges the right to call himself by a title which he could not properly have called himself by before the Act of 1886. Is there anything in the Act of 1886 which signifies an intention to enlarge it? It must be taken, I suppose, that the Legislature knew the interpretation of the law which would be put upon it.

Mr. Justice Channell: But how does it do that? I do not understand how it alters it. The point is whether physician in the Act of 1858 meant practitioner in medicine or something of that sort, some general term of that sort, or whether it meant a person connected with one of the various Societies of Physicians or Colleges of Physicians which are mentioned in this Act as being entitled to give qualifications; that is the point we have to get at.

Mr. Muir Mackenzie: That is the point.

Mr. Justice Channell: At one time that may have been necessarily untrue of a man who was simply a licentiate of the Society of Apothecaries. It would necessarily be untrue in any sense of it between 1858 and 1886. Now he has got a further qualification to practise by reason of his having got that licence. The question is whether it is now untrue; that is how it stands. It does not guide you as to which of the meanings of "physician" is the true meaning of the Act of 1858.

Mr. Muir Mackenzie: As to the decision in Queen *v.* Baker it is for your lordships to say whether this is the true effect of that decision, but apparently the effect of that decision is that the Licentiate of the Society of Apothecaries had not the right to call himself "physician," that is to say, the fact that he had the licence of the Apothecaries Society.

Mr. Justice Channell: That licence did not then make his description of himself as a physician necessarily true.

Mr. Muir Mackenzie: No.

Mr. Justice Channell: Because they held that the magistrates had jurisdiction to entertain the question whether it was true or untrue, and that they could not set aside their conviction or bring it up on *certiorari* for no jurisdiction.

Mr. Muir Mackenzie: That was the licence which gave him the right to practise medicine and surgery.

Mr. Justice Channell: No, not until later, because he was licensed under the Act of 1858.

Mr. Muir Mackenzie: He was licensed to practise medicine or surgery or medicine and surgery as the case may be. He had the right to practise. The words are rather peculiar: "Every person registered under this Act shall be entitled to call himself —"

Mr. Justice Channell: But what was his qualification in fact?

Mr. Muir Mackenzie: Licentiate of the Society of Apothecaries. Now, my lord, read that in.

Mr. Justice Channell: But that did not authorise surgery at that time, did it? I thought that was the very point of the thing. They did not at that time examine in surgery, or authorise him to practise surgery.

Mr. Muir Mackenzie: That I do not know.

Mr. Justice Channell: I thought that was the very difference between what was done there—the very point. These directions from the President of the Society of Apothecaries at present begin "The L.S.A., 1886," meaning, I think, anybody who has got that licence in or since 1886.

Mr. Muir Mackenzie: Yes.

Mr. Justice Channell: And the ones in 1885 were less general.

Mr. Muir Mackenzie: Yes. Then, my lord, the question is whether the effect of the Queen *v.* Baker, assuming it to be as your lordship puts it, was to say every person registered under this Act, that is to say, a Licentiate of the Society of Apothecaries registered under this Act, "shall be entitled, according to the licence of the Society of Apothecaries, to practise medicine in any part of Her Majesty's dominions, and to demand and recover." Pausing there, that was held in the case of the Queen *v.* Baker not to entitle the licentiate to call himself a physician. Now the Act of 1886 says that the licentiate of the Society of Apothecaries (reading the words in the same way), "on and after the appointed day, a registered Licentiate of the Society of Apothecaries shall be entitled to practise medicine, surgery, and midwifery in the United Kingdom, and to recover in due course of law." That is the problem your lordships have to solve, namely, does that entitle him to call himself a physician and make a distinction from the case of the Queen *v.* Baker.

Mr. Haldane, in replying, was distinguishing the case from the Queen *v.* Baker, when

Mr. Justice Lawrance interposed with the remark: The only licence that he, the appellant, had got was practically one of the Apothecaries' Society, I suppose?

Mr. Haldane: Yes.

Mr. Justice Lawrance: I do not know whether the form of licence was changed.

Mr. Haldane: It was after the Act of 1886.

Mr. Justice Channell: It is said in the case (Queen *v.* Baker) that he was licensed before 1885, and we were told that—

Mr. Muir Mackenzie: The licence was granted in 1885.

Mr. Justice Channell: Therefore it was the old licence and not the new.

Mr. Haldane: It was the old licence. If your lordships will look at Subsection 2 of Section III, it says: "The standard of proficiency required from candidates at the said qualifying examinations shall be such as sufficiently to guarantee the possession of the knowledge and skill requisite for the efficient practice of medicine, surgery, and midwifery."

Mr. Justice Lawrance: That, I understand, is the form of the three orders—physicians, surgeons, apothecaries.

Mr. Haldane: All exactly the same.

Mr. Justice Lawrance: It is clear what the objects were. It was done in order that persons might have general knowledge and act as general practitioners.

Mr. Haldane: That was not true, then, and it may not have been true even of medicine at the time from anything that appears on the documents. I do not say it was not.

Mr. Justice Lawrance: I do not know what the rights of an apothecary were. We need not inquire now.

Mr. Haldane: Now we have it what he is qualified to do, and the statute says he may practise according to his qualifications. It is quite clear what the point before Lord Coleridge was so far as to give a decision.

Mr, Justice Lawrance: As far as that part of the case goes it clear the question now resolves itself into this, as it has been put several times by my brother Channell—namely, whether a person who has a certificate from the Society of Apothecaries may describe himself as a surgeon or physician, or whether he comes under Section XL by doing so—whether he directly or indirectly assumes a title conferred by another licensing body.

Mr. Haldane: Yes. Now, my learned friend's argument goes to this: that all these titles—physician and surgeon and so on—in Section XL are appropriated by the Legislature to be the special property of one or other of the qualifying bodies.

Mr. Justice Channell: They are used in this section as denoting licences.

Mr. Haldane: That is my friend's argument. What is the position of the wretched apothecary who wishes to practise, as he is entitled to do, as a surgeon? He cannot call himself a surgeon, because, according to my learned friend, that means he is a Member of the Royal College of Surgeons.

Mr. Justice Channell: I think he can call himself surgeon specially licensed to practise surgery.

Mr. Haldane: What else can he do?

Mr. Justice Channell: He may use the actual words here, "Licentiate in Medicine and Surgery."

Mr. Justice Lawrance: Of course if a man wanted to do what is right, it is perfectly clear what he ought to do.

Mr. Justice Channell: What is that?

Mr. Justice Lawrance: Call himself Licentiate of the Society of Apothecaries. That would thoroughly describe him. I am not putting that as against you. I say if you want to know what he may call himself, that is what he ought to call himself.

Mr Haldane: It cannot be meant to make a present of the Queen's English, to make a present of words which are unique (for I know no word equivalent to surgeon), to the College of Surgeons or some other body who may henceforth say, "This is our trade name; let no one come and infringe it."

Mr. Justice Channell: "Surgeon" may be a general word, and "Physician" may be a specific word.

Mr. Haldane: It might be, but my learned friend's argument puts them in the same category.

Mr. Justice Channell: Have you got any dictionary meanings of that word "physician?"

The following definitions were then given by Mr. Haldane: *Webster's Dictionary*—"Physic," "the art of healing diseases, the theory or practice of medicine;" "Physician," "a person skilled in physic or the art of healing, one whose profession is to prescribe remedies for diseases." *Century Dictionary*—"Physician," "a natural philosopher." This is also the meaning of the French word "*physicien*," from which the English word "physician" is derived. "Specifically a person licensed by some competent authority, such as a medical college, to treat diseases."

Mr. Muir Mackenzie, at the end of Mr. Haldane's reply, referred the Court to the case of the College of Physicians against Rose in 3rd Salkeld, page 17, and 1st Maughan, page 44, in which case the Court said it was "unanimously agreed that practising of physic within this statute"—that is Henry VIII—"consists (1) in judging of the disease and its nature from the constitution of the patient and many other circumstances; (2) in judging of the fittest and properest remedy for the disease; (3) in directing or ordering the application of the remedy to the disease, and that the proper business of an apothecary is to make and compound or prepare the prescriptions of the doctor, pursuant to his directions. And it was agreed that the defendant taking upon himself to send physic to a patient as proper for his distemper without taking aught for his pains is plainly a taking upon himself to judge of the disease and fitness of remedy, as also the executive or directing part."

The judgments delivered by Mr. Justice Lawrance and Mr. Justice Channell, and the case stated by the magistrates, will be found fully reported in the BRITISH MEDICAL JOURNAL of January 28th, p. 233.

THE LONDON WATER SUPPLY.

THE Royal Commission appointed in May, 1897, to inquire into the water supply within the limits of the metropolitan water companies, has presented the first instalment of its report. The original reference was under three heads: First, they were instructed to inquire whether, on financial grounds or those of better supply, it was to the interests of the consumers that the several undertakings of the companies should be acquired by one or by several authorities, and to what extent severance of works, sources of supply, etc., are practicable and desirable. Secondly, they were to report (if the present companies were to continue) what control should be exercised over them by local or other authorities. Thirdly, they were to find out whether it was practicable to connect any two or more of the various systems of supply, by whom such cost of connection should be borne, and what legal powers might be required for the purpose.

The last of these three references, involving a matter patently proved last year to be one of urgency, the Commissioners have, at the request of the President of the Local Government Board, dealt with in their present "First Report."

It is well known that the East London Water Company ran short last autumn. This company derives nearly a third of its supply from the Lee below the intake of the New River Company, or from wells in the Lee Valley, and about two-thirds from the Thames at Sunbury or springs in the gravel beds near by. Their storage reservoirs at Walthamstow, which hold 1,200 million gallons, were full on June 20th. On August 22nd they contained only 308 million, and the directors of the company "restricted the daily supply, which had previously been constant, to two periods of three hours each. The supply was continued in this manner until September 3rd, when a further restriction was enforced by which the daily supply was limited to two periods of two hours each." This state of things continued till November 23rd, and from that time the periods of supply were gradually extended till a constant supply was re-established on December 11th. Even this meagre supply during the dry months was only maintained by borrowing from other companies, during the four months of July, August, September, and October, just short of 792 million gallons, or about one-sixth of the sparing allowance granted to the East End consumer. The New River Company was the chief stay of the company, and contributed during September and October upwards of 6 million gallons a day. This they did chiefly by refraining from drawing from the Lee, and allowing water to which they were entitled to flow past their intake and into that of the East London Company. Their own supply they kept up by extra pumping from their wells in the chalk. The Southwark and Vauxhall Company and the Kent Company helped during the two months named with rather over $3\frac{1}{2}$ millions a day. The East End water famine, therefore, sufficiently demonstrated the desirability of connections between the supplies of the eight companies, and the Commissioners had before them three schemes for effecting this purpose, and recommend generally that power to effect connections should be obtained by the companies; that the actual intercommunications to be made be not definitively fixed by the Legislature, but that the powers be granted generally, subject to the approval of a public department, such as the Local Government Board. They suggest that the cost be defrayed by issue of debenture bonds, interest on which should be paid when the communications are not in use in proportion to revenue, and when in use by the parties profiting by the convenience; an arbitrator being agreed upon by the companies, or, if necessary, appointed by Government. They recommend, also, that the Bill embodying the necessary powers should enable the several companies to sell to one another when necessity arises, and that the restriction of a maximum beyond which no water is to be drawn from the Thames in any one day by a given company should be modified, so as, while retaining the average, say, for six months, to allow a larger quantity to be withdrawn, to fill a storage reservoir for instance, in time of flood water.

Some of the most important questions, however, so far as the future of the London water supply is concerned, are entirely passed over, or only casually alluded to, in this first portion of the Commissioners' report. The very small margins between the maximum amount certain companies have a right to draw, and the actual maximums distributed to their customers last year is made mention of. The Grand Junction Company for instance, has a statutory right to abstract $24\frac{1}{2}$ million gallons daily from the Thames. The daily amount taken averaged over 21 millions from June to October, 1898, and rose as high as $23\frac{1}{2}$ millions. It is evident, therefore, this company has little to spare for a friend in distress. The Kent Company, deriving its water from wells in the chalk, is limited by its present plant to some 25 million gallons daily; its maximum last year was about 21 million, and usually it could spare a couple of millions. Having little or no storage, a breakdown of a pumping station or two may, however, at any time make it a borrower rather than a lender, a position it came very near to occupying last year. The Lambeth Company could at present spare nothing; its statutory limit of abstraction is $24\frac{1}{2}$ million gallons; its average daily supply in 1897 was more than $23\frac{1}{2}$ and the daily rate of supply in September, 1898, a little short of 32 millions. The West Middlesex Company, with the same statutory limit, could at present spare $1\frac{1}{2}$ million gallons, but demands upon its resources are increasing. The Chelsea Company does not use all its powers. It has at present rights to 22 million gallons daily, but only plant to pump and filter 17. From this it might have spared, perhaps, 2 to 3 million gallons, but to do more would have had to increase its filters, pumps, and water mains. In recommending the alteration of the maximum from a daily maximum to an average, the Commissioners say nothing about the risks attending the taking of flood waters from a river like the Thames, nor do they make any estimate of how far the present maximums might be safely exceeded in times of drought. In fact the report, though interesting from the valuable facts referred to in it, amounts on the whole to very little more than a finding, by the distinguished and accomplished and "dearly beloved" Commissioners some nineteen months after their appointment, that it would be a very good thing if, in the meantime, the eight London companies, who all but monopolise the supplying of water within the metropolis, might be allowed to help one another in times of difficulty, whether due to the breakdown of filters or of pumps, or in the still more serious conditions of a dry season, such as the autumn of 1898. The larger question of where the increasing millions of London are to look for water in the future has yet to be considered, and the important matter of the control of the water supply by the sanitary authorities of London is left untouched.

THE NEW VACCINATION ACT IN OPERATION.

THE TROUBLES OF A PUBLIC VACCINATOR.

A PUBLIC VACCINATOR FOR THE LAST 29 YEARS writes: I have to-day inspected my first case of primary vaccination under the amended regulations. On January 19th I drove 4 miles by high road, and 1 mile over by-road and meadow, to a cottage in the middle of a large wood. I found a kettle on the fire, and a basin and clean towel were supplied. Having started a spirit lamp with a small saucepan, both of which I took with me, I proceeded to wash my hands with carbolic soap, and water from the kettle. By this time the water in my saucepan was boiling, and having sterilised my lancet with it, I washed the child's arm and dried it with carbolised wool. I then scarified the arm in four places, and having wiped off the blood with carbolised wool, I blew, with a patent blower, the contents of a tube of glycerinated calf lymph supplied by the Local Government Board, on to the four places, and worked it well in with the point of a lancet. After waiting about 10 or 15 minutes the lymph was sufficiently dry to be covered with a layer of sterilised lint, which I fastened on with a strip of Leslie's plaster. Over this I placed a pad of carbolised wool enclosed in carbolised gauze, and fastened this also with three strips of plaster, and I warned the mother that the pad should not be removed until I called again. I carefully timed the operation, which took up just 35 minutes.

To-day the frost rendered the ruts on the by-road unsafe for driving, so I had to ride on horseback. I found that all four places had taken well, and had probably matured on the previous day, as the areolæ were becoming dusky, but the arm was bare. The mother said she had taken off the pad because when the vesicles began to develop it irritated the child. I did not see how I could efficiently cover the arm again in its inflamed condition, and I knew that any covering would be taken off as soon as I was out of sight, so I simply left some carbolised wool, with directions that small portions should be placed on the vesicles when they began to discharge. Meanwhile, my horse was protesting against the cold by doing her best to pull down the fence to which I had fastened her.

I have just received a list of 9 cases which I have to attend to within fourteen days. The nearest is a mile and a-half from my house and across three fields, and four others are more than six miles away in different directions.

I have come to the conclusion that I am quite unable to comply with several of the amended regulations, and that a guinea for each case would not properly remunerate me for the work I have to undertake.

THE LYMPH OF THE NATIONAL VACCINE ESTABLISHMENT.

P. V. writes: During the last fortnight I vaccinated 10 cases (primary) with the vaccine sent me from the National Vaccine Establishment. I scarified with lancet, and rubbed lymph well into the four places, with the following results:

In 2 cases there was (on the ninth day) no effect.
In 4 cases only 1 fair-sized vesicle.
In 3 cases only 2 fair-sized vesicles.
In 1 case only 3 fair-sized vesicles.

This result is highly unsatisfactory; it entails on me much increased labour and loss of valuable time, for which I shall not be remunerated. It makes vaccination unpopular, for the parents object strongly to their children undergoing a second vaccination.

I have been a public vaccinator for upwards of twenty years, and have received the grant five or six times Failure or partial failure has been of the very rarest occurrence, except when I have used lymph sent me from the National Vaccine Establishment. This fact proves that the failures cannot be attributable to my want of care or skill. Now that vaccination has to be performed at the homes of the children (in many cases several miles being travelled), it will be rather hard upon the public vaccinators if the vaccine supplied by Government cannot be relied upon to act efficiently.

Some year or two back I wrote to the Secretary of the National Vaccine Establishment to complain of my want of success with lymph supplied, and the answer I got was to the effect "that the Government guaranteed the purity of the lymph sent out, but it could not guarantee it to be effective." Does the purification of the vaccine lymph destroy its efficiency? I never recollect a failure in arm-to-arm vaccination.

PUBLIC VACCINATOR'S DEPUTY.

HUMAN LYMPH asks the following questions: (1) Can a deputy medical officer legally do the work (that is, vaccinate and attend paupers) if the appointed medical officer by the guardians is at home and not on the sick list?

(2) Can general practitioners (not public vaccinators) vaccinate with human or calf lymph any of their patients' children if they so desire?

(1) A deputy medical officer is only supposed to act for his principal during his absence from home or when incapacitated from any unavoidable cause. No one can properly act as deputy for a public vaccinator unless he has been authorised to do so by proper endorsement on the public vaccinator's written or printed contract, and this sanctioned by the Local Government Board.

(2) A private practitioner can vaccinate with any lymph he thinks proper to use on his own responsibility.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1899.

MEETINGS of the Council will be held on April 12th, July 12th, and October 11th, 1899. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 23rd, June 22nd, and September 21st, 1899.

ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

LANCASHIRE AND CHESHIRE BRANCH.—An intermediate meeting of this Branch will be held in Liverpool on Tuesday, February 28th. Gentlemen wishing to read papers, show cases, or make any communication, should communicate at once with the Honorary Secretary, Dr. JAMES BARR, 72, Rodney Street, Liverpool.

DUBLIN BRANCH.—The annual meeting of the Dublin Branch will be held in the Royal College of Physicians, Kildare Street, on Monday, February 6th, at 5 P.M. The officers and Council for the ensuing year will be elected by ballot, and any other necessary business transacted. Mr. F. T. Heuston, F.R.C.S., President-elect, will deliver an address on The Position of Poor-law Medical Officers in Ireland. Dr. Grimshaw, C.B., will make a statement on the Excessive Prevalence of Tuberculosis in the United Kingdom, and especially in Ireland, and a resolution will be moved thereon. The annual dinner will take place on the same evening in the College Hall at 7.30 P.M.—JAMES CRAIG, M.D., Honorary Secretary, 35, York Street, Dublin.

YORKSHIRE BRANCH.

A meeting of this Branch was held at York on January 25th, Dr. **Dolan**, President, in the chair. Thirty-two members were present.

New Members.—The following gentlemen were unanimously elected members of the Association and Branch: Drs. and Messrs. E. Jenkins, J. Shaw, R. Gordon, J. Furniss, J. Powell; and of the Branch: F. Beatham and R. Crowley.

Communications.—Dr. **Hind** (Harrogate) read a paper on the Use of Cocaine in Modern Surgery, and recorded numerous cases in his own experience.—Mr. **Jalland** (York) read notes on a case of Injury to the Brain, in which local meningitis had followed a severe blow on the head. The specimen, a most interesting one, was shown. Mr. Jalland also exhibited a Skiagraph of an Excision of the Knee, which very clearly showed all details of the operation, and also the screws which had been inserted for fixation.—Dr. **Campbell** (Bradford) spoke on the Use of Antipyrin, Antifebrin, and Phenacetin in the Treatment of Medical Cases. He drew attention to the great danger of the indiscriminate use of these drugs, which should only be employed in carefully selected cases. Their chief use, apart from anodynes, was in some cases of rheumatic fever.

Exhibit.—After the meeting Dr. **Anderson** showed some most interesting lantern slides of Volcanoes.

Dinner.—Seventeen members dined at the Station Hotel after the meeting.

Vote of Thanks.—A vote of thanks was passed to Dr. Turner, the Local Secretary, for the trouble he had taken in organising the meeting and arranging the dinner.

METROPOLITAN COUNTIES BRANCH: SOUTH-EASTERN DISTRICT.

A meeting of this District was held on January 26th at the Lambeth Infirmary; Dr. R. **Percy Smith**, Vice-President of the District, in the Chair.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Demonstration of Cases.—Dr. **Turney** gave a demonstration on the following cases in the wards of the Infirmary: 1. A Man, aged 27, suffering with Spastic Paraplegia. He dates his illness from an accident in 1896. He fell on his back from a van, but though laid up for a time he rapidly recovered, and for three months after the accident was able to do his work. He then, while carrying a heavy weight, lost power in his legs almost suddenly. The paralysis, however, was not complete, and he was able to walk, though with difficulty, until the commencement of this year. He was now almost completely paralysed as to his legs, and there was also some weakness of his left arm. The legs were in the ordinary spastic condition, and the sphincters were affected. There was no ascertainable loss of sensation. In the lower dorsal region there was a marked angular curvature of spine, and also some lateral displacement of the twelfth dorsal vertebra. There was neither pain nor tenderness. The temperature had been raised ever since the patient came under observation, rising to about 103°, and falling to somewhere about normal during some part of every twenty-four hours. There were no physical signs in the chest, and no indications of the presence of pus in either abdomen or back. As regards the condition of the back, the diagnosis seemed to lie between tuberculous caries and a simple rarefactive osteitis set up by the accident two and a-half years ago, the former alternative being the more probable. This theory would account for the condition of the legs, but not, of course, for the paresis of the arm, which was left unexplained. To account for the fever, psoas abscess or miliary tubercle might be suggested, but there were no definite indications of either. (2) A man aged 34, whose illness began in 1892 with pains in the head and loss of control over the movements of the legs. There was no history of fits, and speech was not affected. Nothing more could be ascertained about the history. His condition was one of extreme mental apathy, but not unconsciousness. All the muscles of the body were wasted, including those of the face; in the muscles of the legs no contraction could be obtained with the faradic current. The reflexes, superficial and deep, were present, and in fact increased. The tongue could be protruded beyond the teeth, and until the past few days there had been no difficulty in swallowing. There were no muscular tremors. The diagnosis was very doubtful. Dementia paralytica could be excluded in consequence of the absence of mental symptoms until the last stage of the disease. Amyotrophic lateral sclerosis was a possibility, but on the whole the probabilities seemed to be in favour of a slow-growing cerebral tumour. (3) A case of general paralysis of the tabetic type, the knee-jerks being absent and ataxia a marked symptom. The presence of Baginsky's toe phenomenon proved the implication of the pyramidal tract in addition to that of the posterior columns, and quite apart from other symptoms, showed the case to be more than simple tabes.

Votes of Thanks.—Votes of thanks were passed to Dr. Turney for his interesting demonstration, and to Dr. Quarry, the Medical Superintendent, for having provided the cases and afforded facilities for the meeting.

SOUTHERN BRANCH: ISLE OF WIGHT DISTRICT.

The 70th quarterly meeting of the Isle of Wight District was held on January 20th, 1899, at Sandown, Dr. **Groves**, President, in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

The Diagnosis of Typhoid Fever.—Dr. **Brereton** then continued his remarks, postponed from last meeting, on the Diagnosis of Typhoid, dwelling more particularly on the question as to what period of time could elapse from the commencement of the illness, when it could be said that it had not been typhoid. This led to a very lengthy discussion, and in the result, the following resolution was adopted, *nem. con.:*

> That it is not possible to say with certainty, after the lapse of three to four weeks from the appearance of pathognomonic symptoms, that a patient has not had typhoid.

Operation for Bronchocele.—Mr. A. **Banks** related the case of a lady's maid, aged 40, who had suffered from bilateral bronchocele for twenty-five years. The tumour on the right side extended from within an inch of the angle of the jaw above and overlapped the upper end of the sternum below for an inch and a-half. The swelling on the left side was somewhat smaller. On February 12th, 1896, she had an alarming attack of suffocating dyspnœa with tracheal stridor whilst stooping over a bath. Two days later he removed the right lobe with the isthmus. The operation lasted an hour, and no difficulty of any importance was met with. The patient made an uneventful recovery, and the left lobe rapidly diminished in size, till at the end of twelve months the natural outline of the neck was restored.

Cases.—Mr. **Banks** showed: (1) A Phosphatic Calculus weighing 2½ ounces successfully removed by lateral lithotomy from a patient aged 78. The patient had a tight stricture, and five years previously a uric acid calculus was removed by suprapubic lithotomy. (2) An Ovary, the seat of a chronic abscess, successfully removed by abdominal section from a patient, aged 33, who had for many years suffered from chronic menorrhagia and pelvic pain.

Annual Meeting.—The next (annual) meeting will be held at Ventnor on the third Friday in April, 1899.

Dinner.—After the meeting the President, and others, dined together.

BORDER COUNTIES BRANCH.

A meeting of the Border Counties Branch was held at Penrith on January 27th. The President (Dr. **Muriel**, Whitehaven) occupied the chair, and sixteen members and two visitors were present.

Confirmation of Minutes.—The minutes of the last meeting were read and approved.

New Members.—Dr. D. C. Edington, Penrith, already a member of the Association, was elected a member of the Border Counties Branch. The following gentlemen were elected members of the British Medical Association and of the Border Counties Branch: Dr. Robert Gibson, Carlisle; Dr. J. W. Leitch, Carlisle, and Dr. James Smith, Whitehaven.

Coroners' Inquiries and Medical Evidence.—Dr. **Thomson** (Penrith) read a letter from Dr. Biden referring to two recent cases in Penrith in which coroners' inquests had been held and verdicts returned without hearing any medical evidence. A discussion followed, in which various members stated that their experience with regard to inquests had been similar to that of Dr. Biden. Ultimately it was agreed to allow the matter to drop in the meantime.

Communications.—Dr. Thomson showed a case in which twelve months ago right hemiplegia had followed an injury over the right temple; he trephined over the middle meningeal artery in the left side. The man made an excellent recovery.—Dr. Thomson read notes on two cases of Hyperemesis Gravidarum. In the first case the vomiting was persistent and excessive and lasted till the eighth month, though he prescribed nearly all the drugs in the *Pharmacopœia*. One day the patient suddenly asked for a chop, which was given, and after that the pregnancy progressed normally. In the second case the vomiting was so severe and continuous that artificial labour had to be induced. He performed rapid dilatation, cleared out the uterus, and swabbed its interior with pure carbolic acid. A discussion followed, in which the President and Drs. Edington, Altham, Graham, Hamilton, Ogilvy-Ramsay, Maclaren, and Crerar took part. Dr. Thomson replied.—Dr. Crerar (Maryport) read notes on a case of Abscess of the Lung. The patient was a boy who was seen a month after an attack of pneumonia. He was then extremely emaciated. Dr. Crerar first made exploratory punctures and drew off some pus. He then excised portions of several ribs, passed a needle into the lung in several directions till he struck a collection of pus, which he then incised. The boy made an excellent recovery. The President and Drs. Maclaren, Thomson, and Ogilvy-Ramsay spoke, and Dr. Crerar replied. —Dr. Graham (Carlisle) read a paper on the Tolerance of Creosote in Phthisis Pulmonalis. He gave an account of two cases of complete recovery from phthisis pulmonalis, where, in addition to the general principles of treatment, 245 and 265 drops respectively of creosote were given each day without toxic symptoms, and these doses were tolerated for months. He mentioned a third case of acute phthisis now under treatment, in which the dose was now nearly 200 drops, and was being rapidly increased with vast improvement. He was of opinion that creosote exhibited in very large doses in subjects able to tolerate it appeared to inhibit the action of tubercle bacilli. A discussion followed, in which the President and Drs. T. M. Wilson, Maclaren, Lockie, Altham, Knight, and Edington took part. Dr. Graham replied.—Dr. Altham (Penrith) read a paper on Pregnancy complicated by Parovarian Cyst, with successful consecutive Treatment. In this case, owing to the difficulty in determining the period of utero-gestation and arriving at a diagnosis of the complication, labour was artificially induced, and the patient delivered of a child apparently at about the eighth month. In spite of this the patient was not much relieved, and the cyst was aspirated, when 8½ gallons of fluid were removed. The cyst rapidly refilled, and was removed seven weeks later; the ovary, which was enlarged and cystic, was also taken away. The operation was prolonged owing to numerous adhesions, but the patient made a good recovery, is now in robust health, and has been so for the last two years. The President and Drs. Thomson, Crerar, and Edington spoke, and Dr. Altham replied.

Dinner.—After the meeting the members dined together in the George Hotel, Penrith.

EAST YORK AND NORTH LINCOLN BRANCH.

The first winter meeting of this Branch was held on Friday, October 21st, 1898. The chair was taken by Dr. Harrison (President), and thirty-one members were present.

New Member.—Mr. J. Nelson (Hull) was elected a member.

Cases.—The following were shown: Dr. Daly: Case of Thoracic Tumour.—Dr. Elliott: Case of Ruptured Semilunar Valve (?).

Specimens.—The following were exhibited: Mr. Palmer: (1) Fusiform Aneurysms of Ascending and Descending Aorta; (2) Sacculated Aneurysm of Ascending Aorta; (3) Fusiform Aneurysm of Ascending Aorta.—Dr. Hainworth: (1) Epithelioma of Hand; (2) Fibromyoma of Uterus.—Dr. Lowson: (1) Dermoid Cysts of both Ovaries; (2) Gall stones removed by cholecystotomy.—Dr. Waters: (1) Fibromyomata of Uterus; (2) Dermoid Cyst of Ovary; (3) Dermoid Cyst from over mastoid process; (4) Fatty Tumour from Larynx.

Paper.—Dr. Lowson read a paper on Puerperal Fever.

The second winter meeting was held on Friday, November 18th, 1898. The President (Dr. Harrison) occupied the chair, and twenty-six members were present.

New Members.—Surgeon-General R. Grieve, C.M.G., M.D. Glasg. (Elloughton), J. Divine, M.B., C.M.Glasg. (Hull), Miss M. N. Sharman, M.B.Lond. (Hull), were elected members.

Cases.—The following were shown: Dr. Harrison: (1) Congenital Enlargement of Legs; (2) Intrauterine Amputation of Fingers.—Mr. Francis: Sclerodermia (band and patch type), limited to left side.—Dr. Lowson: Case of Removal of Half the Thyroid Gland.—Mr. Palmer: Cases of Congenital Absence of Terminal Phalanges of Hand in father and daughter.

Specimens.—The following were exhibited:—Dr. Lowson: (1) Uterine Myoma, removed by Hysterectomy; (2) Multiple Fibromyomata of Uterus, removed by Hysterectomy; (3) Cyst of Thyroid, removed by excision of one half of Thyroid; (4) Angeio-fibroma of Forearm (Microscopical Section).—Dr. Cameron: Ovarian Cyst, with Varicocele of Broad Ligament. —Mr. R. H. B. Nicholson: Prostatic Calculi, removed by Suprapubic Cystotomy.—Mr. H. Thompson: Dermoid Cyst of Ovary.—Mr. Howlett: Polypus of Cervix Uteri.—Dr. Hainwnrth: (1) Hydrosalpinx with Ovarian Cyst; (2) Ovarian Cyst.—Dr. Frank Nicholson: Tumour of Right Temporo-sphenoidal Lobe.—Miss Sharman: Internal Hernia.—Mr. Palmer: Pyonephrosis, with Calculus in Ureter.

Instruments.—Dr. Harrison showed: (1) A New Pattern of Vaginal Speculum; (2) Demonstrated a New Suture.

Papers.—The following papers were read:—Dr. Harrison: Case of Appendicitis, with Unusual Sequelæ.—Dr. Daly: Observations on Conditions of the Heart and Urine, where a grave prognosis is sometimes erroneously given.—Dr. Frank Nicholson: Case of Acute Dermatitis, caused by handling the Rhus Toxicodendron.

The third winter meeting of this Branch was held on Friday, January 20th, 1899. The chair was occupied by the President, Dr. Harrison, and twenty-nine members were present.

Cases.—The following were shown—Dr. Lowson: Case of Abscess of Tempero-Sphenoidal Lobe, from Chronic Otitis Media; Operation. Dr. Harrison: Case of Right Spasmodic Torticollis.—Mr. R. H. B. Nicholson: Case on which his Paper (*infra*) was based.

Specimens.—The following were exhibited—Mr. H. Thompson: Salivary Calculus.—Dr. Waters: (1) Specimen from a Case of Diabetic Coma, after operation; (2) Exostosis of Tibia.—Dr. Lowson: (1) Tumour of back of Arm, affecting Skin and Triceps (tuberculous); (2) Abscess of Kidney.—Miss Sharman: Perforated Tuberculous Ulcers of Intestine.—Mr. Johnston: Cystic Disease of Kidneys.—Dr. Parkin: (1) Calcareous Nodules from the Lung; (2) Large Comedo.—Mr. Howlett: Fibrous Tumour from Globus Major.—Dr. Cameron: Cyst of Labium Majus. Dr. Parkin exhibited a new Uterine Irrigator. —Mr. Howlett exhibited a Portable Lithotomy Crutch.

Papers.—The following papers were read—Mr. R. H. B. Nicholson: Case of Strangulated Hernia, with Gangrene of Intestine; Closure of Artificial Anus with Dupuytren's Enterotome.—Mr. Howlett: Aseptic Surgery.

BATH AND BRISTOL BRANCH.

The third meeting of the session was held at Bristol on January 25th, Dr. Lionel A. Weatherly (President) in the the chair, when 69 members and 1 visitor were present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

New Members.—Mr. Wilson Eager (Northwoods), Dr. T. Curtis Leman (Chipping Sodbury).

The Etiology and Prevention of Tuberculosis.—A discussion on this subject was opened by Dr. S. Davies, Medical Officer of Health, Bristol, in a paper which will be published. Dr. Davies, in conclusion, asked the meeting to affirm the following resolutions:

1. That this Branch of the British Medical Association expresses its sympathy and accord with the objects of the National Association for the Prevention of Consumption.

2. That it is desirable that a local brach of the National Association for the Prevention of Consumption be formed, and that a Committee of this Branch of the British Medical Association be elected to consider the pre-

liminary arrangements for the formation of a lay and medical branch of the National Association.

3. That this Branch affirms the desirability of "registration" or modified "notification" of phthisis, so framed as to secure the aid of the public authority in bacteriological examination, in the spread of preventive knowledge, and in disinfection; but without the inclusion of compulsory powers as to removal, or of any powers of interference with occupation.

4. That pending legislation to this end the members of this Branch are in favour of a voluntary system of notification.

5. That this Branch trusts the Legislature will shortly deal with the recognised danger of the spread of tuberculosis by means of food, especially milk, and will give public authorities more efficient control in these matters, more especially as to the establishment and compulsory use of public slaughterhouses, and the elimination of tuberculous animals from dairy farms.

—Dr. E. **LONG FOX** said that during the time he had been engaged in practice he remembered many so-called cures for phthisis which had since more or less fallen into oblivion. The possibility of cure was much greater in adopting Nature's own means of over-feeding, freedom from care and anxiety, and open air. Treatment by the above means in sanatoria would not, however, cure all cases, as some articles that have appeared in the lay journals might lead one to suppose. It behoved us to be enthusiastic in carrying out treatment, but not too sanguine in our prognostications of the result. There lay upon medical men the duty of impressing upon the public that the poor should, by the establishment of cheap sanatoria, have the chance of benefiting from the new methods of treatment. The best way of combating phthisis was to keep the patients under conditions in which they could assimilate a superabundance of nutriment.—Dr. **SHINGLETON SMITH** remarked that this universal scourge was one which affected all races, all countries, all climates, and that the nomadic tribes such as the Bedouins of the Red Sea and the Arabs of Algeria, although naturally immune, easily contracted the disease when they gave up their nomadic life and lived in more or less close captivity. The tendency of modern ideas is to favour a return of the invalid from a life of civilisation to something resembling that of the desert, and to encourage this kind of life at home rather than to go abroad to find it. The dangers inherent in the dwelling were to be remedied by abolishing the dwelling as much as possible, and if the house could not be burnt, it must be at times thoroughly purified.—Dr. **SYMONS** (M.O.H. Bath) had collected particulars concerning 3,500 deaths from tuberculous disease, and had been able to refer all but 108 of these to the house in which the death took place; he found that the houses in which two deaths from phthisis had occurred during the past thirty-two years were about three times as numerous as they would have been according to mere chance. Houses with three deaths were nine times as numerous, etc., but he did not think that house infection was at all the principal source of infection, so many persons were immune and sunlight and fresh air such good disinfectors. Locality was undoubtedly an important factor, and damp sites should be avoided. He did not think they had much to complain of in this part of England as regards the food supply, but without the tuberculin test we were in the dark; still, we knew there was ample pasture ground, the cows were not stall fed, and fresh air for the cows is the best safeguard against tuberculosis. Dr. Symons considered overcrowding the principal predisposing cause to phthisis, and in order to give children a fair chance of getting fresh air he advocated systematic examination of the throats of all children with the view of removing adenoids or other obstructions in the air passages.—Mr. **BRAINE-HARTNELL** (Cheltenham) drew attention to the prevalence of tuberculosis amongst the dairy stock. It was Professor Delépine's opinion that under present conditions one half of the cattle after the age of three years were destined to become tuberculous. There was a much greater prevalence of the disease amongst the cows than the bulls and oxen, and calves were very rarely tuberculous at birth; when born with signs of the disease the uterus of the mother was probably tuberculous. Out of 610,000 calves examined abroad (*post mortem*) only 12 were affected. The regulations regarding meat inspection were very lax: all meat inspectors should be duly qualified veterinary surgeons. As regards the milk it was most important to have it all boiled. At Fécamp, in Normandy, the infant mortality had been reduced 50 per cent. owing to the use of sterilised milk, and the deaths from enteritis reduced from 30 per cent. to 16 per cent. At Grenoble the mortality from diarrhœa during the months of July, August, and September was on an average, when fed upon non-sterilised milk, 69 per cent., but when fed upon sterilised milk 27 per cent. It had been calculated that at least 30,000 infant lives would be saved in France annually if only sterilised milk were used. Reference was then made to the great reduction in the mortality from tuberculosis that had taken place in the last 50 years, and there was every prospect that the next few years would see a still greater diminution.—Dr. **MARKHAM SKERRITT** said that from the clinical point of view tuberculosis differed from the other diseases, which were now notifiable in two important respects: its slight infectivity and its chronicity. Whereas in the case of the acute specific diseases—and notably in that of small-pox in the absence of vaccination—all that was needed for infection was the contact of the poison with the healthy organism, in tuberculosis the attack of the bacillus was resisted by the majority of those in whom a special soil did not exist. As regarded infection through the alimentary canal, this difference was well brought out by a comparison of tuberculosis with typhoid fever. The BRITISH MEDICAL JOURNAL of January 21st (p. 169) contained a reference to the results obtained by Kanthack and Sladen from an examination of the milk supplied to the colleges of Cambridge. Out of the sixteen dairies, the milk from nine caused tuberculosis in guinea-pigs. Had there been a similar infection of the supply with the virus of typhoid fever, the result would have been a formidable outbreak of the latter disease. There was no reason to believe that the milk in question was exceptionally contaminated; and yet similar widespread outbreaks of tuberculosis were not met with. In its other feature—its chronicity—tuberculosis resembled syphilis and leprosy. Leprosy was the only disease of similarly protracted course in which isolation was adopted; and it was possible because of the comparative rarity of this disease. But for the isolation of tuberculosis a vast special provision would be needed as compared with the acute infectious diseases, on account of the chronicity of tuberculosis and the comparative rarity of complete recovery. For these and other reasons, it was unlikely that the risk of infection from tuberculous patients would ever be generally met by their isolation; and the precautions now adopted in individual cases would probably be a sufficient safeguard. The risk of infection from the lower animals—practically through meat and especially milk—was to be met by proper measures of inspection. Already milk and butter contracts had been made subject to the use of the tuberculin test in the farms from which the supplies were drawn; and there was no reason why institutions such as schools and hospitals should not at once make the adoption of this test a condition of their contracts.—Dr. **WATSON WILLIAMS** considered that the question of a modified form of notification, or registration of cases of tuberculosis, was a matter of very great importance. It was difficult to understand how it would ever be possible effectually to check the spread of the disease without some such measure, when one called to mind the elaborate series of experiments on the infectivity of dust in the rooms of consumptives by Delépine, Ransome, and others. The meeting had been reminded that no nation or tribe, and no place had been found where tuberculosis did not exist. He had himself during a visit to one of the most popular of recently-developed health resorts for the phthisical—Egypt—been struck by the large percentage of mortality from tuberculosis amongst the natives, and the Soudanese coming to Lower Egypt seemed particularly susceptible. He thought that good results would be accomplished if the medical profession followed the scheme of the National Association for engaging the co-operation of the general public in coping with the disease.—Dr. **THEODORE FISHER** thought the communication of tuberculosis through milk in human infants was not perfectly established. Dr. Carr, Dr. Comby, and others had shown that even in cases of tuberculous infants under 1 year, the intestinal glands were far less often affected than the bronchial and mediastinal glands, whereas, if infection took place through milk, the contrary would be the case. He alluded to the mode of invasion of the lungs in children as taking place through the bronchial glands, and showed two specimens illustrating this point. Without wishing to weaken Dr. Davies's position, he at the same time thought that in efforts for the prevention of tuberculosis, attention should rather be given to the sanitary condition of dwellings than to the milk supply.—Dr. **WALLACE** (Weston-super-Mare) pointed out though statistics varied, all evidence pointed to great prevalence of tuberculosis amongst cattle. More ought to be done to prevent its spread amongst cattle, and the crux of the matter lay in the question of compensation to the owners of diseased animals. Without compensation he believed the disease could not be checked in cattle.—Dr. **ROGERS** said that he did not believe in the hereditary transmission of tuberculosis. He thought food as the source of infection was in England comparatively unimportant as compared with the expectoration. The statistics as regards "consumption of the bowels" were fallacious, as many deaths certified as due to this cause were to be attributed to other causes.—Dr. **HARRISON** remarked that in his experience, extending over a long period of years, in connection with the Clifton Zoological Gardens, he had known many cases of tuberculosis amongst the birds and animals, especially canaries, various small birds, parrots, cockatoos, and monkeys, and these were often household pets, and therefore these might be sources of infection.

The resolutions proposed by Dr. Davies were passed unanimously.

SPECIAL CORRESPONDENCE.

PARIS.

The Assistance Publique and the Maternity Hospitals.—General News.

PROFESSOR PIERRE BUDIN, in a recent lecture at the Maternity Hospital, stated that in 1877 and 1878 the Assistance Publique supplied medical attendance and care in childbirth to 19,600 women. In 1896 the statistics were 31,987, which shows a rapid increase of births. These in a very large proportion take place in the maternity wards of hospitals. In Paris there are about 50,000 births a year. In three-fifths of these the expenses of medical attendance fall on the Assistance Publique. This increased charge on the Assistance Publique is the result of many causes. In the hospitals there are many more beds for women in childbirth. Patients do not fear the hospitals as they did formerly. Antisepsis and sanitation have made them attractive. The facility of removing patients increases demands for admission to the hospitals not only from the Parisian population but also from that of the Seine Department. The quick communication by telephone, with the admirable municipal and urban ambulance organisations, enables women actually in labour to be removed to hospitals in cases of special difficulty. Not only the number of normal deliveries, but also obstetrical operations increase at the hospitals. M. Variot declares that it cannot be admitted that three-fifths of the Parisian births should take place at the expense of the Assistance Publique. This view is supported by many who declare that there is an abuse of the maternity wards by people able to pay. Some pay four or five francs a day. This sum does not cover the expenses incurred. M. Derouin, General Secretary of the Assistance Publique, has lately declared that it is excessively difficult to recover the sums due from paying patients. Inquiries have to be made with great discretion and delicacy, incurring more expense than these fees cover.

The International Hospital, in the Rue de le Santé, founded by Péan, will henceforth be called l'Hôpital Péan. Dr. Delaunay, formerly M. Péan's *chef de clinique*, has since the death of that eminent surgeon replaced him. He will continue to direct the surgical wards. Under the new organisation there will be medical wards for general and special illnesses. The patients will be treated by *chefs*, formerly "*internes des hôpitaux*."

A certain number of members of the Chamber of Deputies, MM. Astier, Charles Bôs, Barthou, Chautemps, Mézières, Poincaré, and Pourteyron, have proposed an amendment in the Budget, providing for a Chair of Clinical Gynæcology to be created at the Paris Medical Faculty. This proposition has been adjourned for consideration at the next Budget.

MM. Emile Dubois, Bompaid and Milleraude intend to ask the Chamber of Deputies to establish a sanatorium for tuberculous soldiers or those threatened with the disease.

CORRESPONDENCE.

THE GENERAL MEDICAL COUNCIL AND THE SOCIETY OF APOTHECARIES.

SIR,—It is to be feared that the ball set rolling by the unfortunate prosecution of the late Mr. Hunter will gain fresh impetus from the recent decision of the Divisional Court in Hunter *v.* Clare. That prosecution was as ill-conceived as its latest development is disastrous to the profession. What is of importance to us is that unregistered practitioners should be prevented from carrying on their noxious trade to our loss, and to the great danger of the public, and nobody takes any interest in such silly questions as whether or not men legally qualified to act as physicians and surgeons should be allowed to style themselves such.

Two of Her Majesty's judges have decided they are not so entitled, and by that decision considerable inconvenience and uneasiness is likely to be caused to a large number of respectable practitioners throughout the country; so that the General Medical Council has now succeeded in doing as much mischief to one portion of its constituency by its ill-judged zeal as it had previously done to the whole profession by its masterly inactivity in checking illicit medical practice.

Such litigation as this serves no useful purpose, and tends to disgust the public with the grievances of the profession. If our chief authority can find nothing better to do than to take action in cases of this kind, it is not an unreasonable conclusion to draw that our other grievances are not of much importance; and so it happens that it is only with the greatest difficulty the House of Commons can be got to consider medical Bills.

Whatever difficulty there was before with regard to medical titles, the latest judicial decision has made the matter ten times worse. How will it be possible for the public to swallow such a dictum as that a physician at the present time does not mean one who practises medicine, but a licentiate of a College of Physicians? Similarly, it must be inferred that a surgeon can only be a licentiate of a College of Surgeons.

It may be noticed that the judicial mind is not altogether consistent, for Mr. Justice Lawrance lays down by implication that a doctor of medicine is a physician. As the latter can only claim this title because he practises medicine—for he is in no sense *quâ* M.D. a licentiate of a College of Physicians—it requires some mental ingenuity to understand why the L.S.A. for the same reason might not also be regarded as a physician, seeing that his legal right to practise medicine is precisely the same as that of the M.D.

The Apothecaries' Society cannot appeal against this decision; perhaps it might be the better policy to leave it severely alone. It will be interesting to note who will be the next to institute proceedings against the numerous L.S.A.s in the United Kingdom who are bold enough to call themselves physicians and surgeons because they practise medicine and surgery.—I am, etc.,

MAJOR GREENWOOD, M.D.Brux., LL.B.Lond.

Hackney Road, N.E., Jan. 30th. Barrister-at-Law.

SIR,—I am very pleased with your leading article on the General Medical Council and the Society of Apothecaries, and I quite agree in thinking that the Council would be far better employed in devising means for effectually checking unlicensed practice than in persecuting the legally qualified.

Of course, if it can be proved that a licentiate of the Society of Apothecaries is not qualified to practise in all points as a physician and surgeon, it is clear that he has no legal right to designate himself by those titles. That is the crucial point. It will therefore be interesting to learn what particular lines of practice the *bonâ-fide* physician and surgeon is legally permitted to take up, which the mere L.S.A. can only attempt at his peril. If the actual knowledge and skill of the one be equal to that of the other, and both are legally qualified to practise in all departments of their profession, it is worse than splitting of hairs to quarrel over names. So far as my experience goes, the curriculum of all registered practitioners is pretty much the same, their opportunities of acquiring knowledge pretty nearly equal. Decorative titles, as distinct from those which are requisite for entry in the *Register*, do not always mean that the practitioner holding them was more successful as a student. Moreover, the public eye would be widely opened if it knew how some of them have been obtained. The best test of a man's ability is his success in the actual treatment of disease. Yet those decorative titles stand a man in good stead initially, being the only means of advertisement allowed in the medical profession.—I am, etc.,

January 28th. M.R.C.S.Eng., L.S.A.

Sir,—I write to call attention to the further consequences of the decision in the case of the late Mr. Hunter, or Dr. Hunter—for do we speak of the late Mr. Charcot because he did not possess a British M.D.? This decision not only affects the right of an L.S.A. to call himself a physician, but also that of an L.R.C.P.; for Mr. Justice Lawrance said that he was not a physician because he was not a doctor of medicine—evidently confining the title to a consultant. This line of reasoning would prevent a general practitioner M.R.C.S. from calling himself a surgeon. Now a man may be a doctor of medicine without being a physician at all, that title belonging to Fellows, Members, or Licentiates of a College of Physicians. It seems to me that an M.D. is a doctor; a Fellow, Member, or Licentiate of a College of Physicians, a physician; a Fellow, Member, or Licentiate of a College of Surgeons a Surgeon; and a licentiate of a Society of Apothecaries an apothecary.—I am, etc.,

January 29th. L.R.C.P.Lond.

Sir,—Two points in the judgment of the Divisional Court in Hunter *v.* Clare seem of practical importance to the profession. The first half of both judges' ruling was devoted to an attempt to define the meaning of the word "physician," but the line of thought of the two judges does not seem to me quite to coincide. Mr. Justice Lawrance seems to lay stress on the meaning of the word as conveyed to the ordinary citizen, and his remarks are just:

> The question is, In what way was the word "physician" used? Was it a mere general expression signifying the man was a medical man, a doctor, or was there a more definite meaning to be attached to it—namely, that he was a physician, which would import to most people that he was a Doctor of Medicine, and held a diploma entitling him to practise as such? That, I think, was the real meaning of the word "physician" as used by him; and I have no doubt whatever that would be the meaning conveyed to the mind of anyone who saw on a brass plate, "So-and-so, Physician." It would to my mind at all events, and I should think it would to the ordinary mind, import that he was a Doctor of Medicine and a Physician—something which he really was not.

Mr. Justice Channell, on the other hand, devotes this part of his ruling to an attempt to define the word as used in Section XL of the Act of 1858. He says:

> Having regard to the fact that prior to the passing of this Act "physician" was commonly used, at any rate in the sense of applying to what was—I may call it without disrespect to the others—the highest grade of medical practitioners, I think it was so used in this Act; and I think if you look through the Act generally you will find confirmation of that. There is some confirmation of it in the fact that these words—"physician, doctor, licentiate in medicine," and so on—most of them have application to the specific bodies that are entitled to give qualifications. It seems to me that "physician" here had got somewhat of a technical sense, and that it, in point of fact, was a word used as importing a particular grade of medical practitioner.

There is no ambiguity here in the mind of either judge; both understand the word "physician" to indicate to the public mind, and to be intended in the Act of 1858 to indicate, a particular or higher grade of practitioner of medicine than the ordinary general practitioner. Unfortunately there is no attempt to define the word more closely, no attempt to define it as one who does not practise surgery, or who is a Fellow of one of the Colleges of Physicians. But even without such further definition, it is obvious that this ruling must apply to Licentiates of the Colleges of Physicians as well as to those of the Society of Apothecaries. It having become a growing custom for the Licentiates of other Colleges to style themselves on their plates "Physician and Surgeon," it will be interesting to see whether the General Medical Council will force this ruling of the Court upon these gentlemen, and make them withdraw the title "Physician" from their doors, as "wilfully false descriptions."

The other point is presented in the parenthesis of Mr. Justice Lawrance:

> By which certificate I understand at the present time he is entitled to practise both medicine and surgery, as well as to act as an apothecary.

By implication it appears that the judge does not consider that any person not holding a certificate from some qualifying body is entitled so to practise. As this point was not at issue in this case, too much stress cannot be laid on the opinion implied in this sentence, but it affords a slight confirmation of the view held by Mr. Horsley of the powers conferred on registered practitioners by the Medical Acts, a view which I regret I am myself unable to share.—I am, etc.,

Westerham, January 30th. Arthur Maude.

Sir,—As a doctor of medicine without a diploma from a College of Physicians, I have always held I should be in error to term myself a "physician," and in the witness box have denied, when asked or it has been suggested, that I am one. I should like to learn whether that attitude is correct and if I should permit myself, as now, to be called a Consulting Physician (what other designation would do?) to an institution. It seems to me the only persons who can properly term themselves "physicians" are those who possess a College of Physicians, diploma, and that anyone else using that title is deceiving the public and could be proceeded against for illegal assumption of a diploma. I may be wrong and am open to conviction, and wish to know whether a doctor of medicine only is legally a Physician.—I am, etc.,

January 31st. S. H.

"A CONTRIBUTION TO THE TREATMENT OF PUS IN THE PELVIS."

Sir,—The paper on this subject by Mr. J. Furneaux Jordan in the British Medical Journal of January 21st contains so striking an example of the misuse of figures—it were gross flattery to call them statistics—that exception must be taken to it. He wishes us to accept the view that the death-rate of operations for "pyosalpinx" is 15 per cent. Mr. Furneaux Jordan has been my pupil, and it is therefore not unnatural that I should complain of his ignorance of my teaching. Either he ought not to refer to my writings at all—certainly he ought not to indulge in the flattering phrases he uses towards me, for under the circumstances they are merely jocular—or he ought to be familiar with my views and controvert them if he can. On the whole, I prefer to be left entirely alone rather than be misrepresented.

It may comfort Mr. Jordan to pick out a series of cases from my publications, and having made out a mortality of 15 per cent. for me and others, rest satisfied that we are, or at least have been, as bad as he is. But in the first place it is not true, and in the second the fact would be of no value if it were established. As far as argument for any purpose whatever Mr. Jordan might just as well pick out 100 cases of death in my practice and say that my mortality was 100 per cent.

In a volume published in 1889 I engage in a laboured argument to show that cases of inflammatory disease of the uterine appendages for which operations have to be performed are of such kinds—mixed and varied—that it is quite impossible to divide them into classes on any accurate system, or with any advantage to our art. At page 409 *et seq.*, I therefore publish a list of all the operations performed by me on such cases from January 3rd, 1880, up to May 6th, 1889. They number in all 474, with a total mortality of 2.5 per cent. The number is large enough for me to be able to say that the probability is that this represents not only my own mortality but the mortality of the operations in question, as they were the best results obtained up to that time, and I have yet to learn that they have been excelled. Mr. Jordan takes a different period, and I have not taken the trouble to go to the books and correct his figures, for his principles of selection are evidently peculiar, and they are not explained. But if I follow him in his own mistake I can pick out of my list 182 cases of pyosalpinx with 5 deaths; it gives a death-rate of 3.2 per cent. This must be very near the mortality of such cases, but even allowing for possible error—and it has been found difficult to print even the Bible without mistakes, and wholly impossible to reconcile its figures—and doubling the mortality, it is a long way from the figures as twisted by Mr. Jordan.

But what rubbish the whole thing is will be seen by the slightest consideration of the variations in the cases, given even briefly as they are in the proper column. These cases cannot be taken out in this way with any fairness, for I have seen a huge double pyosalpinx lying like a double parovarian disease, quite loose in the abdomen, and having no more risk to encounter in its removal than the parovarian tumours. On the other hand, I have recorded many cases which I enter as "chronic ovaritis," with adhesions so dense as to tax not only my utmost skill and determination to finish the operation, but my physical strength to overcome them. What nonsense it is to attempt to classify cases from a condition in itself of no importance, and very often not capable of determination until the operation is over.

I hope no one will follow Mr. Jordan's attempts at the use of figures until at least they have read what I have said in my book against it. Nor do I wish beginners to attempt to follow him in the "new method" of the vaginal route; and when they are no longer beginners they will not trouble about it, for the abdominal road will help them in all that should be done unless it is deemed advisable to remove the uterus as well, and then they will generally require to use both roads, finding it always safest to begin above, for then they will learn much that cannot be learned from below until it is too late.—I am, etc.,

Birmingham, Jan. 26th. LAWSON TAIT.

THE LONDON SCHOOL OF TROPICAL MEDICINE.

SIR,—I wish to add my testimony to the value of the opportunities afforded by the Albert Docks Hospital for the study of diseases peculiar to the tropics. Through the courtesy of Dr. Manson I have paid several visits to the wards and clinical laboratory of this institution, and have been shown not only cases of the tropical eye lesions, in which I am specially interested, but also various forms of malarial fever, cases of beri-beri, hepatic abscess, dysentery, and guinea worm. The conversion of this hospital into a teaching institution will, I am convinced, supply a long-felt want by equipping civil medical practitioners proceeding to our colonies and dependencies with the same armamentarium of practical knowledge so long furnished to army medical officers at Netley.

I believe a great school of tropical medicine—second only to the splendid army school at Netley, of which we are all so justly proud—is in process of formation at the Albert Docks, and feel sure none will congratulate the members of the Colonial Medical Service more heartily on the fact than their *confrères* of the Royal Army Medical Corps.

I trust that the last has been heard of the opposition of the medical staff of the Seamen's Hospital, Greenwich, to the scheme, and I for one have not abandoned the hope that Dr. John Anderson's unfailing tact, wide experience of tropical disease, and known capacity for communicating his knowledge to others, may yet be devoted to the organisation and development of the new school.—I am, etc.,

M. T. YARR,
Marlborough Mansions, S.W., Jan. 28th. Major, R.A.M.C.

THE COUNCIL OF THE ASSOCIATION AND THE MIDWIVES BILL.

SIR,—The incomplete report of the proceedings in Council with regard to this Bill is so misleading that I must request you to allow me to state that I made a vigorous protest against the Association dealing in any way with the Bill drafted by the Midwives' Institute, and that I further asked if the Parliamentary Bills Committee had abandoned their own Midwifery Nurses Bill. I wish my disapproval to be made known in order that the Lancashire and Cheshire Branch which I have the honour to represent on the Council, may know that I have not failed to advocate what I know to be their views on this important question.

There is not a handful of men in this district who would agree with the remarks which fell from Dr. Woodcock in the Parliamentary Bills Committee, and which you published. He proposes "to improve (?) the Bill without seriously interfering with the principles now embodied in it." Such a suggestion can only be born of ignorance of the history of the several Bills advanced by these agitators, all and each providing registration without control!

The profession has never lent its sanction to any legislation other than that which secured complete medical control over the work of midwives, and this for the very substantial reason that they believe that the parturient poor of this country should be able to command the highest skill the profession can afford.

There is but one plan, and that is that every woman should be visited by a duly-qualified medical practitioner within twenty-four hours of her delivery. This would at once ensure the detection of any malpractice and secure the necessary treatment of those frequent accidents attendant upon childbirth being at once carried out, the neglect of which has such dire results.

It is true one or two of the suggestions of the General Medical Council have been adopted by the Midwives Registration Association, but we have no guarantee that even these will be adopted ultimately. For myself I certainly feel somewhat amused at the childlike trustfulness in the promoters of this Bill expressed by Dr. Glover in his letter to the *Lancet* of this week. And that I am justified in my suspicion I quote the expressions of one of the lady supporters of this movement—Mrs. Jacob Bright—who said, "the Bill is so full of restrictions and penalties that we could not possibly accept it."

A word as to the omissions from the Bill of the more important suggestions of the General Medical Council. The definition indicates that a midwife undertakes to attend cases of labour (all), presumably, therefore, she may send any handy woman to do the work she has undertaken, and there is no restriction as to whether her deputy shall be licensed or not.

From time to time the Council of this Association has sought an interview with the President of the Council in order to bring before the Government the suggestions of the profession, but His Grace has always declined to receive them, and at the time the last request was made, the Duke of Devonshire had actually the Bill of the Midwives Institute before him, received it, and forwarded it to the General Medical Council for criticism.

In view of such a pronounced snub, it seems to me the most dignified course for the profession to adopt is to wipe its hands entirely of this mischievous Bill. Dr. Woodcock's assertion that to try and amend these dangerous proposals is "the most statesmanlike course to adopt," will not be endorsed by any of your readers, I imagine.—I am, etc.,

Old Trafford, Jan. 28th. JAMES BRASSEY BRIERLEY.

THE CASE OF REGINA v. REICHARDT.

SIR,—The prosecution of Dr. Reichardt, to which Dr. Goodhart drew attention in the BRITISH MEDICAL JOURNAL of January 28th, is, as he describes, an excellent illustration of the need that exists for an amendment of the lunacy law.

Dr. Goodhart does not seem to be aware that efforts have been made during the last two or three years by the British Medical and Medico-Psychological Associations to obtain the introduction of a clause legalising the treatment in private homes of cases of incipient and unconfirmed mental disorder for a period of six months without certification. Such a clause already exists in the Scotch lunacy law, and has worked for many years in a perfectly satisfactory manner.

I will not trouble you with a repetition of the facts which I stated at the Carlisle meeting of the Association, and which led to the passing of a resolution by the Psychological Section pressing on the Council the necessity of such a reform.

The result of the Reichardt case shows that as the law stands a medical man may be put to great expense, even where he has taken the utmost care to avoid breaking the law.

The Treasury no doubt undertakes these prosecutions under a strict sense of duty, but without great care they may have the appearance of being used vindictively as a means of preventing all treatment of mental trouble except under certificates.

The evil of compelling early certification has been recently illustrated in a case in which a professional man, certificated for a brief mental illness, lost a valuable partnership, and was thus practically ruined. The early treatment clause would have saved him from this calamity.

I sympathise with Dr. Reichardt in his heavy loss, and I hope that the profession will demonstrate its feeling by mitigating this, and will show its sense of the injustice by a strong appeal to Parliament, not only to amend the law, but to demand that all expenses and losses entailed by unsuccessful prosecutions should in future be paid by the Treasury.—I am, etc.,

Harley Street, W., Jan. 29th. H. RAYNER.

LUNACY LAW AND BORDERLAND CASES.

SIR,—In a leading article under the above heading, published in the BRITISH MEDICAL JOURNAL of January 14th, you make use of the recent trial of the Queen v. Reichardt for the purpose of criticising the utility and advantages of certification as provided for by the Lunacy Act of 1890. Your article conveys by implication what Mr. Carson the counsel for the defence, expressed so forcibly to the jury, namely, that certification means incarceration in an asylum, and you lose sight of the case for the prosecution, which was—not that the unfortunate lady resided with Dr. Reichardt, but that she was not officially made known to the Commissioners in Lunacy in accordance with the provisions of the Lunacy Act.

I desire to make no comment upon the case, because it appears that Dr. Reichardt took every means to discover if his patient was certifiable, and subsequently treated her with care and skill, but with the deductions which you draw I must beg to disagree in the most emphatic manner,

In the first place, a patient who is suffering from severe depression with strong suicidal impulse cannot be classed as "borderland," and must not be grouped with "girls who have ephemeral attacks of hysterical depression or excitement."

Again, I can understand the JOURNAL encouraging the friends of a patient or her doctor in doing all that they can to have her properly treated and cured outside an asylum, for the day has not yet arrived—although it is not far distant—when mental diseases and asylums will be considered in the same light as physical illness and hospitals, and when people will cease to look askance at those who have seen the inside of an institution for the insane. In the present state of public feeling every allowance is to be made for the friends who seek to adopt this course; but that you should gravely countenance the treatment of these cases uncertified in any doctor's house is throwing the practice of lunacy open to very serious abuse.

I cannot agree that certification has any of the disadvantages you mention—namely, that the doctor charges double fees, that the patient is doomed to lead a single and isolated life afterwards, and that a ban is cast upon the sisters and brothers. Surely if a depressed girl is placed in the house of a doctor, the fact of two medical certificates and a reception order having been first obtained (in no wise a public proceeding) cannot attach a stigma of reproach to the patient and her friends for the rest of their days. The suggestion is absurd.

Certification *per se* does not bring all these ills in its wake, whatever residence in an asylum may do. Certification means and means only official cognisance of the patient's existence, and carries with it supervision by competent authorities who visit the patient and ascertain that he or she is not improperly detained, that the best environment and treatment have been adopted, and that everything is being done which will conduce to the patient's recovery and comfort. Surely these are inestimable benefits to receive in compensation for the fancied drawbacks of certification.

I believe that the great amelioration in the condition of the insane which has taken place in this country during recent years is in large measure due to more strict supervision and watchfulness by a central Government department; and if any doctor is to be allowed to undertake the treatment of insane or so-called "borderland" cases for his own profit, and without the knowledge of the Commissioners in Lunacy, there will be a recrudescence of those scandals which in the earlier part of the century brought discredit on those concerned in the treatment of insanity.

Let me not be misunderstood. I am no advocate for hurrying people off to asylums when they become temporarily deranged, but I maintain that in private care, almost more than in institutions strict supervision, by competent and independent authority is most necessary; and I should have expected the BRITISH MEDICAL JOURNAL to have been the last to make light of this public safeguard.—I am, etc.,

Sunbury-on-Thames, Jan. 23rd. W. J. HANDFIELD HASLETT.

⁂ In the above letter there are several misunderstandings. The mere certification of the patient would have made no difference to her treatment, and the suicide would have occurred just the same; therefore, the only alternative, according to the prosecution, must have been seclusion in an asylum. It is, surely, generally recognised that impulsive outbreaks, suicidal or otherwise, may occur in hysterical conditions. That double fees are charged and that there is a social ban connected with being certified are facts which we are surprised to find disputed.

A DEGREE FOR DOUBLY-QUALIFIED MEN.

SIR,—For years the practitioners who happen to have incurred the misfortune of being born south of the Tweed have suffered from a disparity as compared with their *confrères* who have had the good luck to be born north of Tweed or west of the Irish Sea. The disparity is this, that four-fifths of Scotch and Irish-born or educated medical men hold a university degree, while four-fifths of English-born and educated medical men do not. In Scotland and Ireland the great medical educating and qualifying corporations are the universities, whilst in England the Colleges hold that position. The number of degrees granted by English universities is only a small proportion of the total number of medical qualifications. Of course the number of university graduates in England does not represent the number of Englishmen who have obtained degrees, as a large number of Scotch and Irish graduates are to be found in all parts of England.

Rightly or wrongly—certainly wrongly—the general public regard the ordinary university graduate as a superior person to the ordinary diplomate; and thus these strangers who settle amongst us, and compete hotly with us, start life with a distinct and unfair advantage over the ordinary doubly qualified man. I say that the advantage is an unfair one because the curriculum and examinations for the double qualification are quite equal to the examinations of some universities, and the curriculum and examinations being equal, an equal value in the form of degree ought to be forthcoming, and it is an injustice that it should not be so and a monstrous fact that the inequality should not have been attempted to be removed by our colleges years ago.

Years ago the Scotch and Irish universities granted only a medical degree, the M.B. and M.D., but certain Government regulations requiring that candidates must have a distinct qualification in surgery, the Scotch and Irish universities simply "watered the capital" of degrees, and forthwith invented the M.C., which anyone could acquire for an additional £5 without any extra expenditure of brain force in the way of examination.

The least the two great London colleges can do is to apply for powers to grant to, and confer upon, all their double diplomates the degree of M.D. with gown and hood galore. They must move with the times, and take a leaf from the book of the canny Scotch and 'cute Hibernians, and do justice, very tardy, to their diplomates.—I am, etc.,

A UNIVERSITY GRADUATE.

BELLADONNA IN BRONCHO-PNEUMONIA.

SIR,—In reference to Dr. Coutts's most instructive paper on above, I should like to say that I entirely agree as to the essential difference between croupous and catarrhal pneumonia in children. Indeed, from what Dr. Coutts tells us, it would seem that catarrhal pneumonia holds an intermediate position between lobar pneumonia on the one hand and spasmodic asthma on the other. The great value of belladonna in asthma and whooping-cough are well recognised, and when we come to consider the main actions of this drug upon the nervous and vascular systems, we find there are many reasons why belladonna should prove of value in broncho-pneumonia. As an antispasmodic; as a stimulant to the cardiac muscle; as a stimulant to the vasomotor and respiratory centres; and lastly, as diminishing secretion, it must tend to relax the tubes, to obviate the stasis in the vessels around the bronchi, and facilitate the breathing.

I have been accustomed to employ iron in these cases with great benefit, having regard to the fact that this remedy increases the number of blood corpuscles and the oxygen-carrying power of the same.

I have but briefly touched upon this most important subject, but I look forward to the promised paper of Drs. Shardlow and Edwin Nash with great interest, and it would, I think, be most instructive if, during their observations, notice could be taken of the effect of belladonna upon the pulse-respiration ratio.—I am, etc.,

Stradbroke, Jan. 29th. A. Hanbury Frere, M.B., C.M.

THE PREVENTION OF TUBERCULOSIS.

Sir,—My attention has just been called to a paper on the Prevention of Consumption, read by Dr. Ransom at the Congress of the Sanitary Institute at Bolton in 1887. This paper, which I regret I had not previously seen, is of earlier date than my paper on the same subject before the Epidemiological Society to which I referred in my letter in the British Medical Journal of January 28th, and in fairness to Dr. Ransom I ask you to insert this correction.—I am, etc.,

Harley Street, W., Jan. 31st. J. Edward Squire.

THE SLEEPING SICKNESS.

Sir,—Dr. Patrick Manson's clinical lecture on The Sleeping Sickness, published in the issue of the British Medical Journal, dated December 3rd, 1898, must have been read with much interest by many other medical men in the tropics besides myself. Dr. Manson cannot be praised too highly for the lucid manner in which he described the results of his observations on this interesting subject. It will not, however, have escaped some of the readers of his lecture that in important respects these results are disappointing.

In regard to its pathology, Dr. Manson admits that the condition remains a puzzle; its etiology is equally obscure; and it is not to be wondered at that this "sleeping sickness, so far, has proved incurable." Some suggestions on these points, which may be useful to your readers, will serve as my excuse for asking you to publish this letter.

But first I must comment on Dr. Manson's statement, made under the sub-head "Racial Proclivity," that "the negroes of the States, of the West Indies, and of Brazil .... never, so far as we know, nowadays get the disease." I am in a position to assure Dr. Manson that "sleeping sickness" is not unknown in British Guiana, if absent from the countries he names. I have myself had under treatment well-marked cases of the disease, and not in negroes alone. One of these cases corresponded in every respect with Case II, Tenda Mkaloo, recorded in Dr. Manson's lecture, and I would add, for the encouragement of Tenda Mkaloo, made a complete recovery.

The disease is also sometimes found in the aboriginal Indians of this colony. It seems strange that Dr. Manson should have ascertained the presence of "large numbers" and "myriads" of ova of the ankylostoma duodenale in the fæces of the two cases he describes, and yet failed to see the causal connection between these parasites and the disease. Even after dosing Case II, Tenda Mkaloo, with thymol, and seeing the great improvement that immediately followed, Dr. Manson was disposed to doubt the accuracy of the diagnosis rather than suspect the truth; namely, that "sleeping sickness" is nothing else but ankylostomiasis. Such is the conclusion I have arrived at from observations made in this colony.

I shall not prolong this letter unduly by attempting to explain how ankylostomiasis produces in certain races and individuals the symptoms that characterise sleeping sickness. It will occur to most pathologists that this admits of a more lucid explanation than will probably be found by seeking the origin of the disease in the obscurities of the pituitary body.

If my opinion is correct, that sleeping sickness is ankylostomiasis with symptoms modified by individual and racial peculiarities, then sleeping sickness will cease to be considered incurable. Except such cases as have arrived at a stage hopelessly beyond the curative power of thymol, etc., no case of sleeping sickness need die. Dr. Manson has in his two clinical cases the opportunity of putting this opinion to the test; and no one is better qualified for the purpose.

If the line of treatment here suggested is followed out, Eli Mboko and Tenda Mkaloo are in good hands, and we may hope to hear of their complete recovery in due time.—I am, etc.,

J. E. A. Ferguson, M.B., C.M.,
Resident Surgeon, Public Hospital, Suddie, British Guiana.
January 3rd.

IS PLUMSTEAD UNHEALTHY?

Sir,—In your first notice of Mr. Shirley Murphy's annual report for 1897, you gave prominence to the low death-rate of Lewisham, Hampstead, and Plumstead, but you state that this is "mainly due to the enormous differences in the social status and age and sex distribution of the different sanitary areas comprised within the county." Plumstead, however, cannot be classed with Lewisham and Hampstead in its social conditions; for, as Mr. Murphy's report shows, its age and sex distribution approximates to that of England and Wales, so that no correction is required for its death-rate. As regards absence of poverty, too, it comes far below Lewisham and Hampstead.

The credit for Plumstead's low death-rate, then, must be largely given to the Vestry's able sanitary administration and its salubrious climate. It is only fair that the latter point should be insisted on, for the dread of Plumstead marshes still survives, and gives the locality a bad name, in spite of the fact that there have been no marshes and no ague for thirty years. Only a few weeks ago a physician of well-deserved fame expressed to me a doubt whether Plumstead was a suitable place for the open-air treatment of phthisis, and Plumstead practitioners hesitate to send their patients to a consulting physician, lest they should be advised to go and live in a more healthy place. If, sir, these physicians would study Mr. Murphy's reports, and the health tables and abstracts in your own columns, they would probably recommend patients from other parts of London to migrate to Plumstead.—I am, etc.,

Sidney Davies,
January 23rd. M.O.H., Plumstead.

CLINICAL INSTRUCTION IN MIDWIFERY AND GYNÆCOLOGY.

Sir,—I was delighted to find Professor Edgar's letter in the British Medical Journal of January 7th, as the subject on which he writes is one which has impressed me more and more since leaving hospital for general practice. I went through the ordinary student's course at one of the large London hospitals, where I afterwards held the post of Obstetric House-Physician, since which time I have been an assistant, and am now in general practice on my own account, so that I can regard the question of the adequacy of the present methods of clinical teaching of midwifery and gynæcology from these different points of view.

1. *As a Student.*—According to present regulations no examining or licensing body requires the student to attend more than twenty confinements. Now even when the student conscientiously does all his twenty cases, a large number of these—probably eighteen—are practically normal, possibly six or eight are "born before arrival;" and in the case of the careless student much fewer actual attendances are performed. When cases are in small proportion to students the latter go in couples to the same case, and if one be slack and the other keen, the slack gentleman leaves his colleague to do the weary waiting, etc., and often only sees perhaps ten cases right through. The most important point of all is that there is no clinical instruction in midwifery enforced by the licensing bodies or provided by the majority of the teaching bodies. A man who is supposed to have attended a course of lectures on midwifery is sent into the slums to attend twenty confinements, and if he gets into difficulties he sends for the midwifery assistant, who generally is a recently qualified student who has had similar experience himself.

2. *As Obstetric House-Physician.*—It is in obstetric and gynæcological wards that the result of this kind of teaching or no teaching is seen. Professor Edgar remarks on the large proportion of septic cases of all sorts that are sent in after confinements. I will only refer to two further points under this

heading. The first is that of ruptured perineums. While I was house-physician these old cases of ruptured perineums formed nearly half of all the operations performed in the department, and a great many more who did not submit to operation were seen in the out-patient department. Why is it that these cases are not treated at once by suture to heal by primary union? The answer, I think, is that the practitioner has never seen a ruptured perineum sewn up, and is afraid to touch it. What would be thought of a doctor who, in the case of a cut right through the lip or cheek, left the case to granulate, and then sent it to hospital for a plastic operation? Yet a similar practice is so common in midwifery as to pass almost without remark. The second point is that of malignant disease. Every week women attend the hospital, or are sent there by their doctor, suffering from malignant disease of the cervix or vagina, which is much too advanced for operation. The majority of these have had medical attendance, and say they have been treated for "a cold in their inside" or for "the change of life"; and yet most cases of malignant disease of the cervix and vagina are very easy of recognition. The fact is that a great number of licensed and registered medical men have never seen a case of malignant disease of the uterus. This subject is one of immense importance, because the general practitioner is almost invariably consulted by the patient under the impression that she is suffering from a disorder of menstruation; and if he does not undeceive her, she continues under his care, and does not see a specialist until too late.

3. *As a general practitioner* Professor Edgar says of the student that "almost all his future work will be divided between medicine and obstetrics." There never was a truer word, and yet why is it that we are left until we become practitioners to find this out? And especially seeing that midwifery allows of no delay and often of no consultation. A doctor is often required to perform an operation requiring considerable skill and involving serious risk to two lives at a moment's notice, and yet in a great number of cases he has never seen the operation performed. For example, the application of forceps or version or the insertion of a de Ribes's bag for placenta prævia. Of course if a student is keen and far-sighted he will get instruction in these things, but there is no regulation by which he must do so. Many men go into practice fully qualified to do a radical cure for hernia or to trephine the skull, but never having seen forceps put on. Imagine a medical man undertaking a practice which consisted largely of ophthalmic work who had only seen twenty eye cases, and these mostly requiring no active treatment, and in the conduct of which he had had no clinical instruction!

A student is taught chemistry, physics, biology, anatomy, and physiology, and spends two years in clinical work, which are largely taken up in watching specialists do radical cures of hernia or diagnose and discuss cardiac murmurs; he then undergoes tutorial classes for his final colleges, and, if successful, get his licence—which some have called a licence to kill.

There can be no doubt that if the new Midwives Bill is passed, the midwives as a class will have had far more thorough clinical instruction in midwifery than the medical men under whose authority they will be placed.—I am, etc.,

Bristol, Jan. 9th. ERNEST W. H. GROVES,
M.B., B.Sc.Lond., M.R.C.S., L.R.C.P.

THE USE OF THE NAILBRUSH IN SURGICAL ASEPSIS.

SIR,—The paper by Mr. Lynn Thomas, in the BRITISH MEDICAL JOURNAL of January 21st, on the subject of the Use of Gloves in Operative Surgery, bears on that detail of surgical asepsis that is of prime importance, namely, the disinfection of the skin, not only of the patient, but also of the hands of the surgeon and his assistants. To ensure this, all are agreed that the mechanical removal of dirt and micro-organisms is one of the most important preliminary steps, but there is not complete unanimity as to the details of this procedure. Besides washing the skin in the ordinary way, many advocate a prolonged scrubbing with stiff nailbrushes for a period of not less than ten minutes by the clock. There might be circumstances calling for such a lengthy effort to remove the epidermal cells, but I sometimes ask myself whether it is not carrying the mechanical removal of septic matters too far, and whether harm may not sometimes be done both to the patient, the surgeon, and his assistants by this interference with that protection against infection which the normal and intact skin affords. Machnoff's experiments bear on this point. He rubbed agar-agar cultures of anthrax bacilli into the shorn skin of rabbits, and in every case the animal died. An examination of the skin showed no microscopical lesions, but anthrax bacilli were present in the hair follicles. In another set of animals portions of the same cultures were simply spread over the shorn skin and no infection followed, showing that the act of rubbing had forced the bacilli into the hair follicles. From these latter they entered the tissues and then the circulation, setting up a general infection. I am of opinion that many of the troublesome suppurations of the fingers that happen to surgeons, students, and nurses are due to scrubbing the hands with nailbrushes after exposure to pyogenic organisms, thereby forcing these latter into the tissues. And this can be done even with aseptic nailbrushes. On two occasions where I opened acute lactating mammary abscesses and used my fingers in breaking down the loculi they contained, I contracted small abscesses on the fingers, the pus from which gave the same culture as the pus from the breasts. I feel satisfied that these abscesses were caused by the subsequent scrubbing I gave my hands with an aseptic nailbrush, the effect of which was to drive some of the pyogenic organisms into the hair follicles of my skin. The lesson I have learnt from this experience is that after exposure to infection from pus I simply wash my hands thoroughly with pumice-stone soap and carbo-sapol solution, using, if possible, running water. While, therefore, fully impressed with the necessity in surgical work for mechanical cleansing of a part, I would utter a word of caution as to whether it may not, under certain circumstances, such as those I have mentioned above, be judiciously modified. In the same way I am inclined to think that the violent measures taken by many for the purification of the patient's skin may be the exciting cause of the often inexplicable "stitch abscesses" that from time to time arise. Possibly there may be applicable here the old motto, "*In medio tutissimus ibis.*"—I am, etc.,

Glasgow, Jan. 24th. GEORGE THOMAS BEATSON.

GLOVES IN OPERATIVE WORK.

SIR,—In the BRITISH MEDICAL JOURNAL of January 21st, page 140, there is a communication by Mr. J. Lynn Thomas on the use of gloves in general operative surgery. I should be glad, with your permission, fully to endorse his opinion of the advantages of using them. For more than three years I have worn them for all major operations. They save time, as no other preparation of the hands, other than simple washing, is required, wounds heal practically always by first intention, and the hands of the operator are not injured or disfigured by the use of strong antiseptics. It is probable and desirable that, as they become more generally used, improvements will be made in the gloves themselves. It seems to me that rubber gloves are more effectually protective than any others. Their drawbacks are that after a time they tend to become sticky after tying ligatures that have been kept in oil, and occasionally when operating on a fat patient one is not always able to get so firm a grip of the forceps. It needs but a very short time to become accustomed to their use, and they are a great convenience.—I am, etc.,

W. J. CANT, M.R.C.S.,
Consulting Surgeon Lincoln General Dispensary,
Lincoln, Jan. 21st. Honorary Surgeon Lincoln County Hospital.

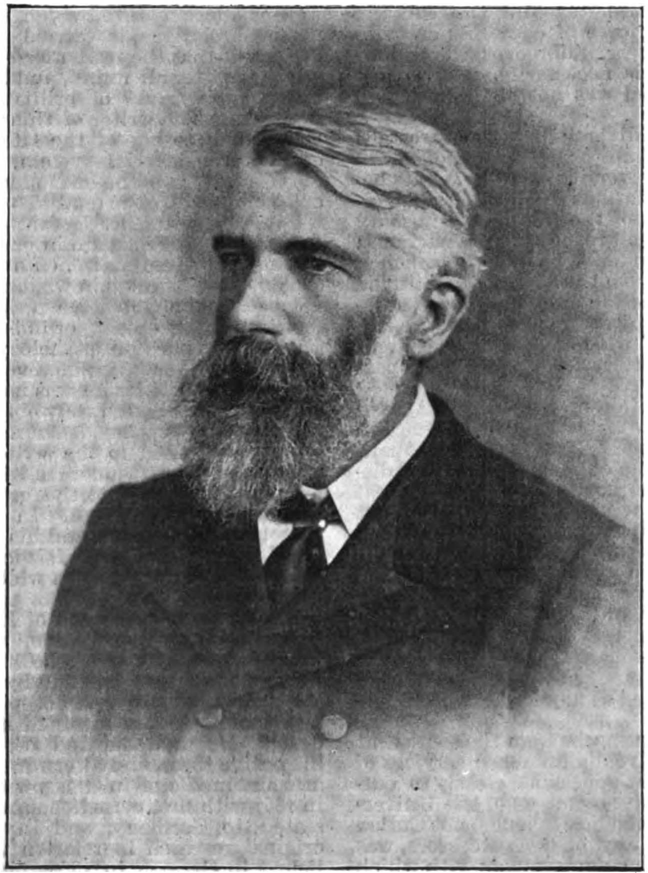
FOREIGN MEDICAL STUDENTS IN FRANCE.—Of 4,495 students registered in the Medical Faculty of Paris in the current academic year, 351 are foreigners. Of these, 15 are Germans, 15 Greeks, 16 Swiss, 60 Roumanians, 67 Turks, and 149 Russians. Of these last, 83 are women. The proportion of foreign students is, therefore, 8 per cent. In the University of Lille, of 465 students registered, 16 are foreigners. Of these, 5 are Bulgarians, 2 Portuguese, 1 Russian, 2 Armenians, 1 Belgian, 2 Turks, 1 Persian, 1 Swede, while 1 is from Alsace-Lorraine. The proportion of foreigners is, therefore, 3.5 per cent.

OBITUARY.

JOSEPH COATS, M.D.,

Professor of Pathology, University of Glasgow.

The too early death of Professor Joseph Coats removes from the University of Glasgow one who, being in the best sense of the words one of her most faithful sons and disciples, had come to be in later years one of the most distinguished of her professors, and an influence for good, both intellectual and moral, among her students second to none. Yet it was only in 1893 that Dr. Coats was admitted to the professoriate, and although for many a year before that he had performed, with general acceptance, almost all the duties assigned to a professor of pathology, it is sad indeed to think that a life so unswervingly devoted to great ends and noble ambitions should have been cut short just when the full enjoyment of the status, as well as the duties, had opened the way for further developments of his admirable and carefully-studied methods and hard-won experience.



Almost thirty years ago it could plainly be perceived, and was actually known to the few who were then in intimate relations with Dr. Coats, that the decided bent of his mind was towards scientific pathology, and that to become a teacher of that subject was the dream of his life. The circumstances under which this purpose was formed could hardly be said to be favourable, except to one whose youthful enthusiasm, and freedom from self-seeking in any unworthy sense, led him to prefer the hard and thorny path to the easy and apparently more profitable one of general practice. At that time the Glasgow Royal Infirmary employed indeed a pathologist for the performance of the very numerous necropsies, and the position was held by a medico-legal expert busily engaged in family practice, an able man undoubtedly, but one from whom anything like organised teaching of pathology could not possibly be looked for. On the other hand the University, as regards the professoriate, was organised entirely on the old basis common at one time to all the universities of Scotland, in which the professors of the institutes of medicine (now of physiology) was supposed to be commissioned to deal with the whole theory of medicine, including physiology, pathology, and a certain amount of the generalities also of therapeutics and hygiene.

But in 1870 Glasgow was still without a professor, even of "general" pathology, and the professor of the institutes of medicine was a very worthy and venerable old gentleman, who most tenaciously held that pathology was a part of his commission, but who was no more competent to teach it according to modern methods, than to teach astronomy or geology. The last Universities' Commission at that date had attempted a compromise, so far as Glasgow was concerned, between the "general" teaching of pathology current in Edinburgh and the only true and fruitful methods, by instructing that candidates for graduation must either have attended a six months' course of "general" pathology or a three months' course of pathological anatomy together with a second course of practice of medicine. Unfortunately, no arrangements of any kind were made, or could be made, for pathological anatomy to be taught at all under the superintendence of the University, as long as the Royal Infirmary pathologistship remained on the footing above referred to. It was, therefore, under these discouraging conditions an act of high and heroic daring for Dr. Coats, immediately after his graduation, to go to Würzburg and Leipzig, in order to become thoroughly equipped under von Recklinghausen and Ludwig as a teacher of a non-existent department (in Glasgow) of the medical art. This, however, Dr. Coats did, and approved himself as so capable, that for a few years, even before the University was transplanted from the High Street to Gilmore Hill, he was placed in a position to be able to initiate a new style of teaching in the old Royal Infirmary. When the Western Infirmary was opened in 1874, Dr. Coats was at once elected pathologist, and an arrangement was entered into by which, though by no means an ideal one, the stubbornness of the old professor of the institutes gave way, and the new pathologist was permitted to rank, academically, as his assistant. And thus, although not in fact a professor, Dr. Coats obtained a monopoly of teaching in his department which really belonged to no professor. So long as he held the pathologistship he was in possession of the materials, and no rival could possibly intervene. On the other hand, his teaching was adopted by the University, under the ordinances of the time, as fully as if he had held a professorship.

It took a strong man to do all this, and it is much to Dr. Coats's credit that he did it without a whisper of dissent from anyone on the ground of inefficiency, or even want of attention to the minutest details of the work. Even the most necessary outfit of a class of pathology of the kind now adverted to is, as every expert knows, both a troublesome and an expensive business. But Dr. Coats's perseverance never flagged. He was determined from the first that pathology should be taught on the best modern lines, and somehow or other the necessary means and apparatus sprang up, as under the wand of a magician. It was all done by what must be called a truly noble spirit of self-abnegation. The income from the class was considerable in the end, but it was freely spent in bringing things more and more towards perfection. Though he had no special gift or grace of eloquence, and was even almost too reticent in general society to be what is called popular, he secured from the first the confidence of the student body, who have generally a pretty clear and correct diagnosis of "the right man in the right place" so far as they are concerned. No one of them ever had the slightest misgiving about Coats. In a perfectly simple and unadorned way he made them to see, and feel, and handle instrumentally and otherwise everything with which his department was concerned; and they had faith in him accordingly as their teacher in a measure given to few, even among teachers of the highest class. It was all so plain and simple to appearance that an outsider might have suspected some peculiar magnetism or trick of the *doctrinaire;* but there was no trick in it at all except that Coats knew his work thoroughly, and his pupils knew that he knew it and could make them know it too.

It became abundantly clear to everyone concerned that so soon as a professorship could be instituted, Dr. Coats, and he alone, was the man to occupy it. But the institution of a Chair was a very difficult, and indeed a most cumbrous, business, which occupied the minds of the University managers for years before it could be brought to a successful issue. The University has been blamed for this, but unjustly, as the present writer thinks, having been pretty well cognisant of all the facts. Even the great social influence and the legal tact and acumen of the late Mr. A. B. Macgrigor, when Dean of Faculties, and all along a most generous friend alike of the University and of the Western Infirmary, was baffled for years in the effort to devise a working arrangement whereby the Professor of Pathology could be secured in anything like the position as regards materials for teaching the subject, occupied by Dr. Coats from sheer force of character and efficiency without the status of professor. Moreover, the endowment of a new full professorship is necessarily an expensive business; and the money required was not forthcoming till comparatively recently.

At length, in 1893, all these difficulties were overcome; and there was not a moment's doubt or hesitation, either in the Court or the Senate of the University as to Dr. Coats becoming the new professor. His relations both with the University authorities and with those of the Western Infirmary had been amicable and mutually self-respecting throughout; and with the whole body of students he was so much a favourite as to have been elected from the first, and continued from year to year, Vice-President of the Students' Representative Council, a body constituted by ordinance under the last Universities Commission, and of which the Vice-President, but not the President, may be drawn from among the past students of the University.

It is somewhat alarming to think now what might have happened, and how much the cause of pathological science in the University might have been hindered, had the first occupant of the Chair of Pathology been a man of a less conciliatory disposition. As it was, Dr. Coats was no sooner firm in his seat than he commenced negotiations for carrying out, by the joint action of the University and the Western Infirmary managers, the splendid Pathological Institute which was formally opened on October 14th, 1896. The proceedings on this occasion were a most pleasing and instructive object lesson as to to the entire cordiality and mutual support of the two governing bodies under the system of (necessarily) "dual control," and from this time onwards the extent and the quality of his resources as Professor of Pathology may be said to have been fully developed, and as well assured as any material arrangements can make them.

It was necessary to make these remarks from the somewhat historic point of view, so that the really immense services of Dr. Coats to his Alma Mater might appear as clearly to outsiders as they are known to the older members of the University of Glasgow. As a teacher of medical science, not Cullen in Edinburgh and Glasgow, nor any of his successors, was more of a creator, in reference to the departments with which they have been associated, than Joseph Coats. And this great position he owed to the simplicity of his aims, the quiet force of his character, the thorough mastery of his subject in detail, and the confidence which everyone reposed in a man who, living ever with a view to great ambitions, never allowed them to be spoiled or soiled by mean and petty personal considerations. It is sad to think that the effect of this great lesson in righteousness, and in the persevering endeavour for a long series of years to perform difficult and complex academic duties newly discovered, should be cut short just as it appeared to have reached its highest point and a promise of years of even more abundant fruition. But the object of these lines is to make sure, as far as may be in the circumstances, that the moral of so admirable an example shall be fully displayed, alike to teachers and to students, and to the medical profession at large.

Dr. Coats was a frequent and a fruitful contributor to the literature of his subject, and almost all his contributions were based upon personal research. In his *Manual of Pathology*, published for the first time in 1883, and now proceeding to a fourth edition under the care of his chief assistant, Dr. Lewis R. Sutherland, there is a careful and reasoned view of the whole subject, as illustrated by the most modern research in a large and philosophic spirit, while at the same time details are everywhere presented in the light, as far as possible, of personal observation. This *Manual* will give the key to his work, and to much other work, in many different directions, and it has already taken its place as a treatise of abiding value, both for students and practitioners. In his *Lectures to Practitioners*, 1888, one particular department of pathology—phthisis pulmonalis—is more exhaustively dealt with; and in every direction it will usually be found that some clear dry light of sound thinking and accurate research is thrown into some dark corner or another, even when it cannot be affirmed that any great original discovery is manifestly set forth. Moreover, Dr. Coats is not only a luminous, but a most readable and interesting expositor of his subject. The even and well-balanced nature, which availed him so much in all his personal relations, is carried into scientific researches, with the result that the reader feels confident of his guide, is led to see the matter all round, and is in no danger of being misled by an *ignis fatuus* of brilliant philosophical or imaginative fireworks. The writer of this notice has had occasion to refer very closely to one of the latest of his contributions on diseases of the arterial system, in the *Journal of Pathology* for 1897 (vol. iv); and he has found it everywhere most informing, and pervaded by the qualities of research above referred to.

For a few years Dr. Coats attempted to combine pathological duties with a specialism in practice; and being a proficient in laryngoscopy almost from its earliest period, he had a not inconsiderable success in what is now a much more largely developed field of lucrative practice. But his object never was money-making chiefly, or indeed at all more than was necessary, and in the end pathology claimed his quite undivided allegiance. As a man, however, of wide sympathies both in religion and politics he was not averse from extraprofessional discussions, though rarely obtrusive and never combative or noisy. He was a Broad Churchman among the Baptists, and often maintained to the writer that in that comparatively small sect there was more religious breadth (or the opportunity for it) than in most of the greater communions whether in England or in Scotland. In the core of him he was an intensely religious man, and his political sympathies were with the Liberal Unionists. His family life was altogether admirable. He is survived by a widow and two girls about 14 and 16 years of age.

Dr. Coats was the son of Mr. William Coats, of Paisley, a somewhat distant relative, we believe, of the two large families of that name who have so largely conduced to the prosperity of that borough by their world-wide reputation as thread manufacturers. Joseph Coats was born in 1846, and had therefore only attained his 52nd year at the time of his death. He was educated at the excellent grammar school in his native town, and afterwards passed through the classes in arts and medicine in Glasgow University, graduating as M.B. in 1867 with first class honours. Thereafter he went, as above stated, to Germany, and in Ludwig's laboratory did some original research in relation to the heart, which was published in German in 1869. At a considerably later period he went over to Paris to look carefully into Pasteur's work, and, from his close association with Lord Lister during the period of pupilage when Lister was Professor in Glasgow and was working out the principles and details of antiseptic surgery, Coats may be said to have been at the very inception of that great philosophical impulse to the art of healing. He took his higher degree of M.D. in 1870, and almost immediately thereafter began the work of his life, as it has been above narrated in brief summary. He became Pathologist to the Royal, and afterwards to the Western Infirmary, and to the Sick Children's Hospital, and latterly was employed also in medico-legal business. He was a member of most of the medical societies related to his subject in Glasgow and in London, and was one of the initiators of the Glasgow Pathological and Clinical Society. In 1888 when the British Medical Association met in Glasgow he was Vice-President, and in the following year President of the Section of Pathology. Indeed, in every kind of medical institution with which he was connected—academic, social, or professional—his influence was always felt, and always to the advantage of medical fellowship and good fellowship. He was the founder of the University Club in Glasgow, and it gave a most pathetic close to his good work done in this world when, on the day before his death, at a house dinner of compliment and congratulation to Principal Story, a message was received from Professor Coats, as the Honorary Chairman of the club, to the effect that although somewhat better, he could not possibly be present at the dinner, but that as he had come to understand clearly that the new Principal "means business," he wished him all success and congratulations accordingly. The very next forenoon poor Joseph Coats breathed his last, on Tuesday, January 24th, 1899. He was buried in the Glasgow Necropolis on the succeeding Friday, amid a great concourse of friends, including the Senate of the University and members of the University Court, extra-academical colleagues, teachers, and students. The Very Rev. Principal spoke a few well-ordered words at the funeral service which faithfully reflected the feelings of all present. "None could know him without feeling that he was one whose heart was clean, whose ways were gentle, whose affections were tender, whose aims were high. The counsels of God are to us often strange—even mysterious. The poet's lament is ever and again verified; 'The good die first, and they whose hearts are dry as summer's dust, burn to the socket.' It is God's will, and God is great. There is One who has said, 'What I do thou knowest not now, but thou shalt know hereafter.' It will be hard to supply the place that he leaves empty among us. He has left a lofty example and a worthy name, of which his University is proud, a memory which we shall always cherish with affectionate regret, work achieved that will long bear wholesome fruit, though he himself has not lived to see it gathered."

The disease which proved fatal to Professor Coats was a malignant tumour in the immediate neighbourhood of the descending colon. He had also had from infancy, an intermittent, and often apparently insignificant, discharge from one ear, the result of some early destructive process in the middle ear. Otherwise his constitution was generally sound, and his frame lithe and vigorous. About three years ago he began to suffer from insidious and wholly unforeseen attacks of febricula, and something more, occurring at irregular intervals, with slight irregularities of the bowels, which drew attention even at that time to the colon, but without any definite diagnosis. In the summer of 1897 he resided for a time in Guernsey, under the supervision medically of his old friend Dr. John Aikman; and in the autumn of the same year he undertook, with his wife, a voyage round the world, which he enjoyed not a little, and from which he appeared on his return to have derived some considerable benefit. He resumed his work, but had to break it off again, and for the last two months before his death was mostly confined to bed. A dangerous-looking attack of obstruction of the bowels occurred about two months before his death, which made it necessary to consider the expediency of an operation, although the more immediate relief was spontaneously obtained, and the critical condition did not recur. By his own desire, therefore, the first step in colotomy was performed, notwithstanding his everyday-growing feebleness, and the separation of the adhesions around the tumour appeared to have afforded a certain amount of relief. The second stage of the operation was about to have been performed, when the somewhat sudden collapse above referred to occurred, and the patient passed quietly away without any more suffering. His fortitude and even-mindedness were shown forth not less in this last illness than in his previous career. His memory will long remain in Glasgow, without alloy of bitterness of any kind, for he was a man as gentle as he was righteous.

W. T. G.

SIR JOHN NUGENT, M.D.,

Late Inspector of Lunatic Asylums, Ireland.

WE have to announce the death of Sir John Nugent, who has just passed away in London, at the great age of 94. Until a few years ago he was a prominent figure in Ireland, where he filled for a long period the office of an Inspector of Lunatic Asylums. His retirement took place about seven years ago, and it is a proof of his extraordinary vitality that he was able to discharge the duties of his office until that time. Only a short time since he was in Dublin, where his many friends were amazed to see him moving about with all the vigour and alertness which belong to fewer years.

Sir John Nugent was in early days apprenticed to a general practitioner in Dublin, and he was fond of recounting the story of the famous duel between Hayes and Brich, at which he was present. He was quite young, and he was invited to accompany his master to the field. The meeting took place in a field outside Dublin, and Brich fell at the first fire and died immediately.

John Nugent grew up in the exciting times of O'Connell and the political movement which he led. He became closely associated with O'Connell, whom to the end he always spoke of reverently as "Mr. O'Connell," and he was acquainted with all the leading spirits of that turbulent time. For the greater part of his life, however, he was an official, and he hardly came into touch with his brethren in the profession except socially. He was a great *raconteur*, and when he was in the mood he could make the past—even as far back as Waterloo—vivid with pictures of the events he had seen and the people he had met. He is very sincerely regretted.

UNIVERSITIES AND COLLEGES.

UNIVERSISY OF CAMBRIDGE.

ASSISTANT TO THE DOWNING PROFESSOR.—Mr. J. L. Tuckett, M.A., Fellow of Trinity College, has been appointed Assistant to Professor Bradbury, in succession to Professor C. R. Marshall, now of St. Andrews.

JOHN LUCAS WALKER STUDENTSHIPS.—At a meeting of the trustees of the John Lucas Walker Studentship in Pathology, held on January 27th, 1889, W. Myers, M.A., M.B., B.C Cantab., B.Sc.Lond., was elected Senior Student, and E. Sydney St. B. Sladen, M.A., M.D.Cantab., was elected Junior Student. Dr. Myers is working under Professor Ziegler at Freiburg; Dr. Sladen is working at the Cambridge Laboratory.

A UNIVERSITY ASSOCIATION.—At a meeting held at Devonshire House on January 31st, under the presidency of the Chancellor, the Duke of Devonshire, it was resolved to establish a Cambridge University Association for the purpose of raising half a million sterling to meet the needs of the University in buildings and endowments. Contributions of £10,000 each were announced from the Chancellor and from Lord Rothschild's firm. The Drapers' Company intimated their intention of contributing £800 a year for ten years in support of a professorship of agriculture.

UNIVERSITY OF EDINBURGH.

THE CAMERON PRIZE.—The Senatus Academicus, on the recommendation of the Medical Faculty, has awarded the Cameron Prize to Dr. Monckton Copeman, of the Local Government Board, London, in recognition of his researches on the employment of glycerine for destroying pathogenic organisms in vaccine lymph. The Cameron Prize may be given annually "to the practitioner or member of the medical profession who shall be judged to have made the most valuable addition to practical therapeutics in the course of the five years immediately preceding, and in determining such question the word therapeutics shall be taken in its widest sense as including every agent or agency capable of influencing the human body in the maintenance or improvement of health, avoidance or cure of diseases, or the alleviation of suffering." The prize is of the value of about £80, and the Prizeman is required to deliver a lecture or course of lectures on the addition to practical therapeutics so made by him, or to publish an account of such addition in such manner as the Senatus Academicus may prescribe. The award in 1897 was to Professor T. R. Fraser, F.R.S., in recognition of his investigations in connection with strophanthus. In 1896 the award was to Professor Macewen, of Glasgow; in 1895 to Professor Behring, in 1893 to Mr. Victor Horsley, F.R.S.; in 1891 to Dr. David Ferrier, F.R.S. In 1892 and 1894 no award was made, presumably because, in the opinion of the Senatus, no addition to practical therapeutics had been made within the period of five years of sufficient importance and value to justify the awarding of the prize.

CONJOINT BOARD IN SCOTLAND.

THE Quarterly Examinations of the above Board were held in Edinburgh in January, with the following results:

First Examination: Four Years' Course.—J. L. Niven, R. Shenton, T. Lynas, R. Elliott, S. Robinson.

One gentleman passed in the division of Elementary Anatomy and 1 in Chemistry. There were 17 candidates.

First Examination: Five Years' Course.—T. J. McKaigney. J. H. Sutherland, M. V. Shanahan, J. H. O'Sullivan, R. Lewis, W. S. R. Dick, J. W. Cross (with distinction), R. L. Williams, J. A. Whitla, H. McMaster, H. Doig (with distinction), P. Watt.

Six gentlemen passed in the division of Physics. There were 20 candidates.

Second Examination: Four Years' Course.—J. W. Dickson, A. J. W. Noble, R. Paterson, J. E. Boon, W. D. Dickson, B. B. Head, K. R. D. Shaw, E. R. Thomas, W. Boyd, H. J. Clague.

One gentleman passed in the division of Anatomy and 1 in Materia Medica. There were 24 candidates.

Second Examination: Five Years' Course.—P. Carroll, W. B. Heagerty, E. Hearn, A. McInnes, H. W. Young, F. A. Georgeson, F. C. Willmott, J. M. Morton (with distinction), J. S. Colquhoun, W. C. M. Burnside, D. McIntyre, J. P. Cameron, K. P. Chatterjee, W. J. Healy (with distinction), A. H. Corley, J. Kean.

One gentleman passed in the division of Anatomy. There were 40 candidates.

Third Examination: Five Years' Course.—J. B. Swinden, H. F. Stillwell, J. T. K. Thomson, F. W. K. Fough, A. E. Ward, W. A. Ogilvy, P. H. Parsons, W. Donovan, W. A. Benson, Edith Anna Wynne-Edwards, C. R. Sutherland, W. J. Morgan, Mary Birrell Davies, W. A. Dawson, G. Evans.

One gentleman passed in the division of Anatomy. There were 25 candidates.

Final Examination.—J. P. Woodhouse, A. C. Turner, F. C. Gould, J. K. Howlett, J. V. Watson, J. Ross, T. L. Wyndham, W. Lloyd, T. A. Chalmers, E. O. Jones, F. Rowland, W. C. E. O'Donoghue, C. Abbott, J. H. Fleming, J. F. Dwyer, J. M. Wood, E. A. Campbell, H. M. Cockcroft, G. Yeoman, J. H. Gibbs, C. F. Graves, E. L. N. Hopkins, A. M. Staunton, Mary Ariel Stewart, J. C. Danaher, M. Halpenny, H. J. Beven, H. Fowler, W. Roper, W. M. Cass, S. Rees, Elsie Rosa Cresswell Taylor, F. M. Black, T. R. W. Atkins, J. E. Kerr, F. P. Walsh, P. J. Van-Coller, K. Datta, G. Parnell, F. P. Lander, J. Barkley, F. E. Dowling, D. F. Schokman, R. C. M. Hoare, C. W. Iliffe, A. F. C. Gilmour, E. Walsh, J. T. Buckley, C. H. Bürger, Lydia Prio Datt, T. J. O'Donovan, J. P. Corcoran, J. G. B. Gowlland.

One gentleman passed in the division of Medicine and Therapeutics. There were 101 candidates.

ROYAL NAVY AND ARMY MILITARY SERVICES.

ARMY MEDICAL STAFF EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

MAJOR, R.A.M. Corps, with one year to complete tour in a Colony, desires an exchange with officer recently home. Address "Zingiber," care of Messrs. Holt and Co., 3, Whitehall Place, S.W.

ROYAL NAVY MEDICAL SERVICE.

FLEET-SURGEON MICHAEL J. MCCARTHY, M.D., has been placed on the retired list, at his own request, January 23rd. He was appointed Surgeon, March 31st, 1877; Staff-Surgeon, March 31st, 1889; and Fleet-Surgeon, May 24th, 1898. As Surgeon of the *Carysfort* he served with the Royal Marine Battalion during the operations in the Eastern Soudan in 1884; received the Egyptian medal and Khedive's bronze star.

Fleet-Surgeon **GODFREY GOODMAN**, R.N. (retired), whose death is announced as having occurred on January 20th, at his residence, Coombe House, Weaver Collompton, Devon, entered the Royal Navy as Surgeon in September, 1859; became Staff-Surgeon in January, 1869; and Fleet-Surgeon in October, 1879, and retired in February, 1890. He was specially promoted for his valuable services during outbreaks of yellow fever in the West Indies. During the Egyptian war, 1882, he served as Fleet-Surgeon on board the *Euphrates* (Egyptian medal, Khedive's bronze star).

The following appointments have been made at the Admiralty: **CHARLES J. E. COCK**, Surgeon, to the *Revenge*, January 31st; **WILLIAM J. CODRINGTON**, M.B., Surgeon, to the *Raleigh*, January 31st.

Staff-Surgeon **SAMUEL KEAYS**, R.N., has been promoted to Fleet-Surgeon in Her Majesty's Fleet, with seniority of January 3rd, 1899.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANTS S. L. CUMMINS, M.B., and **H. G. F. STALLARD**, are seconded for service with the Egyptian army, January 7th.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL G. F. NICHOLSON, M.D., Bengal Establishment, has retired from the service, from February 23rd. He was appointed Surgeon, March 30th, 1878, and became Surgeon-Lieutenant-Colonel, March 30th, 1898.

MEDICO-LEGAL.

A CURIOUS CASE.

AT the County Court, Longford, last week, Dr. Kenny, Medical Officer of Granard Workhouse, sued Dr. Wilson of Edgeworthstown for £2 2s.—a consultation fee. It appeared that Dr. Wilson was called to see a man who had received a fracture of the skull, and who was taken to the police barrack. He telegraphed to Dr. Kenny to come and see the patient in consultation, and the plaintiff did so. The case was not sent for trial by the magistrates, and Dr. Wilson only was examined before them. He was paid, but, as the case did not go further, and Dr. Kenny was not examined, he got no fee from the authorities. He then brought his claim against Dr. Wilson. The judge dismissed the case on the merits.

DISPENSARY DOCTOR'S ACTION FOR LIBEL.

AN application was made the other day to the Irish Court of Queen's Bench to send a case of libel to the Donegal Assizes for trial, and this was done. The plaintiff is Dr. Kelly, and the defendants William Colhoun, John Molloy, and Patrick McLoone. The first-named is a newspaper proprietor; the other two are members of the Glenties Dispensary Committee. An inquiry had been held into charges made against Dr. Kelly, and when the result was communicated to the Committee a resolution was passed expressing dissatisfaction with the result, and asking the Local Government Board to consider the "succession of cases of deaths of newly-born infants and their mothers in Dr. Kelly's district" with a view to reviewing their recent decision. The plaintiff claims damages for the innuendoes that he had been guilty of an indictable offence.

SUCCESSFUL ACTION FOR LIBEL.

IN the case of Vallance *v.* Terrett, heard on January 30th, in the Queen's Bench Division, before the Lord Chief Justice and a special jury, Dr. T. J. Vallance, who for more than thirty years held the appointment of medical officer to West Ham Union Workhouse and Schools, sued Mr. J. J. Terrett, a meat salesman, residing at Forest Gate for damages for libel. It appeared that at or about the end of March last the defendant issued a large poster in which he characterised certain notes written by Dr. Vallance with regard to children in the workhouse schools as "brutal replies." The poster added that "the Board has asked this monster to resign, but we know on good authority an attempt is to be made to reinstate him at the next meeting." The poster further asked persons to vote for two candidates, whose names were mentioned, "and prevent the reappointment of this brute." The facts as to the notes were, according to the opening statement of counsel on behalf of the plaintiff, that the Visiting Committee to the Workhouse Schools desired the Superintendent to make inquiries of Dr. Vallance with regard to certain children. The Superintendent jotted down the names and details of the inquiries, and left the list on the surgery table. Dr. Vallance wrote on the margin brief answers and comments. This paper, which was not intended to be a formal report, but merely for the information of the Superintendent, was, however, by him brought before the committee of the guardians, and by it before the Board of Guardians. After a debate, which was described as fierce, the Board, without asking the plaintiff for an explanation, called upon him for his resignation The debate was reported in the papers, and an election of guardians was then pending. It was at or about this time that the defendant, who was said to be a Councillor for West Ham, published the placard which was the subject of the action. The plaintiff was subsequently reinstated in his position by the Board, and continued to discharge the duties of his office for some time. He ultimately resigned upon a pension. The defendant admitted publication, that the words were defamatory, that there was no ground for the accusation, expressed regret for publishing the libel, and brought into Court £20, which he considered was sufficient to satisfy the plaintiff's claim. The evidence of the plaintiff and of another witness having been heard, the counsel for the defendant, who called no witnesses, addressed the jury in mitigation of damages. The jury returned a verdict for the plaintiff for £150, and the Lord Chief Justice gave judgment for this sum, less the £20 paid into Court. Messrs. Hempson, solicitors to the Medical Defence Union, acted for the plaintiff.

A VACCINATION CASE.

THE QUEEN V. WEBB AND ANOTHER: EX PARTE HAWKER.

THIS law case is of considerable interest and importance. Of late years one of the methods of antivaccination propagandism has been to take advantage of the prosecution of defaulters as an opportunity for haranguing benches of magistrates, and through them the public, on the subject of antivaccination in general. Two justices of the Tewkesbury Division of the County of Gloucester, Colonel Webb and Mr. V. W. Yorke, seem to have been so seriously victimised in this fashion that at length, like the proverbial worm, they turned, and determined to listen to no more general oratory. The circumstances as reported were briefly as follow. A retired Baptist minister, the Rev. Arthur Graham, appeared before the two justices in January, 1898, on behalf of various parents who had neglected to procure the vaccination of their children. On his application the summonses were adjourned for about two months on the ground that there was an epidemic of scarlet fever in the neighbourhood. On March 24th he again presented himself, and, upon the hearing of a summons against one of the other defendants, he, as stated on affidavit by the justices, addressed them at great length on the subject of vaccination. After hearing him for some time, he was requested to adduce facts or arguments bearing on the particular case, and to show reasonable ground why the order for vaccination should not be obeyed. This he declined to do, telling the justices that they were bound to sit and listen to anything which he might choose to say or read, and he proceeded accordingly. Ultimately they informed him that they could listen no longer to general statements, and that unless he had some reasonable explanation for disobeying the order, he must sit down. Mr. Graham, however, persisted in introducing totally irrelevant matter, and used disrespectful and abusive language towards the justices, who, after repeated warnings, asked him to leave the court, which he did on being approached by a police officer. At this time, however, the case of Hawker and other defendants had not been heard, and the justices adjourned the relative summonses for fourteen days, and caused the persons interested to be informed of the adjournment and stating that the summons would be finally heard in any event. On April 7th, when the summons came on again, the Rev. Arthur Graham again appeared for the defendants, and, in defending one case, followed the same course as before. After submitting for some time the justices closed the case and fined the defendant 5s. and costs. Mr. Graham, as the justices reported, strongly objected, continued to use abusive and disrespectful language, and persistently interrupted the solicitor while he was examining the vaccination officer in the next case. Finally they directed the reverend advocate to be removed from the court, and he then left and did not return. All this time Hawker's case had not been heard, and when called he did not appear. Evidence having been read, he was convicted and fined 5s., with 9s. costs.

The question before the Queen's Bench Division was whether this conviction should be quashed, and the decision is noteworthy. Mr. Justice Lawrance said that, in his opinion, the justices were perfectly right, and that he failed to see what other course they could have adopted. They had grown tired of hearing Mr. Graham air his views on vaccination at large, and had civilly asked him to apply his principles to the particular case. Persisting in his own course and becoming abusive, he was told that he would not be heard, and upon the approach of a police-constable he left the court. The argument on the other side was that it was not enough for an advocate to misbehave in one case, but that he must have an opportunity of misbehaving himself in each case. This argument Mr. Justice Lawrance said was its own refutation. The cases having been adjourned in order that the defendants might have an opportunity of appearing by some advocate not quite so reverend and not quite so abusive, at the adjourned hearing the same advocate appeared and the same farce was gone through. The local justices considered, as any Court would do, that the defenders had no reason for their disobedience, since they had put forward an advocate who would give no reason.

Mr. Justice Channell said he entirely agreed in what Mr. Justice Lawrance had said. He desired, however, to add that the applicant or his advisers had purposely concealed from the Court, when the rule *nisi* was moved, what the real point was; and, in his opinion, that in itself afforded ample ground for discharging the rule.

Mr. Schultess Young, who appeared on behalf of Hawker, is a well-known antivaccinationist, and is frequently engaged in defending cases before the law courts. The decision given by the Queen's Bench Division is most valuable and most wholesome, and is worth bearing in mind by benches of justices throughout the country, wherever similar antivaccination tactics are adopted.

ACTION AGAINST A MEDICAL MAN: VERDICT FOR THE DEFENDANT.

AT the Wolverhampton County Court, before his Honour Judge Young, William Pike, a stable boy, claimed £25 damages from Mr. W. J. Bebb, L.R.C.P. & S.Ed., Wolverhampton, who, as it was alleged, whilst employed to extract a decayed tooth on November 9th, 1898, carelessly extracted another and perfectly sound tooth, and caused plaintiff a severe illness. Mr. Bebb, after evidence had been given in support of the plaintiff's case, said the second tooth was drawn because it was adherent to the first one, He visited the plaintiff the same night and plugged the socket of the extracted tooth with cotton-wool soaked with tincture of iron. Mr. Cotterill, assistant house-surgeon at the hospital, stated that when the plaintiff came to the hospital he found a cavity at the back of the left lower jaw and the remnants of some cotton-wool plugging. He could not detect that defendant had been guilty of any neglect. Mr. Vincent Jackson stated that in his opinion there was no evidence of negligence on defendant's part. The judge gave a verdict for the defendant.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,762 births and 3,716 deaths were registered during the week ending Saturday last, January 28th. The annual rate of mortality in these towns, which had declined from 19.1 to 18.2 per 1,000 in the three preceding weeks, further fell to 17.0 last week. The rates in the several towns ranged from 12.0 in West Ham, 12.9 in Cardiff, 13.5 in Croydon, and 14.4 in Halifax to 22.2 in Sunderland, 22.6 in Preston, 23.3 in Liverpool, and 23.8 in Plymouth. In the thirty-two provincial towns the mean death-rate was 17.7 per 1,000, and exceeded by 1.9 the rate recorded in London, which was only 15.8 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.5 per 1,000; in London the rate was equal to 1.4 per 1,000, while it averaged 1.6 in the thirty-two provincial towns, among which the highest zymotic death-rates were 2.4 in Salford and in Gateshead, 2.7 in Halifax, 2.8 in Nottingham, and 2.9 in Sunderland. Measles caused a death-rate of 1.1 in Nottingham, 1.2 in Manchester, and 1.3 in Bolton; scarlet fever of 1.5 in Gateshead; whooping-cough of 1.1 in Bristol and in Halifax, 1.2 in Croydon, and 1.4 in Birkenhead and in Sunderland; and "fever" of 1.1 in Halifax. The 71 deaths from diphtheria in the thirty-three towns included 31 in London, 8 in Leeds, 6 in Sheffield, 4 in Liverpool, 4 in Hull, 3 in West Ham, 3 in Swansea, and 3 in Leicester. No fatal case of small-pox was registered during the week under notice, either in London or in any of the thirty-two large provincial towns; and no small-pox patients were under treatment in any of the Metropolitan Asylums Hospitals The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had declined from 2,939 to 2,749 at the end of the four preceding weeks, had further fallen to 2,679 on Saturday last, January 28th; 220 new cases were admitted during the week, against 291, 220, and 249 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, January 28th, 880 births and 676 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 21.7 and 21.3 per 1,000 in the two preceding weeks, rose again to 22.1 last week, and was as much as 5.1 per 1,000 above the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 18.3 in Paisley and 20.2 in Edinburgh to 23.9 in Greenock and 24.9 in Leith. The zymotic death-rate in these towns averaged 2.6 per 1,000, the highest rates being recorded in Aberdeen and Leith. The 330 deaths registered in Glasgow included 7 from measles, 7 from scarlet fever, 4 from diphtheria, and 12 from whooping-cough. Four fatal cases of measles, 3 of scarlet fever, and 9 of whooping-cough were recorded in Edinburgh; and 2 deaths from diphtheria and 2 from "fever" occurred in Leith.

IT is announced that the Russian Government contemplates sending an expedition to Samarkand and Merv to investigate and report upon the recent outbreaks of malarial fever which have greatly alarmed the inhabitants of those districts.

MEDICAL NEWS.

MR. J. MACKENZIE DAVIDSON has been appointed Medical Officer in Charge of the Roentgen Ray Department at the Royal Ophthalmic Hospital, Moorfields, E.C.

AT the meeting of the Zoological Society of London for scientific business on Tuesday, February 7th, Mr. F. E. Beddard, F.R.S., will read a paper on the Cerebral Convolutions of the Gorilla.

THE Vienna Medical Club has voted the sum of three hundred gold crowns for the foundation of a prize in memory of Dr. Hermann Franz Müller, who died of plague not long ago.

WE are asked to state that a club, to be called the Irish Club, is about to be opened in premises taken at the Cockburn Hotel, 13, Henrietta Street, Strand, W.C. The club is to be absolutely non-political and non-sectarian, and is designed to afford an opportunity of friendly intercourse between Irishmen, not only resident in London but visiting the metropolis. Further particulars can be obtained from the Honorary Secretaries at the address mentioned.

LECTURES ON TERATOLOGY AND ANTENATAL PATHOLOGY.—On the recommendation of the Medical Faculty and Senatus Academicus of the University of Edinburgh and with the permission of the University Court, Dr. J. W. Ballantyne, Lecturer on Midwifery and Gynæcology in the Medical College for Women, Minto House School, will deliver a series of six lectures on Teratology and Antenatal Pathology in the new medical buildings of the University. The lectures, which are free to the members of the medical profession and senior students, will be given in the Medical Jurisprudence Classroom at 5 P.M. on Fridays, beginning on February 3rd.

LUTON BUTE HOSPITAL.—From the annual report of the Committee of Management it appears that during 1898 203 patients—109 male and 94 female—were admitted to the hospital, 10 being children under 13 years of age; that of the 203 cases 172 were discharged as cured or relieved, whilst 13 died. There were 53 accident cases—a record number. The expenditure during the year was £911 1s. 5d., whilst the income was £1,040 0s. 8d. The funded property of the hospital has of late been steadily growing. The work required of the matron and nurses during the past year has been very great, and suggestions for increasing the nursing staff were made at the recent annual meeting.

THE GERMAN CONGRESS OF INTERNAL MEDICINE.—The seventeenth Congress of Internal Medicine will be held at Carlsbad from April 11th to 14th under the presidency of Professor Quincke of Kiel. The following are among the subjects proposed for discussion: Insufficiency of the Heart Muscle, to be introduced by Professors L. von Schrötter of Vienna and Martius of Rostock; Leukæmia and Leucocytosis, to be introduced by Professor Löwit of Innsbruck and Minkowski of Strassburg. Communications are also promised by Dr. Theodor Schott of Nauheim, von Noorden of Frankfort, Nothnagel of Vienna, Escherich of Graz, von Jacksch of Prague, Stokvis of Amsterdam, and many others. In connection with the Congress there will be an exhibition of apparatus, preparations, etc.

PRESENTATION TO DR. COUPLAND.—A number of Dr. Sidney Coupland's friends, including most of his late colleagues and pupils, and not a few ladies, assembled in the large lecture theatre of the Middlesex Hospital Medical School on January 28th to present to him a testimonial in the shape of a handsome set of silver plate. The occasion was his retirement from the Middlesex Hospital and Medical School, on his appointment to be a Commissioner in Lunacy. At the same time a diamond and sapphire pendant was given to Mrs. Coupland. The presentation was made by Dr. Cayley in a few well-chosen words; and, in replying, Dr. Coupland expressed his great gratification at this mark of esteem, and said that, though no longer a member of the staff, he would always feel affection and gratitude for the institution in which he had so long worked. After the ceremony, the new school buildings, which are nearly completed, were lit up for the first time, and the visitors had an opportunity of inspecting them.

MEDICAL VACANCIES.

The following vacancies are announced :—

BELFAST DISTRICT ASYLUM.—Assistant Medical Officer, unmarried, and not to exceed 33 years of age. Salary, £100 per annum, and £50 in lieu of rations, with furnished apartments, fuel, light, washing, and attendance. Applications to the Medical Superintendent by February 11th.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—Pathologist. Applications to the Secretary by February 6th.

COVENTRY: COVENTRY AND WARWICK HOSPITAL.—Senior House-Surgeon. Salary, £100 per annum, with rooms, board, washing, and attendance. Applications to the Secretary by February 15th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Assistant Dental Surgeon. Applications to the Secretary by February 13th.

GOLD COAST.—Medical Officers for the West African Frontier Force for Temporary Service. Salary at the rate of £350 a year. Appointment for one year, at the end of which time he will, if he has given satisfaction, receive a gratuity of £100, or may be placed on the regular establishment. Unmarried, between 25 and 35 years of age. Personal applications to the Assistant Private Secretary at the Colonial Office.

GUILDFORD: ROYAL SURREY COUNTY HOSPITAL.—Resident House-Surgeon. Salary, £80 per annum, with board, residence, and laundry. Also Assistant House-Surgeon. Salary, £30 per annum, with board, residence, and laundry. Applications to the Honorary Secretary by February 24th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Surgeon to Out-patient Department. Appointment for six months, but eligible for re-election. Salary, 25 guineas. Applications, on forms provided, to the Secretary by February 21st.

HUDDERSFIELD INFIRMARY.—Junior House-Surgeon. Salary, £40 per annum, with board, lodging, and washing. Applications to the Secretary by February 9th.

KENT COUNTY LUNATIC ASYLUM, Barming Heath, near Maidstone.—Fourth Assistant Medical Officer and Pathologist; unmarried. Salary, £175 per annum, rising £5 a year, with furnished quarters, attendance, coal, gas, garden produce, and washing. Appointment for two years. Applications to the Superintendent by February 16th.

LEICESTER INFIRMARY.—Assistant House-Surgeon. Honorarium of £42 a year, with board, residence, and washing. Applications to the Secretary, 24, Friar Lane, Leicester, by February 18th.

LIVERPOOL SCHOOL OF TROPICAL DISEASES (University College, Liverpool, and the Liverpool Royal Southern Hospital).—Lecturer in Tropical Diseases at University College. Will also be appointed Honorary Consulting Physician to the Royal Southern Hospital. Salary, £250 a year and proportion of students' fees. Applications to Professor Boyce, University College, Liverpool, by February 27th.

MORPETH DISPENSARY.—House-Surgeon. Salary, £120 per annum, with furnished rooms, coal, and gas. Must be prepared to take office March 16th. Applications to N. I. Wright, Honorary Secretary, Beechfield, Morpeth, Northumberland, by February 16th.

NATIONAL ORTHOPÆDIC HOSPITAL, 234, Great Portland Street, W.—Surgical Registrar. Applications to the Secretary by February 18th.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—Assistant to House-Surgeon. Appointment for six months. Honorarium, £20, with board, lodging, and washing. Applications to the Secretary by February 7th.

PARISH OF LAMBETH.—District Medical Officers for No. 6 and No. 8 Districts. Salaries £90 and £80 respectively, with extra fees. Applications, endorsed "Appointment of Medical Officer," to the Clerk by February 11th.

PLAISTOW: ST. MARY'S CHILDREN'S HOSPITAL.—Assistant Resident Medical Officer. Appointment for six months. Salary at the rate of £50 per annum, with board, lodging, and washing. Applications to the Secretary by February 7th.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road, N.W.—Assistant Resident Medical Officer. Appointment for four months. Salary at the rate of £50 per annum, with board, residence, and washing. Applications to the Secretary by February 13th.

READING: ROYAL BERKS HOSPITAL.—Assistant Medical Officer. Board, lodging, and washing provided. An honorarium of 10 guineas. Appointment for six months. Applications to the Secretary.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Physician. Must be F.R.C.P.Lond. Applications to the Secretary by February 14th.

ST. MARK'S HOSPITAL FOR FISTULA AND OTHER DISEASES OF THE RECTUM, City Road, E.C.—House-Surgeon. Salary, £50 per annum, with board and lodging. Applications to the Secretary by February 18th.

ST. MARY'S HOSPITAL, PADDINGTON, W.—Casualty Physician. Salary, £75, must be M.R.C.P.Lond. Applications to the Secretary by February 6th.

SHEFFIELD UNION INFIRMARY.—Resident Assistant Medical Officer for the Workhouse, Fir Vale, Pitsmoor. Not under 26 years of age. Salary, £100 per annum, with apartments, rations, and usual allowances. Also Junior Assistant Medical Officer. Appointment for six months. Honorarium, £12, with furnished apartments, board, and washing. Applications to the Clerk to the Guardians, Union Offices, Sheffield, by February 8th.

WEST BROMWICH DISTRICT.—Resident Assistant House-Surgeon. Appointment for six months. Board, lodging, and washing provided. Gratuity, £20. Applications to the Secretary.

MEDICAL APPOINTMENTS.

ABLETT, Ed., M.D., appointed Honorary Consulting Surgeon to the Whitehaven and West Cumberland Infirmary.

ALLPORT, W., M.B., B.S.Lond., M.R.C.S.Eng., appointed Junior House-Surgeon to the Birmingham and Midland Eye Hospital.

BAILEY, John George, M.B., C.M.Edin., appointed Senior House-Surgeon to the Bury Hospital.

BARNARD, Harold L., M.S.Lond., F.R.C.S.Eng., appointed Assistant-Surgeon to the Metropolitan Hospital, Kingsland Road; and also as Surgical Tutor to the London Hospital.

BATE, George Paddock, M.D., appointed Consulting Physician to Queen Adelaide Dispensary, *vice* Dr. W. Munk, deceased.

BATTEN, Fredk. E., M.A., M.D.Cantab., M.R.C.P.Lond., appointed Pathologist to the National Hospital for the Paralysed and Epileptic, Queen Square, *vice* Dr. Risien Russell, appointed Assistant-Physician.

BRAMWELL, Edwin, M.B., C.M., appointed Junior House-Physician to the National Hospital for the Paralysed and Epileptic, Queen Square, *vice* J. S. Collier, promoted to the Senior Post.

BURROW, V., M.B., B.S.Durh., appointed Medical Officer for the Second District of the Aylesbury Union, *vice* H. P. Gilbert, L.R.C.P.Edin., M.R.C.S., resigned.

CLEMENTS, S. D., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Farnley District of the Bramley Union, *vice* G. M. Sharpe, L.F.P.S.Glas., resigned.

COATES, R., M.R.C.S.Eng., L.R.C.P., appointed Medical Officer for the Barford District of the Bedford Union, *vice* C. Sprigge, M.D., resigned.

CRAWFORD, J. J., M.B., B.Ch.Univ.Dub., appointed Resident Medical Officer to the Victoria Hospital, Burnley.

DAVIDSON, James Mackenzie, M.B., C.M., appointed Honorary Medical Officer in charge of the X Ray Department, Royal London Ophthalmic Hospital, Moorfields.

DENT, E. A., M.B., appointed Medical Officer for the Third District of the Cheltenham Union.

DINGWALL, A., M.B., appointed Medical Officer for the Kinsham District of the Kingston Union.

GENT, William Conway, L.R.C.P., L.R.C.S.Edin., appointed Public Vaccinator for the Knowle Registration District by the Guardians of the City and County of Bristol.

[illegible], T., M.B., C.M.Edin., appointed Senior House-Surgeon to the Birmingham and Midland Eye Hospital.

HOPKINS, H. Culliford, M.R.C.S.Eng., L.R.C.P.Edin., appointed Medical Officer for the No. 2 District of the Bath Union, *vice* Caleb Barrett, F.R.C.S.Eng., resigned.

INGRAM, A., M.B., appointed Assistant Resident Medical Officer to the Birkenhead Union Workhouse, *vice* Mr. T. Gibson, resigned.

LAPTHORN, C. A., F.R.C.S., appointed Medical Officer and Public Vaccinator for the Littlehampton District of the East Preston Union.

MORGAN, Naunton, M.R.C.S., L.R.C.P., appointed Medical Officer and Public Vaccinator for the Tonyrefail and Gilfach Goch District of the Pontypridd Union.

MURIEL, G. J., M.R.C.S.Eng., appointed Honorary Consulting Surgeon to the Whitehaven and West Cumberland Infirmary.

NEVILL, W. N., B.A., Ch.B.Dub., appointed Public Vaccinator for the Bedminster Registration District by the Guardians of the City and County of Bristol.

O'DOWD, J. A., M.R.C.S., L.R.C.P.Lond., appointed Assistant Medical Officer to the Parish of Birmingham Workhouse.

PROUDFOOT, Frank G., M.A.St.And., M.B.&C.M.Edin., Oxford, appointed Examiner in Materia Medica for the Degrees of M.B., B.Ch., at the University of St. Andrews.

RAPER, M. H., M.D.Lond., appointed Medical Officer for the Wakering District of the Rochford Union.

THOMPSON, Henry E., M.B.Lond., M.R.C.S.Eng., appointed Resident Surgical Officer to the Birmingham and Midland Eye Hospital.

WALTER, B. W., L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer for the South Shoebury District of the Rochford Union.

WOAKES, Claud, M.R.C.S., L.R.C.P., appointed Surgeon to the London Throat Hospital.

DIARY FOR NEXT WEEK.

MONDAY.

Royal College of Surgeons, 5 P.M.—Professor L. E. Hill: On Researches on the Influence of Gravity on the Circulation. (Lecture I.)

Odontological Society of Great Britain, 40, Leicester Square, W.C., 8 P.M.—Dr. William Hunter: On the Relation of Dental Diseases to General Diseases; and casual Communications by Messrs. Leonard Matheson, W. Rushton, and Theodore Harris.

Medical Society of London, 8.30 P.M.—Dr. Samuel West: Some of the Clinical Aspects of Granular Kidney.

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Dr. Seymour Taylor: The Examination of the Thoracic Viscera.

TUESDAY.

West End Hospital for Diseases of the Nervous System, 73, Welbeck Street, W., 4 P.M.—Dr. Fletcher Beach: Cases of General Paralysis of the Insane and Allied Disorders.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C., 3.30 P.M.—Dr. Beevor: On the Actions of Muscles.

Roentgen Society, 11, Chandos Street, Cavendish Square, W., 8 P.M.—Mr. Wilson Noble: On a Modified Form of Toepler Mercury Pump. The President (Dr. C. W. Mansell Moullin) will open a discussion on the Roentgen Ray Photography of Soft Tissues.

Pathological Society of London, 8.30 P.M.—Dr. G. F. Still: Congenital Hypertrophy of Pylorus. Mr. S. G. Shattock: Dilatation of Œsophagus. Dr. W. S. Lazarus-Barlow: Dilatation of Œsophagus. Mr. Stanley Boyd: Alveolar Sarcoma of Rectum. Dr. Rolleston: Carcinoma of Cardiac Orifice of Stomach. Dr. H. Morley Fletcher: Adenoma of Brunner's Glands. Dr. C. D. Green: Umbilical Polypus. Dr. P. Weber: Diffuse Syphilitic Change in the Liver. Card Specimens will be shown by Drs. E. Cautley, Morley Fletcher, Rolleston, Lazarus-Barlow, Weber, and Mr. H. B. Hickman.

WEDNESDAY.

Royal College of Surgeons, 5 P.M.—Professor L. E. Hill: On Researches on the Influence of Gravity on the Circulation. (Lecture II.)

South-West London Medical Society, Stanley's, 235, Lavender Hill, Clapham Junction, 8 P.M.—Dr. Charles J. Arkle: Some Points in the Treatment of Tuberculosis.

The Sanitary Institute, 8 P.M.—Discussion on the Supply of Water to London by the Welsh Scheme, to be opened by Mr. R. E. Middleton.

Evelina Hospital, S.E., 4.30 P.M.—Dr. W. Soltau Fenwick: Clinical Lecture on Vomiting in Infancy and Childhood. (Post-graduate Course.)

Hospital for Consumption and Diseases of the Chest, Brompton, 4 P.M.—Dr. Fowler: On the Influence of other Diseases upon Pulmonary Tuberculosis.

THURSDAY.

Charing Cross Hospital, Post-Graduate Course, 4 P.M.—Mr. Waterhouse: Demonstration of Surgical Cases.

London Temperance Hospital, 2 P.M.—Dr. Soltau Fenwick: Clinical and Pathological Demonstration to Senior Students.

British Gynæcological Society, 8.30 P.M.—Specimens will be shown by Dr. Bantock, Dr. H. Jellett, Dr. Snow, and Mr. J. F. Jordan. Papers—Professor Mayo Robson: Complete Removal of the Sac in a case of Extrauterine Gestation. Dr. Macpherson Lawrie: Notes on a case of Extrauterine Pregnancy.

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Dr. Seymour Taylor: The Examination of the Thoracic Viscera. (Lecture II.)

FRIDAY.

Royal College of Surgeons, 5 P.M.—Professor L. E. Hill: On Researches on the Influence of Gravity on the Circulation. (Lecture III.)

Clinical Society of London, 8.30 P.M.—Mr. W. G. Spencer: Tuberculous Cavities in the Lungs giving rise to Gaseous Metastatic Abscesses. Dr. Barlow and Dr. F. E. Batten: A case of Myopathy, with Necropsy, in a boy of 5; illustrated by Microscopical Specimens and Lantern Slides. Mr. J. E. Lunn: Some Results of Operation for Enlarged Prostate. Mr. H. Betham Robinson: Hydatid Cysts of the Upper Lobe of the Right Lung and Liver successfully Removed.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to insure insertion in the current issue.

BIRTHS.

FARQUHAR.—On January 30th last, at Burbage, Marlborough, the wife of James Farquhar, M.D., of a daughter.

GRIFFITH.—On January 27th, at 43, Park Square, Leeds, the wife of T. Wardrop Griffith, M.D., of a son.

MARRIAGES.

CLARKE—GEE.—On January 19th, at St. John the Baptist's, Leicester, Astley Vavasour Clarke, M.D.Cantab., of Leicester, to Ethel Mary, eldest daughter of H. Simpson Gee, J.P., of Knighton Frith, Leicester.

DE LESSERT—ROBBERDS.—At St. Mary's, Arbroath, on January 25th, by the Rev. J. M. Danson, D.D., Rector of St. Andrew's, Aberdeen, Alfred Alexander De Lessert, L.D.S., 220, Union Street, Aberdeen, to Amy Caroline, only daughter of the late Rev. Frederick Robberds, of Saltford, Somerset.

DEATHS.

DAVY.—On January 21st, at Morrab Villa, Penzance, Humphry Davy, M.D., aged 60.

LUNDIE.—At the Willows, Relugas Road, Edinburgh, on January [illegible], William [illegible] Lundie, M.A., B.Sc., M.D., of 3, Glengyle Terrace. All friends will please accept this intimation.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are directed will be found under their respective headings.*

QUERIES.

MESMER would be glad to know the name of a good modern work on pellagra. What is wanted is an up-to-date description of the symptomatology and pathology of the disease.

DR. J. H. KEPPEL-COMPTON (Southampton) would be glad to hear where he could buy a modern reprint or engraving of Jenner, the discoverer of vaccination.

AN OLD MEMBER asks for advice in the treatment of a patient, about 70 years of age, who suffers from gouty heart and is able to take very little exercise. Whenever he sits down, even after a fair night's rest, he falls asleep and remains in a profound torpor for some time, and then wakes up startled and bewildered and terribly distressed and depressed.

E. M. H. asks whether there is any hospital or institute in London where he could receive instruction in Roentgen ray photography.

*** We understand that a class is about to be established at Charing Cross Hospital Medical School, Chandos Street, and our correspondent might communicate with Mr. Mackenzie Davidson, the medical officer in charge.

RELIEF OF LIGHTNING PAINS.

J. C. J. will be grateful for suggestions for the relief of "lightning pains" occurring in an elderly patient without a history of syphilis. Antipyrin, citrate of caffeine, and similar remedies have been employed without much benefit.

RIGA'S DISEASE.

DR. J. W. PLAXTON (Lunatic Asylum, Kingston, Jamaica) asks to be referred to an account of Riga's disease:

*** The following entry appears in the Table of Eponymic Diseases in Dr. G. M. Gould's *Dictionary of Medicine, Biology, and Allied Sciences*:—*Part Affected*: Mouth. *Symptoms*: Aphthous eruption beneath the tongue; painless; grave constitutional symptoms; emaciation; exhaustion; earthy pigmentation of skin; death. *Pathology*: Ulcer, gray in colour, with irregular and poorly-defined borders: enlargement and fatty degeneration of liver and spleen. *Etiology*: Heredity; characteristic bacilli. *Synonyms*: Cachetic aphthæ.

PRIVATE PRACTITIONER'S ATTENDANCE ON PAUPER PATIENTS.

A. B., a private practitioner, writes, saying that the district medical officer of the parish in which he (A. B.) resides lives five miles off, and that he, being on the spot, is frequently summoned to urgent cases which occur amongst the paupers, for attendance on whom, as he says, the district medical officer is paid. "A. B." wishes to know whether he can get paid by the guardians for the work he describes, and asks whether we advise him to attend such urgent cases in the future if applied to do so.

*** As "A. B." holds no Poor-law appointment, it is no part of his duty to attend any pauper patient, and even if he does so he is not likely to receive any remuneration from the guardians. He must, however, judge for himself as to whether it is advisable for him to decline attendance on any urgent case (pauper or not). We think this very questionable.

ANSWERS.

W.M.—It is generally supposed that most preparations of the kind mentioned contain from 6 to 10 per cent. of alcohol, but we are not in a position to say positively that such is the case.

PRACTICAL would find some hints in *Respiratory Exercises in the Treatment of Disease*, by Dr. Harry Campbell (London: Baillière, Tindall, and Cox. 1898. 7s. 6d.), or in *The Elements of Physical Education*, by David Lennox, M.D., and A. Sturrock (Edinburgh and London: Blackwood and Sons. 1898. 4s).

LAMBDA.—Appointments under the Poor Law, etc., are not transferable as a matter of course; the purchaser of a practice may fairly gauge the chances. The whole income stated in a purchase is more or less dependent on the purchaser for its realisation, and he must value the amount from his own judgment.

G.E.B.—The request is unusual, and it appears to be at least doubtful whether it is made with official authority. Under these circumstances we should recommend our correspondent not to comply with the request without further information as to the purpose for which the information is required, and by whose authority the request is made.

MEMBER X., J. M.—Our correspondents no doubt received the notice as to the employment of unqualified persons as assistants or otherwise, issued by the General Medical Council in accordance with its resolution adopted on November 24th, 1897. If they will refer to the report published in the BRITISH MEDICAL JOURNAL of December 10th, 1898, page 1756, of the meeting of the General Medical Council on December 1st, they will see that a report on the employment of unqualified assistants was presented by a committee and adopted by the Council. The Council then declined to go further in formulating definitions.

THE COLONIAL MEDICAL SERVICE.

R. A.—Particulars as to the mode of appointment to the Colonial Medical Service were given in the Educational Number of the BRITISH MEDICAL JOURNAL of August 27th, 1898, p. 568. A memorandum giving particulars can be obtained on application to the Colonial Office, Downing Street, S.W. The chief drawback to the Colonial Medical Service appears to be the uncertainty of promotion. We may refer our correspondent to the reports of a meeting held at the Imperial Institute—published in the JOURNAL of February 26th, 1898, p. 580, and March 5th, 1898, p. 655—to advocate the formation of a Colonial Medical Service for the Crown Colonies.

HOME FOR EPILEPTIC BOY.

J.H.—Pending the opening of a boy's home at the Epileptic Colony at Chalfont, application might be made to the General Director of the Training Colony, Lingfield, Surrey, for information as to terms of admission to the Home for Epileptic Children there

MEDICAL GOLF TOURNAMENTS.

WITH reference to the announcement made in the BRITISH MEDICAL JOURNAL of January 21st, page 192, we are asked to state that the links chosen for any match must be within fifteen miles of London if one competitor so wishes; entries to be posted not later than Monday, February 6th, to the Honorary Secretary, Windlesham, Surrey.

HOME FOR DIPSOMANIAC.

DR. FREDK. A. FIELD (Lordship Lane, S.E.), Honorary Medical Officer to Ellison Lodge, writes: In answer to the query by "F. C." in the BRITISH MEDICAL JOURNAL of January 28th, respecting accommodation for the dipsomaniac wife of a working man, I recommend him to apply to Ellison Lodge, the Church of England Temperance Society's Inebriate Home for Women, Halfmoon Lane, Dulwich. There is at present one vacancy at the cheapest rate—that is, 7s. 6d. per week. I shall be pleased to give "F. C." any further particulars.

NOTES, LETTERS, Etc.

MESSRS. BURROUGHS, WELLCOME, AND CO., of Snow Hill Buildings, London, E.C., ask us to state that they have received by the *Thermopylæ* a parcel of herbs without any covering letter. They will be glad if the sender will communicate with them.

A DISCLAIMER.

DR. W. S. HEDLEY (Mansfield Street, W.) writes: My attention has been called to an article in the *Daily Mail* in which my name is mentioned. I can only say that this has been done absolutely without my knowledge or sanction, either direct or indirect.

TOTLAND BAY.

WITH regard to a short note from a correspondent which was published in the BRITISH MEDICAL JOURNAL of January 21st, 1899, another correspondent writes to point out that it is incorrect to state that Totland Bay faces south-west. According to the map, it appears to face about north-west.

ST. JOHN AMBULANCE ASSOCIATION.

WE have received from the Honorary Secretaries of the Stockport and District Medical Society a communication with regard to certain resolutions adopted at a special meeting of this Society to discuss the position of the local centre of the St. John Ambulance Association. We think it would be premature to publish these resolutions before the reply of Lord Egerton of Tatton, the President of the local centre, has been received.

HOSPITAL OF ST. FRANCIS.

WE have received from Dr. W. Murray Leslie, Mr. E. Harding Freeland, and Mr. H. J. Paterson the following letter with a request for publication:

"[COPY.]

"Hospital of St. Francis, 145, New Kent Road, S.E.,
"January 10th, 1899.

"To the Hon. Sec. of the Committee of the Hospital of
"St. Francis.

"DEAR SIR,—We, the undersigned, beg to tender to your Committee our resignations as members of the honorary staff of your hospital. We have come to this conclusion after very careful consideration, and our decision is mainly based on the fact that, intentionally or otherwise, we were allowed at the time of our election to remain ignorant that your institution was conducted on vegetarian and allied principles. We now desire to state emphatically, as we should have done at the time of our appointment had an opportunity been given us, that we are distinctly opposed to such principles both in theory and practice. Furthermore, the method on which the hospital is worked does not in any way commend itself to us. Consequently, we are unable honourably to remain any longer associated with your institution.

"We remain, yours faithfully,
"(Signed)
"W. MURRAY LESLIE, M.D., C.M., F.R.C.S.E.,
"E. HARDING FREELAND, F.R.C.S.,
"HERBERT J. PATERSON, M.B., B.C., F.R.C.S.

"Philip Tovey, Esq."

INSUSCEPTIBILITY TO VACCINATION.

WE have received a letter on this subject from Dr. Chaumier, Director of the Vaccine Institute at Tours. As it is too long to insert in full, we give a brief abstract. A relative insusceptibility is sometimes observed in calves inoculated with the same vaccine, some developing more pustules than others. In children Dr. Chaumier has observed partial, but never complete, insusceptibility. Inoculated with a feeble vaccine, only highly susceptible children will develop vesicles. However, if a virulent vaccine lymph is used, vesicles are produced in the most refractory cases, and children already inoculated without success on previous occasions can be successfully inoculated with this preparation. Absolute insusceptibility is never found even in the case of a child born of a mother recently vaccinated, or affected with small-pox. The immunity conferred by vaccination lasts only three or four years, after which time a virulent lymph will often give results. According to Dr. Chaumier, therefore, the results depend on the strength of the vaccine, and he is of opinion that when the percentage of successful vaccination falls below 70 or 80 the lymph is defective, and the use of a stronger lymph will produce success in the case of some of the previous failures.

A CORRECTION.

DRS. ROWLAND THURNAM and **NEVILLE GWYNN** (Nordrach-upon-Mendip, Blagdon R.S.O., Somerset) write: A paragraph on page 247 of the BRITISH MEDICAL JOURNAL of January 28th shows a want of accuracy which is also regrettable.

We have not named our sanatorium "Nordrach-in-Mendip," but Nordrach-upon-Mendip, following the custom of the countryside in naming places here—that is, "Charterhouse-upon-Mendip," "Leigh-upon-Mendip," etc. We have, furthermore, named our sanatorium after the one where we were both cured, since, with so many so-called open-air cures and pseudo-sanatoria springing up at the present time, we desire definitely to associate ourselves with the methods and aims of Nordrach-Colonie, which are at once so well known and so successful.

HEADACHE CAUSED BY ERYTHROL TETRANITRATE.

J. S. C. writes: I see in the BRITISH MEDICAL JOURNAL of January 14th a note by "R.A.M.C." on this subject. I have prescribed it in two cases of women suffering from high arterial tension during the menopause, in both of which it gave rise to severe headache; both patients characterised it as the worst headache they had ever experienced, and one of the ladies has suffered from migraine all her life. Mentioning this to a medical neighbour not long since, he told me of a case he had prescribed it in for angina, in which it had the same effect. On the other hand my father, who has taken half a grain daily for over a year for anginal attack with great benefit, has never had the least symptom of headache. I may add that in both my cases nitro-glycerine is taken without any unpleasant symptoms except the usual fulness and throbbing in the head.

INTRACEREBRAL INJECTION OF ANTITOXIN.

DR. JAMES WATSON (Nottingham) writes: Dr. Semple's paper in the BRITISH MEDICAL JOURNAL of January 7th is very interesting, and I write only to suggest a simplification of the operation for intracranial injection. For the past thirty or forty years in certain districts it has been common for sheep farmers and shepherds to empty and remove cœnurus cysts from the brains of their sheep. They use an apparatus consisting essentially of a simple trocar-like drill (having a pyramidal point and a collar to prevent too deep penetration) and a trocar and cannula. They push the drill through the skin, etc., down to the bone, and with a few turns of the wrist put it through the bone till stopped by the collar. They then insert the trocar and cannula, which is very slightly smaller than the drill. I need not complete the description of this operation, but would suggest that Dr. Semple will find a simple method like this quite sufficient. The risk of sepsis will certainly not be increased, and it will save (*a*) the incision, (*b*) the stitches, and (*c*) the scar.

EXEMPTIONS FROM VACCINATION.

MAGNA EST VERITAS writes: If, as I take it, the protective value of vaccination remains unassailed by the worst that a Royal Commission could do, the only possible argument against compulsion is the one that the risk to the individual was of a kind sufficient to outweigh the safety conferred on the community, or that this safety could be as efficiently, or almost as efficiently, secured by isolation, notification, and general sanitation. In contrasting the value of vaccination with these substitutes for it—even if much more perfect than they yet are, or soon likely to be—we need only consider what it would mean to us if in our crusade against tuberculosis or our fight with malaria we had a weapon like vaccination. What would that not mean in lives, and money, and sense of security at home and in our Colonies! The argument, then, against this slight "operation" reduces itself to an assertion that it is on all fours with other surgical operations which, though to save life, may not be done without consent, or that its riskiness forbids its compulsion. The former of these may be ignored, since it takes no account of the risk to the community. With the latter, as already indicated, we can now deal, but it must be remembered that until lately there has been much in it, in fact more than our opponents or we ourselves were aware of. Every practitioner must admit that from time to time septic inoculation or infection has accompanied or followed vaccination. The fact that by research we can now with glycerine, etc., separate the essential from the non-essential organisms does not do away with the fact that hitherto children have been compulsorily inoculated with we know not what. This, perhaps, ought to make us patient, and even "suffer fools gladly," until we are sure of our methods and remedy, and be prepared, meanwhile, for emergencies.

ERYTHEMATOUS RASH PRODUCED BY SMALL DOSES OF QUININE.

DR. A. ST. LAWRENCE-BURKE (District Medical Officer Wolverhampton) writes: The following remarkable susceptibility to the influence of quinine may prove interesting: On December 26th, 1898, at 9.30 P.M., I was called to see a woman, aged 31, whom I had attended at her confinement the day previous. I found her suffering from a severe rigor. I felt alarmed, especially as everything was right when I saw her the same morning, and her temperature quite normal. I found the temperature had gone up to 107°; the tongue was very dry, and every symptom of fever present. The patient remarked that she had a similar "shiver" some two years before, when she was last confined. I gave directions what was to be done, and made up a mixture of quinin. sulph. gr. 40, acid sulphurici dil. ʒjss, aqua ℥viij. Two tablespoonfuls every third hour.

Next morning, December 27th, I was suprised to find my patient completely covered with an erythematous rash very like scarlatina; all the other feverish symptoms had disappeared, and she seemed comparatively easy. Knowing that quinine in large quantities produced a rash similar to scarlatina sometimes, though I presume the occurrence is very rare, I thought I should stop the mixture, and, as only half had been taken, watch the result. On the following morning, December 28th, everything had disappeared, and the woman made an uninterrupted recovery. In this case I am inclined to think that the rash was produced by the quinine, and as there was buzzing in the ears also it seems as if the patient was very susceptible to the drug.

LETTERS, COMMUNICATIONS, ETC., have been received from:

(**A**) Dr. W. Alexander, Portobello; Messrs. Arnold and Sons, London; Ajax; Dr. J. W. Anderson, Eastbourne; Professor T. Clifford Allbutt, Cambridge; Mr. R. Anderson, Bury St. Edmunds; Mr. J. Adam, Hamilton; Mr. R. Atkinson, Clifton; Alpha; A. B. C. (**B**) Messrs. William Blackwood and Sons, London; Dr. A. E. Brindley, Bury; Dr. G. T. Beatson, Glasgow; Mr. A. Bird, Dudley; Mr. H. T. Butlin, London; H. L. Barnard, M.B., London; J. G. Bailey, M.B., Bury; A. Brownlie, M.B., Redcar; Dr. J. W. Ballantyne, Edinburgh; Dr. J. B. Brierley, Manchester; Mr. G. P. Bate, London; Dr. A. Bronner, Bradford; Dr. F. M. Burnett, Sevenoaks; Mr. L. A. Bidwell, London. (**C**) Messrs. Clayton, Jowett, and Ward, Blackburn; Mrs. J. Coats, Glasgow; A. Croll, M.B., Dudley; Correspondent; Dr. A. E. Cooper, London; C.; Dr. W. A. Carline, Lincoln; Mr. C. Clay, Salisbury; Mr. R. Creasy, Windlesham; Mr. G. B. Coleman, London. (**D**) Dubious; "Daily Graphic," Editor of the, London; Dr. A. T. Davies, London. (**E**) Dr. C. Ewart, London; Mr. E. S. B. Eames, Bury St. Edmunds; W. Edmunds, M.B., London; Mr. A. Eddowes, Loughborough. (**F**) Mr. W. T. Freeman, Reading; Mr. W. E. Fairweather, Dudley; A. G. Francis, M.B., Hull; A. H. Frere, M.B., Stradbroke Mr. F. C. FitzGerald, Cork; Mr. F. A. Field, London; Dr. W. F. Farquharson, Carlisle. (**G**) Dr. J. F. Goodhart, London; Dr. L. G. Guthrie, London; Dr. M. Greenwood, London; Mr. W. C. Gent, Bristol; Mr. H. R. Greene, Belvedere; Mr. J. W. Gill, Liskeard; Dr. A. E. Giles, London; G. H. (**H**) Mr. J. Harper, Belfast; Mr. W. G. Halloway, London; Human Lymph; Mr. J. Hutchinson, London; Mr. E. M. Hassard, Hoddesdon; Mr. A. H. Hardcastle, Hunslet; Dr. T. B. Hyslop, London; Mr. J. Harper, London; Dr. J. Hill, Renfrew; Mr. W. H. Hall, Frant. (**I**) Inquiro; Inquirer. (**J**) Mr. H. L. Jones, London; J. C. J. (**K**) J. M. Kenny, M.B., Granard; Mr. W. M. Knipe, Melbourne, Derbyshire; Mr. C. Keys, West Bromwich; J. M. M. Kerr, M.B., Glasgow; Messrs. Krohne and Sesemann, London; Mr. A. F. A. King, Washington; Kidderminster Medical Society, Secretary of, Kidderminster. (**L**) Dr. H. L. G. Leask, Glasgow; L.R.C.P.Lond.; Dr. A. W. W. Lea, Manchester; Mr. J. D. Lawrie, Birmingham; Liverpool Medical Institution, Secretary of, Liverpool; Dr. G. A. Leon, Sidmouth. (**M**) Member B.M.A.; Mesmer; Medicus; Mr. J. McKay, Belfast; M.R.C.S.Eng., L.S.A.; Mr. F. C. Melhado, London; Dr. W. MacGill, Denton; Dr. D. T. Masson, Edinburgh; C. F. G. Mann, M.B., Washington; Messrs. Maw, Son, and Thompson, London; Mr. J. H. Mummery, London; Member X.; Member; B. G. A. Moynihan, M.B., Leeds; Mr. A. Maude, Westerham; Mr. G. Marsh, Clitheroe; Mr. J. Morgan, Aberystwyth. (**N**) Nottingham Medico-Chirurgical Society, Secretary of, Nottingham. (**O**) Omega; Mr. C. R. Owen, Rushden; Dr. I. Owen, London; Old Member. (**P**) Public Vaccinator; Dr. C. Pollard, Worcester; Mr. J. W. Plaxton, Kingston, W.I.; P.V.; H. J. Paterson, M.B., London; Practical; Mr. J. C. S. Pearson, London; Mr. G. Packer, Clifton; Dr. G. C. S. Perkins, London; P.V. for last 29 Years; Mr. W. F. Pike, London. (**R**) Mr. E. J. Reid, London; Dr. A. Roberts, Harrogate; Dr. T. H. Redwood, Rhymney; Dr. H. B. Robinson, London; Dr. J. Robinson, Bolton; S. J. Ross, M.B., Bedford. (**S**) Mr. C. Spencer, Liverpool; Dr. H. G. Smeeth, Stockport; Mr. A. Sanderson, Douglas; Lady Henry Somerset, Reigate; Messrs. A. W. and D. Skinner, Inverness; Dr. H. Smith, London; Dr. J. A. Shaw-Mackenzie, London; Mr. S. Snell, Sheffield; Spes; Dr. J. E. Squire, London; S. H. (**T**) Dr. H. Tilley, London; Mr. L. Tait, Llandudno; Mr. A. Teevan, Ballarat; A. J. Tonkin, M.B., Manchester; E. Tonge, M.B., Millbrook. (**U**) University Graduate. (**W**) Dr. D. Walsh, London; Dr. T. J. Wood, Bradford; Dr. S. West, London; Mr. R. H. Wolstenholme, Salford; Dr. A. T. T. Wise, Montreux; F. Wyatt-Smith, M.B., Reigate; Mr. N. I. Wright, Morpeth; W. W. Wagstaffe, M.B., Sevenoaks; Dr. F. Willcocks, London; Dr. J. W. Watson, Limavady; Dr. J. S. Warrack, Aberdeen; W. Y. M.; Mr. B. Williams, Mold. (**Y**) Mr. M. T. Yarr, London; etc.

BOOKS, ETC., RECEIVED.

Poison Romance and Poison Mysteries. By C. J. S. Thompson. London: Scientific Press. 1899. 6s.

Local Government Annual, 1899. Edited by S. Edgecumbe-Rogers. London: "Local Government Journal" Office. 2s. 6d.

Lippincott's Pocket Medical Dictionary. Edited by R. W. Greene, A.B. London and Philadelphia: J. B. Lippincott. 5s.

The Thermal Waters of Bath. By G. A. Bannatyne, M.D., M.R.C.P. Bristol: John Wright and Co. 1899. 2s.

Handbook der Toxikologie. Von Professor A. J. Kunkel. Jena: Gustav Fischer. 1899.

Dod's Parliamentary Companion. Seventy-fifth Issue. London: Whittaker and Co. 1899. 4s. 6d.

Textbook of Anatomy, Physiology, and Hygiene. By E. F. Smith, M.D. New York: W. R. Jenkins. 1 dol.

Harry Ingleby, Surgeon. By F. J. Webb. London: T. Fisher Unwin. 1898. 6s.

The Nursing Profession: How and Where to Train. Edited by Sir H. Burdett, K.C.B. London: Scientific Press. 2s.

Glaucoma: its Symptoms, Varieties, Pathology, and Treatment. By A. W. Stirling, M.D., C.M., D.P.H. St. Louis: J. H. Parker. 1898.

La Néphrite des Saturnins. Par Dr. H. Lavrand. Paris: Masson et Cie. 1899. Fr. 1.25.

Transactions of the American Gynecological Society. Vol. 23. Philadelphia: W. J. Dornan. 1898.

Elementary Physiology. By B. Moore, M.A. London: Longmans, Green, and Co. 1899. 3s. 6d.

Fry's Law of Vaccination. By A. F. Vulliamy. Seventh Edition. London: Knight and Co. 1899.

King's American Dispensary. By H. W. Felter, M.D., and J. U. Lloyd, Phr.M., Ph.D. Eighteenth Edition. Vol. I. Cincinnati: Ohio Valley Company; and London: Potter and Clarke. 1898. 4.50 dols.

Récamier et ses Contemporains 1774-1852. Par P. Triaire. Paris: J. B. Baillière et Fils. 1899.

Annual and Analytical Cyclopædia of Practical Medicine. By C. E. de M. Sajous, M.D. Vol. II. Philadelphia: F. A. Davis Co. 1899.

Edinburgh Medical Journal. Edited by G. A. Gibson, M.D., F.R.C.P. Vol. IV. Edinburgh and London: Young J. Pentland. 1898.

*** In forwarding books the publishers are requested to state the selling prices.

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A CLINICAL LECTURE

ON THE

RHINOPLASTIC OPERATION.

Delivered in the Meath Hospital and Co. Dublin Infirmary,

BY SIR WILLIAM STOKES, F.R.C.S.I., CH.M.,
Surgeon in Ordinary to Her Majesty the Queen in Ireland;
Professor of Surgery, Royal College of Surgeons, etc.

OF the plastic operations in surgery, those designed for the restoration of a nose partially or completely lost are probably the least popular with operating surgeons. This doubtless is due to the fact that satisfactory results are so seldom found possible of attainment, even by surgeons of some experience and reputed dexterity. When, however, the cases selected are suitable, and the necessary ingenuity in design and skill in execution on the part of the operator are available, then such procedures are to be commended and should be adopted.

The conditions indicating the particular form of rhinoplastic operation to perform are so various that it is hard, indeed impossible, to indicate in any comprehensive or exhaustive way the rules that should guide us in carrying out the measure. Among these, however, the following may be suggested. No operation of the kind should be undertaken so long as there is evidence of the disease producing the deformity being in a condition of any activity, however slight; the raw surfaces for the reception of the flap from the forehead, or from whatever situation it be taken, should be as narrow as possible; and when the frontal flap is selected, the pyriform design of Dieffenbach should be adopted. A period of three weeks should elapse before division of the pedicle, and when the skin covering the collapsed tissues is healthy it should not be completely removed, but utilised to give greater support and elevation to the new nose. This should be done either by the methods recommended by Thiersch, Keegan, Treves, and Woods. In the latter methods the flap, triangular in shape, with its apex above and base below, should be left attached below and reversed, so that the skin surface should line the roof of the anterior portion of the nasal fossa. In Thiersch's method two longitudinal skin flaps are taken from each side of the edge of the gap to be closed. These flaps are then turned inwards, and united in the mesial line. The integumentary surfaces of these flaps then line the roof of the nasal fossa, and on the raw surfaces, turned outwards, the frontal flap is laid. The additional thickness of the soft tissues obtained by the apposition of the frontal and nasal flaps largely diminishes the chances of subsequent flattening or falling in of the new nose. The nasal processes of the superior maxilla, provided they are healthy, may be utilised by v. Langenbeck's method, and thus give additional support to the nose, and in cases where the ossa nasi are healthy, and the columella remains free from disease, the procedure described in the second case, which I shall detail later on, is indicated.

Some surgeons, among others, I believe the late Professor Volkmann, have expressed themselves opposed to efforts being made to form a columella. In this view I cannot concur, as the formation of one taken from the frontal flap or from the upper lip, not only is an improvement æsthetically, but also must to a great extent counteract the tendency to falling in or flattening of the new organ.

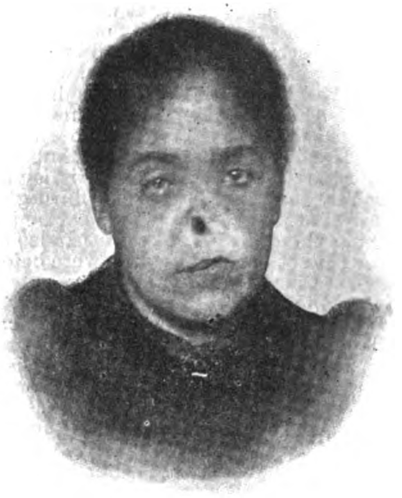
In some cases the employment of temporary supports for maintaining the elevation of the new nose, and which may be made of ivory, silver, or glass can be employed with advantage, and fine carefully sterilised silk is the most appropriate material to employ for the sutures.

In connection with the rhinoplastic operation no one has done better work of late years than the late Mr. John Hamilton of Dublin. In his memoir on the subject will be found not only a long and valuable series of cases successfully operated on by him, but also many interesting historical details connected with the procedure. We learn, for example, that a Sicilian surgeon named Brancas in 1442, and in Italy a Calabrian surgeon named Vincent Vianneus, performed rhinoplastic operations, adopting the method which was subsequently known as the Taliacotian operation. These procedures are mentioned in the works of Vesalius and Ambroise Paré. The latter illustrious surgeon, in his great work on surgery gives in quaint and picturesque language the particulars of a case under his observation that was operated on by a "surgeon of Italie," whose name, oddly enough, is suppressed by the author. He observes, "A younger brother of the familie of St. Thoan being weary of a silver nose, which, being artificially made, he had worn in the place of his nose that was cut off, went to this Chirurgian into Italie, and by the means of the fore-named practice he recovered a nose of flesh againe to the great admiration of all those that knew him before. This thing truly is possible to be done but it is verie difficult both to the patient suffering and to the Chirurgian working. For that the flesh that is taken out of the arme is not of the like temperature as the flesh of the nose is, also the holes of the restored nose cannot bee made as the were before."[1]

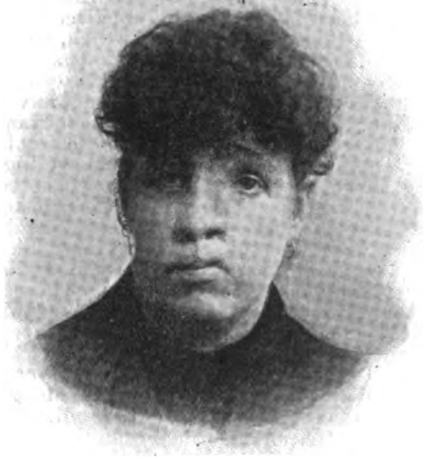
The reason for Taliacotius's name being associated with this operation, of which, as has been pointed out, he was not the originator, is doubtless owing, as stated by Mr. Hamilton, to the publication in Venice in 1597 of his treatise *De curtorum Chirurgia sive de aurium et narium defectu per insitionem arte hactenus ignotâ sarciendo.* This publication took place forty years after his death. Although a case is recorded by Hildanus in which the operation was successfully performed by a surgeon named Griffonius, we may say that with the death of Taliacotius the operation was for a long time practically abandoned. Still cases occasionally occur in which the operation should be performed in preference to the Indian rhinoplastic or any of its modifications. Such cases as, for example, the one operated on and published by the President of the College of Surgeons, Sir William MacCormac,[2] and a case I operated on some years ago in the Richmond Hospital, and published,[3] in both of which the results were not only encouraging but eminently satisfactory. It must be admitted, however, that the cases in which this operation is indicated are very rare.

It is with the so-called Indian rhinoplastic operation, introduced into England by Carpue in 1803, who published a work on the subject in 1816, that operating surgeons are chiefly interested, and it is to this operation, or a modification of it, that I wish more particularly to draw your attention to-day. Since the publication of Carpue's monograph, however, a good many modifications and improvements have been suggested and practised; for example, the Langenbeck-Ollier methods, in which, by periosteal transplantation, efforts are made to obtain firm support of the flap by osteogenesis. Also Langenbeck's osteo-periosteal method of partial detachment of the nasal processes of the superior maxilla, the displacement of these forwards so as to form osseous buttresses for the support of the frontal flap, to the lower portion of which the periosteal covering was carefully retained, in the hope that a re-formation of bone in the situation of the destroyed nasal bones might take place. Other methods, such as Professor Syme's, should also be mentioned, which in certain cases are more likely to be attended with satisfactory results than the Indian rhinoplastic method or any of its modifications. These cases are, however, exceptional, and, in truth, mainly applicable to those in which the normal osseous supports have not been wholly obliterated.

The first case I should wish to bring under your notice is that of J. M., aged 27, who was recently in the Meath Hospital under my care, on account of the sad deformity of her face, of which a fair estimate can be formed from the accompanying illustrations from photographs of the patient before and after the operation made by Mr. Prescott, late Clinical Clerk in the Meath Hospital. In all other respects the patient appeared healthy and strong and there was no evidence from family history or otherwise of there being any tuberculous element in the case. I regarded it as having a specific origin. There was no active disease progressing and the soft structures over the perfectly flattened nose were apparently healthy. Owing to the exceptionally frightful deformity present in this case the condition of the patient was in truth a sad one. She felt compelled to wear under a thick veil a black silk mask, being not unnaturally sensitive about her deformity being seen, and under these circumstances was unable to obtain employment and earn a livelihood. The patient was accordingly admitted into hospital with the object of getting a plastic operation performed. The procedure adopted was in most respects similar to one described and illustrated in Mr. Treves's *Operative Surgery*, and which has been strongly advocated by Mr. R. Woods, who has published an excellent account of the method and who, at my request, kindly inspected the case and made some ingenious suggestions as to the *modus operandi*. The main feature of this procedure is the preservation and reversion of the flap of skin occupying or covering the situation of the destroyed nasal bones. The skin flap, triangular in shape, with its apex above and base below, was turned downwards so that the integumentary surface formed the roof of the anterior portion of the nasal fossa and the raw surface looked forwards. A pyriform-shaped flap similar to that designed and recommended by Dieffenbach was then dissected from the forehead, care being taken not to involve the deeper structures covering the frontal bone, a precaution which I believe accounts for the unusually small amount of cicatricial deformity which resulted from the operation. The frontal flap, taken somewhat on the left side of the mesial line, was then brought down and inverted by gentle torsion of its pedicle. The two raw surfaces of the triangular nasal flap and the frontal one were then brought into contact, and the edges at each side united by horsehair sutures. The outer portions of the lower part of the pyriform-shaped flap at each side of the columella were then turned back and secured by sutures, and the square-shaped portions between them designed for the columella was doubled on itself, bringing its raw surface into contact. These were then secured by sutures and pushed back, and the raw surfaces of its edges below brought into contact with the upper edge of the lip, which had been vivified for its reception. These edges were then sutured by fine silk. In order to assist in preventing flattening of the new nose, I placed two small leaden plates, kindly furnished to me by Mr. Woods, one on each side of the nose, and approximated them by passing silk sutures horizontally through the tissues of the nose and fastening them to the plates. This manœuvre forced the intervening tissues forwards and gave elevation to the new nose. These plates and sutures were left undisturbed for three days and then removed. The advantages of utilising a double flap appear to be twofold. First, there is less risk of contraction from the inner surface of the new nose being lined by skin; and, secondly, the chances of collapse and flattening of the tissues are diminished, owing to the additional thickness of the tissues obtained by the double flap.



J. M. Before operation.



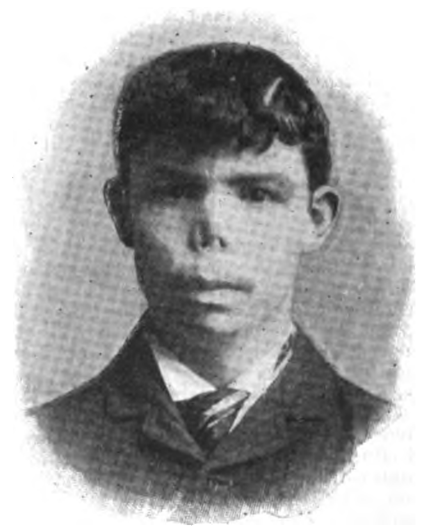
J. M. After operation.

Had the nasal maxillary processes been available I should have made the attempt, suggested by v. Langenbeck, to form an osseous bridge on which the new flap might rest and be supported. But unfortunately on one side the process was completely destroyed by disease and on the other it was much hypertrophied. It was not possible, therefore, to make an attempt to carry out this ingenious idea, one which I do not think has as yet received the attention of operating surgeons which it merits.

The illustration, taken from a photograph eight months after the operation, or series of operations, I performed in this case, indicates a result which may be considered satisfactory. Since the patient left the hospital she was for a considerable time employed as a servant in the Meath Hospital Convalescent Home at Bray, co. Wicklow.

In the next case a very different and, I am inclined to think, a novel method of operating was adopted, and with a result as favourable as in the preceding case.

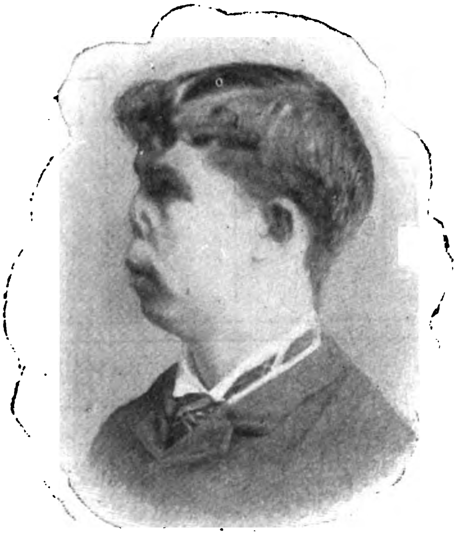
J. B., aged 19, was admitted into the Meath Hospital on June 19th, 1894. He had suffered from his childhood from recurring attacks of lupoid ulceration affecting chiefly the anterior portion of the septum and extremity of the nose. He had been treated in various hospitals with the not unsatisfactory results of checking the progress of the disease, and bringing it to a quiescent condition. In consequence of the partial loss of the nose, however, the disfigurement was one which gave the patient much distress, and accordingly he came to hospital for the purpose of obtaining a restoration of portion of the organ which had been destroyed. All activity in the disease having subsided, and the deformity being so much

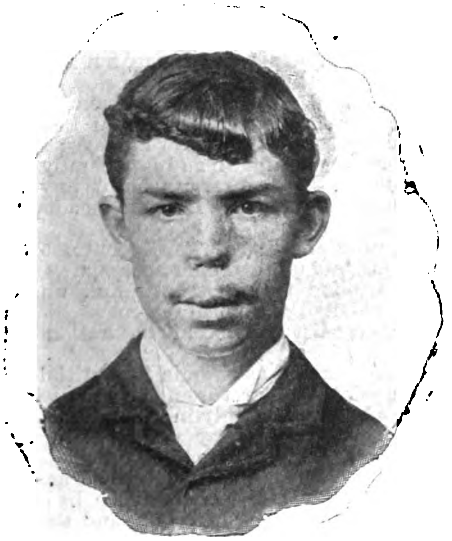


J. B. Before operation.

localised, I felt that neither the Indian rhinoplastic or any of its modifications were indicated. Still less was the Taliacotian method.

The following procedure I adopted: The columella having happily remained unaffected, I was saved the trouble of making one. I commenced by making an incision a little to the inside of the right ala, and carried it across the extremity of the nose to a corresponding point on the left side. The incision extended as high up as the point corresponding to the lower margins of the nasal bones. This incision was passed through all the tissues into the anterior nares. We had thus a bridge of tissue attached at each side, and with the columella separated from the vomer and nasal bones. This bridge was then drawn downwards and kept in that position by a small ivory buttress, which separated it from the tissues of the upper part of the nose. The gap thus formed was somewhat lozenge-shaped, and to fill up this I dissected two triangular-shaped flaps, one from each side of the cheeks, with the bases above and the apices below, and these flaps were then turned downwards and inwards and their bases brought together in the middle line and carefully united by two or three points of suture of fine, carefully-asepticised silk. The upper margins of the transplanted flaps were also carefully sutured to the tissues above and the lower margins to the bridge. The ivory buttress was left in for three days, until the edges of the flaps had become firmly united to the tissues above and below. The vitality of the triangular transplanted flaps was throughout satisfactory. In order to obliterate the defects caused by the detachment and transplantation of the flaps I performed a sliding plastic operation, which had the desired effect, and little or no cicatricial deformity on either cheek remained.


J. B. Before operation


J B. After operation.

The cases applicable for such a procedure as that just described are, of course, exceptional; but in such a one it has, I think, great advantages over any of those ordinarily performed. The Indian rhinoplastic and its modifications are long and tedious in their performance and uncertain in their results; and the same may be said of the Taliacotian operation. These objections do not apply to the method described in the above case, which was done in a comparatively short space of time, was unattended with hæmorrhage of any moment, or the subsequent development of a disfiguring cicatrix.

REFERENCES.

[1] *The Workes of that famous Chirurgeon Ambroise Parey*, London, 1640, p. 758. [2] *Clinical Society's Transactions*, vol. x, 1877, p. 1181. [3] *Dublin Journal of Medical Science*, May, 1882.

THE LETTSOMIAN LECTURES

ON

SOME CLINICAL ASPECTS OF GRANULAR KIDNEY.

Delivered before the Medical Society of London.

BY SAMUEL WEST, M.D., F.R.C.P.,
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LECTURE I.

THE invitation to deliver the Lettsomian Lectures before this ancient Society is a compliment which no one, and least of all myself, can fail to appreciate. It is one which has been accepted in times past with full appreciation of the honour by many of the most distinguished members of the profession. The great names upon that list have aroused in me the natural fear that my ability may prove unequal to the task, yet I trust that with their example and your indulgence I may succeed in making the present Lectures not unworthy altogether of a place in the series.

In choosing granular kidney, I was guided by the wish to select a subject which should be of practical importance, and therefore of general interest, and at the same time one upon which I could speak from personal experience.

Granular kidney is a disease of great importance on account of its frequency, a frequency which is by no means adequately recognised. *Post mortem* it is often discovered when not suspected. It is often in itself the cause of death, even of sudden death, and it often explains why death has happened in other diseases which otherwise might not have proved fatal. *During life* it is often discovered unexpectedly if looked for; it is often overlooked if not suspected, and it often explains a case which has been a puzzle until granular kidney gave the key.

The general *post-mortem* frequency of granular kidney ranges from 11.8 to 18 per cent., so that it is a very common condition.

Thus the *post-mortem* records at St. Bartholomew's Hospital for a period of five years gives 13.2 per cent. (219 cases of granular kidney in 1,662 necropsies, children being excluded from the calculation).[1] Of these, 132 were in males and 84 in females, showing the frequency in males to be one third greater than that in females. Goodhart's statistics at Guy's yield 15 per cent.; Saundby's, at the Birmingham General Hospital, 18 per cent.

Mahomed's Table showing Relative Frequency of Granular Kidneys to Healthy Kidneys at different Age-Periods based on 336 Cases, of which 57 were above 50.

Ages.	Granular Kidney found in
10-20	2.3 per cent
30	3.0 ,,
40	12.0 ,,
50	38.5 ,,
60	43.0 ,,
Above 60	50.0 ,,

Nothing will better prove the importance of granular kidney than the following statistics obtained for me by Dr. Horderas,[2] the result of an investigation made into the cause of death in persons brought into St. Bartholomew's Hospital dead or dying. The total number of such cases (excluding children under 5) was 79, in all of which a *post-mortem* examination was made. Of these, 64 were dead on reaching the hospital, and 15 died in the surgery.

Table showing the Frequency with which Chronic Interstitial Nephritis was found in the Bodies of Persons brought in Dead or Dying into St. Bartholomew's Hospital during the Period of Five Years (1894-8 inclusive), Children under 5 excluded.

Chronic Interstitial Nephritis found to be:	64 Cases brought in Dead.	15 Cases Dying in Surgery.	79 Cases together.
1. The actual cause of death in	13 cases=20.3%	2 cases=13.3%	16.8%
2. A concomitant cause of death in	19 cases=30%	2 cases=13.3%	21.6%
3. An accessory but doubtful cause of death in ...	6 cases=6.25%	2 cases=13.3%	9.77%
Totals	38 cases=56.25%	6 cases=40%	48.17%

Thus in 48 per cent. of these cases chronic interstitial nephritis was present. In 16.8 per cent. it was the only cause of death, and in 21.6 per cent. more it played its part either in producing death or in causing the lesion which led to death—that is, together in 38.4 per cent.

Nothing more is necessary to prove the importance and frequency of the disease.

Of the 21 cases in which granular kidney was the concomitant cause of death, in 10 death was due to hæmorrhage to which the intestitial nephritis may have directly or indirectly led. In 4 cases aneurysm of the aorta was present and its rupture was the cause of death. Of the others, in 1 there was hæmorrhage into the pons Varolii, in 1 pachymeningitis hæmorrhagica, and in the remaining 3, a ruptured aneurysm of the anterior communicating artery in 1 instance and of the Sylvian artery in 2, and the remaining case was one of hæmoptysis.

The association of interstitial nephritis and aneurysm both of the aorta and of other arteries is remarkable, and so far as I know has not been previously so clearly shown.

In 7 cases the cause of death was cardiac.

Acute endocarditis was found in	1	case.
,, ,, with pericarditis in	1	,,
Aortic incompetence in	3	,,
Aneurysm of the heart in	1	,,
Heart associated with atheroma of the coronary artery in	1	,,
	7	cases.

Of the remaining cases 3 had phthisis and 1 pneumonia.

The influence of granular kidney upon the prognosis of other diseases is well illustrated by acute pneumonia.

The association of pneumonia with any pre-existing disease greatly increases its gravity, even, according to Huss, to the extent of making it four times as fatal as in uncomplicated cases. In 100 fatal cases which I investigated 23 showed some pre-existent chronic disease of the lungs or pleura, 8 of the heart, and 10 of the kidneys.

Sturges' percentage was somewhat higher, namely, 15 per cent.

For all the reasons given granular kidney is not only one of the most interesting of diseases, but also one of the most important.

The lesions, physical signs and symptoms of granular kidney all alike fall into two groups, the cardiovascular and renal. The physical signs are early, the symptoms late. When symptoms arise the disease has already existed for some time and the lesions are far advanced. For the diagnosis of the disease in its early stages we must look to the physical signs and not to the symptoms.

Granular kidney is a bilateral and to a great extent symmetrical affection, that is to say, both kidneys are similarly affected, though not necessarily to the same extent. The difference between them however, if there be any, is slight and rarely exceeds an ounce.

The kidneys may be much contracted and greatly reduced n size, so that they may not weigh more than 1½ or 2 ounces ch. Extreme contraction such as this is really rare. The neys are, it is true, usually reduced in size and weight, but by no means to the extent that seems generally believed; while in some instances, so far from being smaller than normal, they may be much above the average size and weight. In other words, there are large as well as small granular kidneys, just as there are large and small cirrhotic livers.

I have taken the weights given in the St. Bartholomew's Hospital statistics of 140 cases, and put them in a diagrammatic form, in which the weights are indicated by the vertical height and the number of cases by the divisions on the base line.

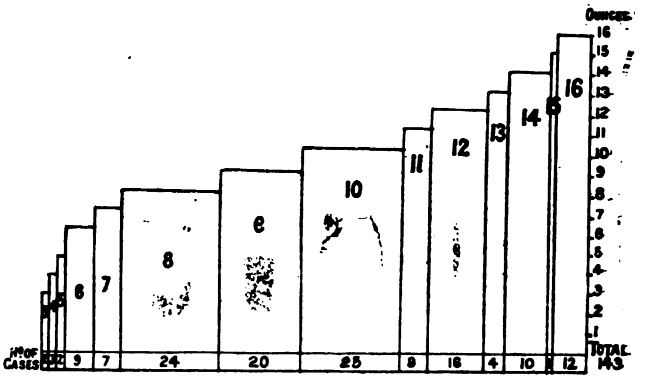


Diagram in which the weights in ounces of the two kidneys together are shown by the height of the vertical line, while the number of cases in which the kidneys were of the given weight is shown by the length of the base line.

Taking 11 ounces as the mean weight of the two kidneys together in the two sexes, or even including the cases in which the weights reached 12 ounces, it will be seen that in the great majority of cases the kidneys ranged between 8 and 10 ounces, and that in only 5 per cent. was the combined weight less than 6 ounces. On the other hand, in no fewer than 20 per cent. the combined weight was above the normal average, and in twelve cases reached as much as 16 ounces. In a few of these, no doubt, some allowance ought to be made for the fat deposited round the pelvis of the kidney, and in some others the weight was partly to be explained by the number and size of the cysts present. But in the majority neither cysts nor fat took any material part in the increase of weight, and in two instances in which the kidneys weighed 16 and 12 ounces respectively they were described in the *post-mortem* report as "large granular kidneys."

The kidneys, moreover, are not always granular on the surface, though microscopically the interstitial change may be marked enough.

It is also stated that the kidneys may be small and granular in appearance, and yet on section show no interstitial change. Such cases have been mentioned to me, but I cannot say that I have ever met with them myself.

As granular kidneys are not always granular, it might be thought some more accurate term could be found for its description, such as cirrhosis of the kidneys; but "granular kidney" is a term so well known and so generally accepted that it would be difficult to substitute for it any other which, though more accurate, would be likely to be adopted.

The typical granular kidney is small, contracted, hard, with a granular surface and often numerous cysts. On section the whole kidney is found to be cirrhotic and wasted, but the wasting affects chiefly the cortical region.

The changes consist in fibroid induration and cellular degeneration.

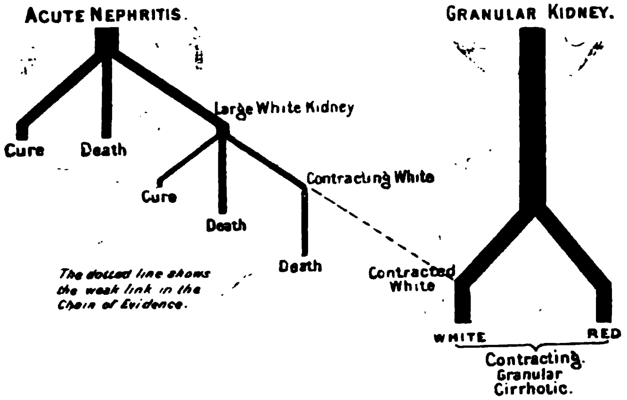
Though often described as chronic interstitial nephritis, it is an open question how far these changes are in reality of inflammatory origin. Certainly in most cases we have no more evidence of inflammatory processes in the cirrhotic kidney than we have in the cirrhotic liver.

Granular kidneys are sometimes described as of two kinds, the WHITE and the RED, and the difference in colour is held by many to denote difference in origin, and they are accordingly called the *contracted white* and the *contracted red*. The small white is generally stated to be somewhat larger than the red, to be less granular on the surface, and to have more cells left, these cells being in a condition of fatty change, to which the colour is referred.

None of these statements are, in my experience, quite correct; for small white kidneys are often as small and as granular on the surface as the small red, and may have quite as few or even fewer cells left, and these cells are often not fatty. The two forms certainly exist.

The term "contracted white" introduces confusion, and seems to assume what ought to be proved—namely, the different origin of the two forms. It suggests that the small white is but the later stage of the large white kidney. It assumes that every stage can be demonstrated between the large white kidney of chronic parenchymatous nephritis, through the contract*ing* white to the contract*ed* white.

If this was the usual sequence of events, it ought to be capable of easy clinical proof. Pathologically it is easy to show that chronic parenchymatous or the large white kidney presents interstitial changes of a contracting kind, but the weak link in the chain is between the so-called contracting form and the contracted form.



The dotted line shows the weak link in the Chain of Evidence.

If the distinction between the two forms is to be made, it would be very much better to speak of them as small white and small red or as white cirrhotic and red cirrhotic rather than white and red contracted kidneys. For myself, I consider the difference is really one of colour chiefly. Microscopically I do not see that any clear distinction can be drawn. The colour does not depend entirely upon the condition of the cells as is usually stated, for the fatty change to which the white colour is referred is not constant, and such kidneys may be markedly white or pale, in which microscopical examination shows a remarkable absence of cells, while the cells that remain are not so much fatty as granular. If pathologically the distinction between the two forms is open to question, clinically, so far as I can see, no distinction at all can be drawn between them; that is to say, with exactly the same clinical symptoms we may find the kidneys in the one case white and in the other case red.

Granular kidney is often described as chronic interstitial nephritis, but all forms of chronic interstitial nephritis are not necessarily granular kidney.

First of all must be cut out of the category of granular kidney all those cases in which the lesion is unilateral, for example that which results from obstruction to the ureters.

Again, all cases of patchy fibrosis—for example, the results of infarcts or gummata—even if both kidneys are involved, must be excluded, for they do not produce the clinical symptoms of granular kidney.

Even when the lesions are bilateral, and both kidneys are affected, I should still exclude from the category of granular kidney certain forms of chronic interstitial nephritis, which are often included pathologically, though clinically they are distinct. I refer to the degenerate kidneys met with in connection with advanced atheromatous disease, or with the chronic gout of elderly persons; in fact, the kidneys which used to be commonly called senile or gouty. These kidneys are often markedly interstitial, and there is a good deal of fatty and cellular degeneration, giving the surface a mottled appearance, but they need not necessarily be granular, and are usually large. Moreover, the case need not run the clinical course of granular kidney.

Eliminating these various forms we are left with a pathological group of cases of interstitial nephritis of definite character, which we commonly recognise by the term "granular" or "cirrhotic" kidneys.

In most recent writings granular kidney is divided into two forms, the arterio-sclerotic and the renal. These are often dealt with in different places, the one form under diseases of the vessels, the other under diseases of the kidney, so that in order to gain a complete view of granular kidney as a disease it has to be read in different chapters. This is very inconvenient and confusing, and suggests a marked difference between the two forms which, clinically, does not exist. It has, however, one advantage in that it fixes attention upon the question which is still at issue—namely, whether it is in the vessels or in the kidney itself that the primary causes of the disease are to be sought.

I shall now consider as briefly as possible the relation in which granular kidney appears to stand, on the one hand to inflammatory affections of the kidney, and on the other to the degenerative disease of the vessels.

THE RELATION OF GRANULAR KIDNEY TO ACUTE NEPHRITIS.

Acute nephritis attacks the cells primarily and chiefly, but the interstitial tissues are always involved to some extent, and the more so the longer the disease has existed. It is by the lymphatics that the products of inflammation, to a great extent, are removed, and in passing they appear to set up some irritation, so that in course of time a small-celled infiltration is found, in parts at any rate, following the lymphatics and surrounding the blood vessels. This small-celled infiltration may in time end in the production of connective tissue at first in parts only, in other cases more widely distributed, and there will be the more of it the longer the disease has lasted.

The large red kidney of acute nephritis passes as the disease lasts gradually into the large white. In the large white kidney some interstitial change is often found, sometimes local, at other times more diffuse; and admitting that pathological connective tissue contracts in the kidney as elsewhere, we should expect the large white kidney in time to become smaller, to undergo a certain degree of contraction in parts, if not as a whole, and of this we have frequent pathological proof. The kidney is then described as contracting white.

It is even conceivable theoretically that the contraction might go much further, so that in time we might have the large white kidney passing into what may be described as a small white kidney, or even possibly ending in a small red kidney.

Now, admitting the pathological possibility that acute parenchymatous nephritis might end in a granular kidney, if this actually occurred frequently it ought to be capable of easy clinical proof, for the symptoms of acute nephritis are not such as are likely to be often overlooked, by the patient or by the friends. Such cases are recorded, but they are certainly rare, and many of them prove on careful critical investigation not to be so conclusive as they at first sight appear. I have been on the watch for them for years, and although I have seen many in which the lesion has gone so far as to produce a somewhat diminished white kidney, the majority of such kidneys are still much above normal size. I have never traced a single case beyond this—that is, as far as a small white kidney. I do not say that it does not occur. On the contrary, I believe it may. I merely say that so far I have failed to observe it. On this point the late Professor Kanthack told me that his experience was the same, and that pathologically he had not been able to satisfy himself that an acute parenchymatous nephritis did actually pass beyond the contracting white stage.

I have recently had two cases in which the disease was traced from the commencement of acute nephritis to death after some months in each case, and in which microscopical examination revealed extensive fibrosis in the kidneys, though they were in neither case granular.

The first case, that of a woman, aged 29, appeared to be one of ordinary chronic parenchymatous nephritis, and so the kidneys appeared *post mortem*. I had the kidneys carefully examined because shortly before death (which occurred after about nine months illness), albuminuric retinitis had been found. The ordinary lesions of chronic parenchymatous nephritis were found, but with them also scattered patches of cortical fibrosis.

The second case, that of a girl of 14 is a more remarkable one, for on the child's death after about twelve months' illness, the kidneys, though of large size and not granular, and presenting the appearance of large white kidney, showed the most remarkable fibrosis, which did not involve the cortex alone, but the medulla too, and every part of the kidney uniformly. In this case also albuminuric retinitis was discovered about four months before death.

It might be urged that marked contraction in granular kidney would be more frequent if the patients lived long enough, but that they die too soon, perhaps after but a few months' illness and before the interstitial changes have had time fully to develop. This is but to acknowledge that they do not necessarily or often occur.

But it does not necessarily follow even when the symptoms of chronic parenchymatous nephritis have lasted for many years that a contracted kidney will result.

I know of a woman who has had several attacks of parenchymatous nephritis in the course of thirteen years, and who has never at any time lost the albumen from the urine; yet now, at the end of thirteen years, her arteries are thin and her heart not hypertrophied; she appears in fair health, and her retinæ are normal; there are, in fact, in spite of the long duration of the case, no clinical signs whatever which would justify the diagnosis of granular kidney.

I know also of another case in a man who, twenty-five years ago, had parenchymatous nephritis of great severity, and who has continued to pass albumen in large amounts (one-third to one-half) ever since, and yet no signs of contracted kidney have so far shown themselves. Cases of shorter duration than these, too, are not uncommon.

Nor can any closer relation be proved by the clinical history to exist between granular kidney and antecedent acute nephritis. It is quite unusual in cases of granular kidney to obtain any history of symptoms which would in any way justify the diagnosis of acute nephritis. This fact has been always insisted on as long as granular kidney has been recognised as a disease, and is generally accepted.

Even when the history of antecedent acute nephritis is obtained, it does not necessarily follow that the granular kidney has been the result of it. The occurrence of acute nephritis is no proof in itself that prior to the acute nephritis the kidney was sound; or, in other words, that if after an attack of acute nephritis the kidneys are found granular, they became granular as the result of the acute attack. For, on the one hand, it is not uncommon, in the course of a case already recognised as one of granular kidney, to observe acute parenchymatous nephritis develop; and, on the other, to see a patient hitherto believed to be healthy with the symptoms of acute parenchymatous nephritis, and yet for that patient to present thickened arteries and even eye changes, which show that the disease really dated long before the commencement of the so-called acute attack—in other words, that the patient has got acute nephritis in both cases alike because the kidneys were already diseased. Indeed, I think we may almost go so far as to say that as in children acute parenchymatous nephritis raises a strong presumption in favour of a recent attack of scarlet fever, so in the adult it ought to suggest the suspicion that the kidneys were previously unsound—in other words, granular. Of this I am quite sure: that if, in cases of acute nephritis in the adult, the signs of granular kidney be looked for, they will very frequently be found.

In cases of granular kidney, therefore, the history may be misleading, for an acute nephritis, if there be the history of an attack, may be the consequence of a pre-existent granular kidney quite as likely as the cause of it. If, then—in spite of the fact that in the majority of cases of granular kidney the history and symptoms of nephritis are lacking—granular kidney is still to be referred to some antecedent nephritis, it follows that the initial attack must either have been slight, and therefore overlooked, or else that it was of some peculiar and specially latent kind.

It is evident from what has been said that it is only in a very small number of cases that a history of antecedent acute nephritis can be obtained; that in still fewer instances can a case be traced from an acute initial acute nephritis to granular kidney.

It follows, therefore, that most cases of granular kidney must be referred to some other origin.

The increased tendency to refer granular kidney to acute nephritis which is obvious in many writers of the present time is due to a great extent to regarding the matter too much from an anatomical, that is, pathological, instead of clinical point of view. Pathologically, of course, such sequence of changes is quite possible, but the theories of pathology must be checked and corrected by the facts of clinical observation. The theory is one which ought to be capable of easy clinical proof, but the clinical proof, as far as I can judge, is lacking.

I do not know that I should have spent so much time in discussing the want of relation between granular kidney and acute nephritis had it not been for the frequent assumption of this connection at the present time by the distinction made between the two forms of granular kidney, the white and the red.

I now turn to the arteries. The changes in the arteries with granular kidney are general, widespread, in fact universal, throughout the whole body. They are found in all parts alike—in the kidney, for instance, as well as in the brain, eye, spinal cord, or even skin. Now, there are only two forms of general arterial change recognised in pathology, namely, atheroma and that connected with granular kidney.

It is unfortunate that in many of the investigations as to the frequency of hypertrophy of the heart in renal diseases more accurate note has not been taken of the general condition of the vessels for the purposes of excluding atheroma, for this omission deprives the results of much of their value.

As to the nature of the vascular lesions in granular kidney dispute has long raged, the one side maintaining that it was of the nature of hypertrophy, the other of a degeneration. The facts are that both changes are found, the hypertrophic changes in the earlier stages and the degenerative in the later.

So far as the hypertrophy of the arteries is concerned, it is probably, like that of the heart, secondary; for we cannot suppose that there is any antagonism between the heart and the arteries, though this was once assumed to be the case—the heart hypertrophying, it was then supposed, in order to overcome the obstruction offered by the hypertrophy of the vessels.

It certainly seems more probable that both the heart and the vessels hypertrophy together for the purpose of assisting the circulation to overcome some obstruction. If this be so, the obstruction must be peripherally seated, and must be sought therefore in the small peripheral arteries or capillaries.

If the changes in the vessels be primary then we ought to have evidence of vascular disease before we get evidence of kidney disease, and there ought to be cases in which, at the time of death, the kidneys are found not in a condition of granular change.

Cases of this kind are described, but they are very rare.

From whatever point of view, then, we regard granular kidney, whether pathological or clinical, we come to the same conclusion—namely, that, whether primarily arterial or primarily renal, granular kidney is a disease *sui generis*, and ought on that account to be treated in writing on the subject under a separate heading, and not split up, as it generally is, between diseases of the arteries on the one hand, and diseases of the kidneys on the other.

THE SYMPTOMS OF GRANULAR KIDNEY.

Granular kidney is a very insidious disease. For a long time it presents no symptoms at all, and can be recognised, then, by physical signs alone.

The only definite symptom perhaps in the early stage, and even this is not constant, is an increased frequency of micturition, especially at night; but as this has been of such gradual onset that the patient has become quite accustomed to it and does not regard it as peculiar, no complaint is made of it unless it be extreme, and the history of it is often only to be elicited on pointed questioning.

When symptoms arise the disease is already far advanced; in other words, the symptoms do not occur until late in the disease. The symptoms fall, like the lesions, into two groups, namely, cardiovascular and renal. Speaking generally, the cardiovascular are earlier than the renal. The cardiac symptoms are those of heart failure, more or less pronounced. The vascular symptoms are the more or less mechanical effects of the vascular lesion, and consist chiefly of hæmorrhage and its results. The renal symptoms are the latest to develop, and fall into two groups according as they are of gradual development or sudden onset, and they are frequently described as chronic and acute uræmia respectively. I should prefer to call them acute and chronic renal toxæmia. Both alike are to be connected with the wasting in the kidney and its consequent defective action.

The gradual and progressive wasting of the kidney is attended with the gradual and progressive development of the chronic forms of uræmia. Renal cachexia is the name that I should prefer to give to chronic uræmia. It strongly resembles, both in character and course, the cachexia that is seen in a variety of other diseases, for example, in Addison's disease, in the later stages of cirrhosis hepatis, in diabetes, and malignant disease. It consisted in a gradually increasing anæmia and asthenia, associated with various miscellaneous symptoms.

The symptoms are similar in kind, and differ from them only in the rate of development, to those that are seen after complete obstruction of the ureters or removal of the kidneys, and have been experimentally produced in animals, or observed in man as the result of pathological causes or surgical operation.

The symptoms in all these cases are similar, but differ from those which are usually described as acute uræmia, and the difference is probably not one of degree only but of kind, so that I think they ought to be distinguished by different names; for the first I should reserve the term renal cachexia, for the second I should use that term which is generally accepted, namely, uræmia, and both alike, both the cachexia and the uræmia may be of slow or sudden development.

Granular kidney is often said to be a disease of middle life, and this is true in the sense that the symptoms are usually evident then, that is, the disease is far advanced, and death may be near. The disease, however, must have commenced long before, perhaps years, so that even in these cases in middle life the onset of the disease is to be traced back, it may be, to quite early life.

Not only is the disease in many cases to be referred to early life, but it may be advanced and fatal even in quite early years. That granular kidney may occur in the young, even in children, is now generally recognised, but though rare it is still regarded as a much greater rarity than it really is. I have recorded an extreme instance fatal at the age of 18.

Guthrie has recorded several instances in small children. The following figures give the general age-distribution above 20 years.

Table of Age at Death.

Age.	Dickinson.	Fagge,	Bartels.*	Galabin.	St. Bartholomew's Hospital †	Total.
About 20	1	—	4	2	3	10
20–30	17	—	4	6	15	42
30–40	38	18	9	12	25	102
40–50	73	39	4	19	59	189
50–60	55	36	7	21	56	175
60–70	43	24	5	16	36	124
Above 70	15	4	—	3	12	34

* One death at 18, one at 19.
† One death at 19, one at 20.

Table showing Age Distribution at the time of Death of 203 Cases at St. Bartholomew's Hospital.

20		20–30		30–40		40–50		50–60		60–70		70–80	
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
3	—	6	9	11	14	33	26	42	14	27	9	7	5
3		15		25		59		56		36		12	

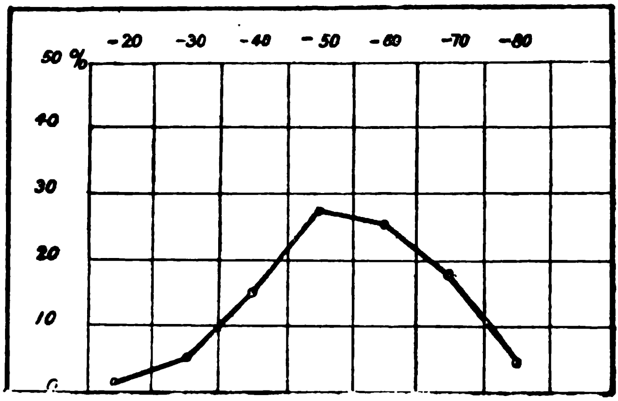


Diagram constructed from the combined statistics given, showing the percentage age-distribution at time of death.

I propose to deal with the signs and symptoms of the disease in this order:

1. The physical signs.
2. The cardio-vascular symptoms.
3. The renal symptoms.

THE EARLY STAGES: THE PHYSICAL SIGNS.

It is the early signs of the disease rather than the late symptoms that are of importance. What is required is an early diagnosis before the disease is far advanced, and this is essential if light is to be thrown upon the causes and course of the disease, or if influence is to be successfully exerted upon it by treatment.

In the early stage the diagnosis is to be made by physical signs and not by symptoms. The physical signs are high tension and thickened arteries, hypertrophy of the heart, and albuminuria. Where these are all present together the diagnosis is easy, even in the young, and the diagnosis thus made during life is verified *post mortem*. But if one or other of these physical signs is absent, the question arises, Of what significance are those which remain? For instance, if albuminuria be absent, what do high tension and thickened arteries mean? Or, if the arteries are not thick nor the tension high but albumen be present, what is the significance of this albuminuria? Each of these questions is of great clinical importance and difficulty.

We know that the vascular changes, namely, thickened arteries and high pulse tension, develop so early in the course of granular kidney that they seem to be—I do not say they are, but they almost seem to be—rather coincident, or as some maintain even antecedent, phenomena than effects consequent upon and produced by the kidney lesion. If this were so, vascular changes might be found without the kidney lesion, and such cases are described. I have seen what I believe to have been one case of this kind, but as the kidney has been lost, and I have not had an opportunity of re-examining it, I do not like to lay much stress upon it. The late Professor Kanthack, in discussing this subject with me shortly before his illness, told me he had a case of this kind in his collection, and would lend it to me for exhibition to-day, but this failing me, I have no fresh facts of my own to bring forward.

HYPERTROPHY OF THE HEART.

Post-mortem evidence would point to hypertrophy of the heart as a most important sign of granular kidney, and so it is in the later stages, where the cardiac enlargement is such as to be easily made out. The heart may reach an enormous size. I show a case from the St. Bartholomew's Hospital Museum, in which the heart weighed 28 ounces.

In the early stages it is of very little assistance, because of the difficulty in diagnosing it then, especially if in slight degree only.

The frequency with which hypertrophy of the heart is found associated with granular kidney *post mortem* is great, but at the same time it should be noted that it is not constant.

Goodhart gives 89.6 per cent., Ewald 84 per cent., Galabin 80 per cent., Kanthack and Holmes 90 per cent.

The value of these results is unfortunately depreciated by the almost constant omission of any reference to atheroma in the vessels, for atheroma will equally lead to hypertrophy of the heart. If atheromatous degeneration in the vessels ought to be distinguished, as I maintain, from the changes met with in granular kidney, hypertrophy of the heart ceases to be so important and conclusive a diagnostic sign as it has often been regarded.

The only signs upon which reliance can be placed for the diagnosis of hypertrophy of the heart during life are the increased area of cardiac dulness and displacement of the apex beat downwards and outwards; but in the early stages—that is, with hypertrophy of slight degree—these signs are not marked; and even in the late stages, when the hypertrophy is considerable, they are easily masked by the condition of the lungs. Considerable hypertrophy of the heart may be present and yet be incapable of demonstration by physical signs if, as often happens in granular kidney, it is associated with pulmonary emphysema.

The accentuation of the aortic second sound, which is sometimes described as if pathognomonic, is really valueless, for it will occur wherever the tension is raised from any cause whatever, and will be absent even in granular kidney when the tension falls. The same is true of the prolonged first sound, though not quite to the same extent. The hypertrophy of the heart is probably secondary to the vascular changes and the result of them, and therefore not of the same prime importance as they are or so likely to be met with early.

THICKENED ARTERIES.

Thickening of the arteries is one of the cardinal signs of the disease, and is never absent in advanced cases. Thickening of the arteries is by no means uncommon in young people, and the question as to what its significance is becomes important in relation to the early stages of granular kidney. As the thickening of the artery must be estimated by the finger it is necessary to have some sort of guide as to what may be considered real thickening of the artery.

Of course the arteries grow thicker as age advances, as the result of atheromatous changes, and in elderly persons due allowance must be made for this. In a young person the healthy artery cannot be distinctly felt with the finger, and when pressed upon it flattens out like a piece of tape and can be hardly felt; but if the artery be thick it can be rolled from side to side, and it feels then like a piece of straw or rush, or even, when much thickened, like a pipe stem.

This is not simply the result of increased tension, for the artery may be obliterated by one finger, and still felt by the other as thick as before, and even when the tension is low, as it may be in the later stages, the thickening of course does not disappear.

There are, no doubt, physiological differences in the thickness of natural arteries, but making allowance for this possibility, it is not uncommon to find the arteries so much thickened in young people as to be of necessity pathological, and it is thickening such as this that I say is by no means uncommon. Now at this age the thickening cannot often be of an atheromatous nature, for although atheroma does occur in early life, it is very much rarer than is the thickening I am now speaking of. The change is no doubt muscular in great part, as it is in granular kidney, and the effect of nitrate of amyl upon it is the same.

We are thus driven to this conclusion, that if it is not an early indication of granular kidney, then there must be some other form of arterial disease which we do not at present recognise. Arterial thickening in young people always rouses my suspicion, and leads me to look carefully for other evidence of granular kidney. Sometimes nothing more is found, and its significance continues doubtful, but that the change is pathological there can be no question. Still, the frequency with which in these cases the signs of granular kidney are either discovered on more careful investigation, or found to develop subsequently, leads me to the conclusion that the probabilities are in favour of this being really the early stage of granular kidney.

I have no actual figures to give in proof of its frequency, but the 8 per cent. which Mahomed gives as the frequency with which the high-tension pulse occurs would represent to my mind at least the frequency of thickened arteries, and it may be that we are both dealing with the same thing, for he describes the high-tension artery as rolling under the finger, but attributes this to high tension only. Really it is due to arterial thickening and high tension.

On this point some observations of Holst are interesting, in which he showed in 14 out of 15 cases of granular kidney the vessels of the skin were thickened, though not atheromatous. Brailey's microscopical, as do Gunn's ophthalmoscopic, observations on the retinal arteries show the same thing.

HIGH TENSION.

In well-marked (that is, advanced) granular kidney the high-tension pulse as well as the thickened arteries are well recognised. The sphygmographic tracing is characteristic; it has a round or square top to the wave, after which the line falls gradually; these peculiarities can be better felt with the finger—the slow prolonged wave which the pulse makes under the finger is quite as evident as the fulness of the artery between the beats.

The contraction of the heart, which with healthy arteries causes a sudden rise, that is to say, produces a wave with a sharp and somewhat short crest, in granular kidney owing to the resistance which is offered to the circulation, instead of distending the artery greatly for a short time, spends itself in dilating the artery less for a longer time; thus the long wave with its square or roundish top is produced. The tension is measured between the pulse waves; the arteries therefore feel abnormally full as well as abnormally tense between the beats.

When the heart begins to fail the diminished force does not necessarily alter the character of the wave; the artery may be less distended, and therefore the wave not so high, but its rounded top will still persist. It may also, by diminishing the amount of blood driven into the arteries at each beat, reduce somewhat the tension, but in spite of that the pulse long retains its peculiar character.

When the tension falls the fall is due to a failure of the artery, and not necessarily of the heart at all, though both may fail together. The low tension then observed is a neuroparalytic phenomenon and a bad sign; it occurs only in the later stages of the disease, but may then continue for some time. Though the tension may be low the thickening of the arteries can still be easily made out, and is as characteristic as ever.

A persistently high tension, under ordinary conditions is of itself mischievous, but not so with granular kidney, paradoxical as this may seem. The patient is best without granular kidneys, but if the kidneys be granular it is better that the tension should be high rather than low; in other words, the patient is worse with a low tension. This explains the use of digitalis in such cases, which does so much good by raising the arterial tension.

Low arterial tension, or rather the fall in tension, in the later stages of granular kidney is of great clinical importance, the value of which Sir William Broadbent has lately emphasised.

One other phenomenon I may refer to, which, though implied by what has just been said, is not generally recognised, although easy to be observed if looked for. I refer to irregular fluctuations in tension which take place in the later stages of the disease before the tension becomes persistently low. The tension may be felt to vary considerably even in very short spaces of time; for instance, even while the finger is placed upon the pulse. These fluctuations are analogous to the flushings, the irregular respirations, and other symptoms of irregular vasomotor action which arise under similar conditions. They are very interesting and may give the earliest indications of the neuro-paralytic failure which is approaching.

In the early stages of granular kidney, go back as far as we may, as soon as the disease is diagnosible the pulse tension is high and the artery thickened. The question then arises, what is the value of a high-pulse tension in a person in whom there is not yet other evidence enough to diagnose granular kidney by?

The clinical importance of high tension has been insisted on in valuable papers written by Sir William Broadbent[3] and Dr. Goodhart[4]; and if we go back fifteen years, we come to a series of papers written on this subject by the late Dr. Mahomed.[5] All alike directed attention to the clinical importance of the fact, though they do not altogether agree in their theories or conclusions. Temporary or transient increase of tension may occur in a variety of affections, but it is not to these that I refer; I am dealing with those cases in which the tension is persistently raised. Now, Mahomed's view was that these were the early initial stages of granular kidney, and this I take to be also Goodhart's view.

I do not think Mahomed's work has been estimated at its true value. The term he introduced may have had something to do with this, for the expression, the pre-albuminuric stage, of which he considered high tension to be the chief indication, seemed to assume entirely what he had to prove. His work was based on careful clinical observation, and I believe that he was in the main correct, though possibly he attributed too much to high tension and too little to the thickening of the arteries to which I have referred. Even his own descriptions show that high tension was not the only factor in the pulse, but that the arteries were also thickened.

Sir William Broadbent, differing as he does from Mahomed in theory, yet attaches quite as great significance to the increase of pulse tension. He describes as the ultimate results of this increased tension a variety of symptoms—for example, cardiac failure, general disturbance of health, a sort of cachexia, and even hæmorrhage, which, as he stated, could be truly predicted long before it occurred.

These are the same symptoms as those produced by advanced granular kidney. If the kidneys are not granular in these cases—and of this no proof is given—the arteries must become diseased if hæmorrhage is to occur, for it can hardly be maintained that mere increase of tension can lead to the rupture of healthy vessels. If the vascular change is not atheromatous, nor associated with granular kidney, what is it?

So far as the results to which high tension leads, there is general agreement, but opinions differ as to whether these results are to be referred to granular kidney or not. These differences in theory would remain a matter of opinion still, if there were not some fresh facts by which to elucidate them. These have been obtained by the more exact and careful study of the early eye changes met with in granular kidney.

As I shall show shortly, our knowledge of the early stages of albuminuric retinitis has been greatly extended of recent years. If in many of these doubtful cases of high pulse-tension and thickened artery albuminuric retinitis or the early changes which lead to it are found, and that even in cases in which albumen may not be present in the urine the diagnosis of granular kidney will be surely justified. Considering that albuminuric retinitis is not invariably found even in advanced granular kidney, the fact that it can be discovered in these cases of doubtful nature is a significant fact which throws a light upon many of those other cases in which for the present the doubt must still remain more or less unsolved.

None of the writers mentioned lay any stress upon eye changes in their papers—at any rate, not as a means of diagnosis; but the importance of these early retinal changes was not then so fully recognised as now. Some, at any rate, of these doubtful cases must be referred to the group of granular kidney, and the probability that a much larger number of them may be fairly so referred is so far increased.

It appears to me, therefore, that there is presumptive evidence in favour of regarding these cases of high pulse-tension, as well as those of thickened arteries in the young, as the initial stages of granular kidney which we are in search of.

I do not wish to go beyond my facts or to speak dogmatically upon points which may still be open to question, but this appears to me the conclusion to which the facts point. At any rate, a larger number of these cases can now be proved to be granular kidney than has been hitherto supposed.

REFERENCES.

[1] For these figures I am indebted to Mr. Woodbridge. They will be published *in extenso* in the *St. Barth. Hosp. Reports*. [2] This paper will be published *in extenso*. The short abstract now given of it is of the nature of a preliminary report only. [3] BRITISH MEDICAL JOURNAL, August, 1883. [4] Bradshaw Lecture, 1885, BRITISH MEDICAL JOURNAL, ii, 327. [5] *Lancet*, January 11th, 1879, etc.

PROFESSOR VON ESMARCH has resigned the Chair of Surgery in the University of Kiel, in which he has been succeeded by Professor Helferich, late of Greifswald.

THE late Sir William Gray, shipbuilder, has left the sum of £2,000 to the West Hartlepool Hospital.

SOME UNCERTAINTIES IN THE DIAGNOSIS OF CEREBRAL TUMOUR.

By ERNEST SEPTIMUS REYNOLDS, M.D.LOND., F.R.C.P.,
Senior Physician to the Ancoats Hospital, Manchester; Physician to the Manchester Workhouse Infirmary.

IN looking over the records of brain surgery one is struck by the very large proportion of cases in which no tumour was found at the operation. Thus in Starr's[1] list of 162 cases no tumour was found in 48; in Knapp's[2] list of 405 cases none in 92, and Bergmann[3] only found a growth in 1 case out of 6. Besides these there are many isolated cases of the same kind scattered through literature. It seems therefore to be important and interesting to inquire into the causes of these deficiencies.

Uncertainties in the diagnosis of brain tumour may be grouped into two large classes. (A.) When no tumour exists, but other diseases are mistaken for it. (B.) When a tumour is present, but (*a*) the symptoms are ascribed to some other disease; (*b*) there is a mistake in localisation; (*c*) there is uncertainty in the nature of the tumour.

A. DISEASES WHICH MAY SIMULATE BRAIN TUMOUR.

1. *Chlorosis.*—Very rarely optic neuritis, generally of rapid onset, is present in this disease; and if it is associated with intense headache and perhaps with hysterical motor or sensory symptoms, a mistake in diagnosis may easily occur.

2. *Uræmia* with intense headache, optic neuritis, convulsions, and coma may simulate brain tumour, especially if the convulsions are unilateral in character. The unilateral form of uræmic convulsion, without cerebral hæmorrhage, is spoken of by Sir William Broadbent in his book on the pulse, and I remember seeing a case of the kind at the Manchester Royal Infirmary (under the care of Dr. Graham Steele) some years ago. The character of the optic neuritis, together with the history and symptoms of Bright's disease, should of course make the diagnosis clear.

3. *Chronic lead poisoning*, if associated with lead encephalopathy, with convulsions, delirium, sometimes acute mania, and coma with optic neuritis and severe headache, may suggest the presence of brain tumour. This idea may be strengthened if hemianæsthesia is present, and particularly if there is any paralysis of the cranial nerves. Buzzard (quoted by Gowers) has described paralysis of the third cranial nerve in lead poisoning; and I have at present under my care a man suffering from chronic plumbism with gout and paralysis of both sixth cranial nerves; a few weeks ago the right nerve was totally paralysed, the left slightly so; this has now almost recovered, so that he has no apparent strabismus, but there is double vision when strain is put on to either of the external recti.

4. *Hysteria* may of course simulate brain tumour, particularly when there is headache, vomiting, convergent strabismus, and various motor and sensory disturbances.

5. So-called *reflex epilepsy*, in which the convulsions are unilateral, is sometimes difficult to distinguish from symptoms due to coarse irritation of the cortex of the opposite side. These convulsions may be caused by irritation of the dura mater due to old injury, by subdural hæmatoma, or by irritation (in dogs) of the inner surface of the exposed dura mater (Franck quoted by Mills[4]). In many of these cases the convulsions are on the same side of the body as the irritation, and are considered to be due not to irritation of the cortex but to irritation of the fifth cranial nerve supplying the dura mater, and especially distributed to its inner surface. Similarly reflex epilepsy, unilateral in character, may be set up by pressure on old scars in the region of the fifth cranial nerve, or by any peripheral irritation of the fifth nerve as from lesions of the ear, eye, nose, teeth, face, or scalp. Injuries of nerves or an isolated fibroma on a nerve in other parts of the body have been known to set up these unilateral reflex epilepsies.

6. Many *anomalous cases* have been reported from time to time in which there were symptoms apparently due to coarse irritation of the brain cortex, but in which the patients have either recovered without operation or after an operation in which nothing was found. Thus Pearce Gould[5] reported a

case in which there was headache, aphasia, twitchings, facial palsy, and paralysis of the right side of the tongue with slow pulse. A tumour was supposed to be present in the frontal lobe and the skull was trephined; nothing was found; the patient gradually improved, and, with the exception of an occasional epileptic fit, the symptoms all disappeared. Phillips[6] mentions a case of old injury to the head with severe headache, vomiting, slow pulse, and a tender spot on the head, and slight local twitchings just before the operation. Nothing was found on trephining, but the patient recovered perfectly.

I had the following curious case under my care at the Manchester Workhouse Infirmary:

The patient was a girl, aged 17 years. Her mother stated that the patient had a fit when she was 2 years old, and again when she was 6 years old. After this the fits occurred every year until she was 15; each attack consisted of a series of fits, which lasted about a fortnight. After the last attack she was paralysed on the left side for about three months, gradually recovering. About November 18th, 1897, the fits commenced by twitching of the muscles of the left eye, probably the orbicularis, while the patient was at her work making cigars. She went home and the spasms then spread over the whole of the left side, and she was apparently unconscious until she was brought to the hospital.

On admission, she was suffering from well-marked attacks of left-sided Jacksonian epilepsy, always commencing in the face; the spasms rapidly passed to the left hand and arm. In a day or two the spasms also affected the left leg; each attack consisted of tonic then clonic spasm, followed by transitory paralysis. After recovery the patient told me she could not remember the attacks coming on nor what happened in the interval between the attacks. During the intervals, however, she was apparently conscious and answered questions. The number of fits a day increased rapidly, until the maximum of 275 on December 10th was reached.

The case exactly simulated one of cortical tumour, but as the physical condition of the patient remained good, and as the mother constantly asserted from former experience that the attacks would cease in a fortnight, the question of operation was postponed. On December 11th the number of fits was 125, and the next day she was apparently well, and after a few days she was discharged recovered. In spite of the extraordinary number of the attacks, which were always limited to the left side, the temperature was never raised. She was fed either by the mouth or rectum; she was incontinent as regards both urine and fæces throughout the attack. The optic discs were normal, and there was no sign of paralysis of the left side when the fits had entirely ceased, but the left knee-jerk was increased, and there was marked left ankle clonus. During the attacks 30 gr. of chloral, with 45 gr. of potassium bromide were given every four hours, but without the slightest effect. There seemed to my mind no doubt that the attacks were genuine, and not in any way hysterical; there was no sign of hereditary or acquired syphilis. There was a large scar on the head with absence of the hair, but this dated from a ringworm contracted when the girl was 3 years old, and evidently was the remains of tænia kerion.

Another somewhat similar case was that of a lady, aged 60, whom I saw in consultation with Dr. John Scott, of Manchester, on January 25th, 1898.

The patient was said to have had rheumatism some years earlier, with secondary heart disease, but there was no evidence of heart mischief when I examined her. She had had an attack of "fainting" about three years before, and these attacks had recurred from time to time since; in some of these attacks she had been unconscious for about half a minute, and had fallen; in others she had momentarily lost power in the left hand and dropped anything she was holding in it.

About January 10th, 1898, she had severe pain on the top of the head, and this continued more or less day and night, partially preventing sleep until January 22nd. On this day she was feeling well, and was playing cards in the evening. About 1 A.M. on January 23rd she apparently had an attack of general convulsions in bed, "lasting about twenty minutes." Her husband was awakened by the bed shaking. She was then quiet for about an hour, when she had an attack of "spasms" on the left side of the face only. These attacks, which consisted of tonic and clonic spasms, and subsequent transitory paralysis, came on every five or ten minutes day and night, and affected principally the lower facial fibres, and never spread to any other part of the body, and though of course accompanied by loss of power to speak, were not accompanied by any unconsciousness. They were still occurring when I saw her on January 26th. The tongue was covered by a thick plastered coat such as one so often sees in cases of cerebral tumour: there was no optic neuritis, no vomiting, and no tenderness of the skull. As the patient seemed to be getting rapidly exhausted, and as the symptoms so strongly pointed to a gross irritating cortical lesion, an operation was strongly recommended, but the friends would not allow it. Large doses of chloral and bromide were prescribed together with stimulants and careful feeding.

The fits continued with unabated frequency on January 27th and 28th, but began to abate on the evening of the latter day, and she slept well that night, although several fits occurred which did not awaken her. On January 29th she had four attacks, on January 30th two attacks, and then complete recovery set in.

She remained well until the beginning of October, when she had a "fainting" attack in the street and fell unconscious, and the tongue was bitten. A few days afterwards she had a single attack of spasm without unconsciousness on the left side of the face, and a similar attack occurred the next day, and occasionally, she says, she has slight attacks of dizziness.

I saw the patient on November 10th, and she then appeared perfectly well in all respects.

What the exact diagnosis is in these two remarkable cases I am at a loss to say. The second case suffers probably from occasional attacks of genuine epilepsy, both *grand mal* and *petit mal*, but the facial convulsions without loss of consciousness are a puzzle to me. Undoubtedly, both cases from the persistent localised epileptiform seizures suggested some gross cortical irritation very strongly, but the nature of this irritation seems a mystery.

7. *Syphilis* of the cranial nerves with severe headache, but with no signs of cortical irritation, may simulate the early signs of a brain tumour, and the diagnosis may only be cleared up by time and antisyphilitic remedies. If a syphilitic meningitis with local convulsions and optic neuritis be present, then it may be even more difficult to exclude the possibility of tumour.

8. *Meningitis* or brain *abscess* may be mistaken for tumour, especially if slight optic neuritis is present, if the symptoms have had a slow onset, and if there is no apparent cause for the meningitis or abscess.

9. *Polioencephalitis* may give rise to symptoms which simulate those of pontine tumour.

B. Symptoms due to Brain Tumour mistaken for other Diseases.

1. *Hysteria* is not infrequently assigned as a cause of the symptoms of tumour, especially when the latter occurs in young girls, and there is no optic neuritis or paralysis of cranial nerves. It should be remembered that, in neurotic subjects true hysterical symptoms may be present with or precede symptoms of organic disease such as tumour or disseminated sclerosis, and so give rise to error.

2. *Reflex epilepsy* may be assigned as the cause of the unilateral convulsions of brain tumour, especially if there is an injury or tumour on a nerve. I saw a case of this kind some years ago in the Manchester Royal Infirmary, where a patient with an old injury to and a scar over the left ulnar nerve suffered from left-sided unilateral epilepsy commencing in the left arm; there were no other symptoms for some time, and the case was diagnosed as reflex epilepsy. Some time after the patient died, and a gumma in the right motor cortex was found.

3. *Hydrophobia* has been diagnosed in cases in which there was a history of a comparatively recent dog bite, but in which the symptoms were really due to brain tumour. This occurred in a case related to me by Dr. Bevan Lewis (who made a *post-mortem* examination) in which a small parasitic cyst was found in the neighbourhood of the medulla.

4. Cases of *senile dementia* are frequently admitted into workhouse hospitals. They take no notice of their surroundings, have to be fed, are incontinent, will not answer questions, have no friends to give a history of their illness, and lie curled up in bed. In two such cases, presenting no other symptoms, which occurred at the Manchester Workhouse Infirmary, brain tumours in the frontal lobes were found at the *post-mortem* examination, and had been quite unsuspected during life.

5. *Circulatory changes*, if the symptoms of brain tumour come on suddenly, especially in old persons, may be assigned as the cause of the symptoms. In a case sent to me by Dr. Eatough, of Mossley, near Manchester, a man, aged 56, but looking older, and with no previous symptoms, suddenly became unconscious while sitting in his chair. This condition lasted for about 15 minutes, and his left side, especially the arm, was found to have lost power. This gradually increased. A few days afterwards he had an attack of "trembling" in the left arm and leg, without loss of consciousness, and there was some loss of sensation in the same limbs; the optic discs were normal, and there was no headache or vomiting. Subsequently, however, other attacks of left-sided convulsions with loss of consciousness occurred; there was rapid loss of power on the left side, with optic neuritis, and there was no longer any doubt that a tumour at or near the right motor cortex was present. Death ensued within three months after the commencement of the illness. No *post-mortem* examination could be obtained.

6. If *ear disease* be present, or there is a history of injury, the symptoms of tumour may be ascribed to abscess, especially if there is no optic neuritis; similarly, meningitis may be given as the cause of the symptoms of tumour, particularly if these develop rapidly.

C. UNCERTAINTIES IN THE DIAGNOSIS OF POSITION OF CEREBRAL TUMOUR.

Mistakes in localisation not infrequently occur, and in this connection may be mentioned those in which no tumour was found at the operation, but after death the tumour was found at the point of operation, sometimes even in the resulting hernia cerebri. This failure may have been due to want of deep exploration of the cerebral substance, but in other cases punctures and incisions were made into the brain but without disclosing the tumour which was present at the spot. Such cases are reported by Dinkler,[7] Köster,[8] and Schultze.[9] The reasons for this failure should be given by the surgeon. I can only suggest that at present few individual operators are so sufficiently familiar with the aspect and feel of the healthy brain substance as to be always able to differentiate it for tumour growth, especially if this is a soft diffuse glioma. Sometimes a tumour is present on the side expected but not at the spot diagnosed. In the case of a woman at the Manchester Workhouse Infirmary, there were marked and recurring right-sided epileptiform seizures spreading over the face, arm, and leg, together with other symptoms pointing to tumour of the facial area of the left motor cortex. I referred the case to my surgical colleague, Mr. Joseph Collier, for operation, and he agreed that it was a suitable case, at any rate, for exploratory trephining. Before arrangements could be made, however, the patient had several more fits in rapid succession and died. *Post mortem* a tumour was found in the left second temporo-sphenoidal convolution involving the grey and white matter; the motor cortex appeared normal.

In a case recorded by Schiller,[10] the tumour was supposed to be in the left arm centre. It was not found at the operation, but at the *post-mortem* examination one small tumour was found at the posterior part of the left posterior parietal lobule, and a larger wedge-shaped tumour on the median aspect of the left hemisphere in the quadrate lobe, and a cyst in the left corona radiata.

In one of Hitzig's[11] cases, where trephining over the left motor centre was unsuccessful, a tumour was found *post mortem* on the median surface of the left hemisphere, the oldest part being in the centrum ovale, and had invaded the gyrus fornicatus and the corpus callosum, and pressed on, but not invaded, the central convolutions.

Difficulties often arise in distinguishing between tumours of the cerebellum and those of the frontal lobe, as illustrated by a case of Hitzig's,[12] in which a diagnosis of tumour in the right cerebellar hemisphere was made, but *post mortem* a large cystic glioma of the frontal lobe, flattening the second, third, fifth, and sixth nerves, and the right half of the pons was found. As Bruns[13] and others have pointed out, ataxia and disturbances of equilibrium are found both in frontal and cerebellar tumours, and a distinction is only possible if symptoms due to pressure on neighbouring structures are present.

In other cases tumours in the internal parts of the brain are mistaken for those near the cortex. Thus Bury,[14] in a case where the symptoms were giddiness, left-sided paralysis, headache, nausea, blindness, and nystagmus diagnosed a tumour to be subcortical near the motor area, and an unsuccessful operation was performed. The patient died two months afterwards, and a tuberculous tumour of the optic thalamus was found. In Gibson's[15] case, in which during life there were unilateral spasms and contractions, an operation revealed no tumour, but this was found *post mortem* in the caudate nucleus and anterior part of the internal capsule. Zeller's[16] case complained of pain over the left parietal bone, double vision, loss of memory, double choked disc, difficulty in walking, and spasms of the right arm. A tumour of the anterior lower part of the motor region was diagnosed, but no tumour was found at the operation. After a slight improvement the patient became worse and died, and *post mortem* the tumour was found in the left caudate nucleus, and it sent a process laterally and obliquely upwards into the white matter, but the cortex was not involved.

As I have already mentioned, irritation of the dura mater may cause convulsions on the same side of the body and lead to errors of localisation. In a woman at the Manchester Workhouse Infirmary, suffering from primary carcinoma of the gall bladder with numerous secondary growths, unilateral convulsions on the right side set in, but at the *post-mortem* examination the only cerebral growth was one limited to the dura mater of the right side.

D. UNCERTAINTY IN THE NATURE OF THE TUMOUR.

Intracranial aneurysm may be diagnosed as a tumour or *vice versâ*, and a distinction is often impossible. Apart from an accurate diagnosis of a tuberculous or syphilitic growth, a distinction between the other forms of primary cerebral tumour is often impossible during life. As Gowers says, the diagnosis of the exact nature of the tumour is generally "hardly more than a guess," and "a guess that is almost as likely to be wrong as right." Yet it would be of great benefit if one could distinguish between the diffuse gliomata which are hardly suitable for operation, and the sarcomata which generally have a well-marked limit, whether they spring from bone or membranes, or are within the brain substance, and which can be thus more or less easily "shelled out" at an operation.

CONCLUSION.

It will be seen from the above sketch of a very large subject how difficult it may be for a neurologist to give an accurate opinion on the precise locality and nature of a brain tumour when required to do so by a surgeon before he undertakes an operation; and it can be understood that the difficulties and uncertainties of brain surgery are not so much those of surgical technique or of untoward after-affects, but occur at the outset and with our present knowledge may be well-nigh insurmountable.

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ON THE REMOVAL OF A FRAGMENT OF STEEL FROM THE RETINA WITH THE ELECTRO-MAGNET,

WITH NOTES OF TWO CASES.

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SINCE the year 1882,[1] when I described the electro-magnet devised by me for the extraction of splinters of steel or iron from the interior of the eye,[2] many instances have been recorded by me[3] and others illustrating the use of the electro-magnet in ophthalmic surgery. Its value, and the class of instances in which it is of service, have become generally recognised. The record of isolated cases is hardly, therefore, of interest or value unless there are some special features pertaining to any particular instance. That there are, such, however, in the case related here will at once be recognised. To remove a foreign body from the background of the eye with the retention of perfect sight ($\frac{6}{6}$) is a satisfactory event in ophthalmic surgery.

CASE I. *Removal of Fragment of Steel from the Retina: Result, Vision* $\frac{6}{6}$.

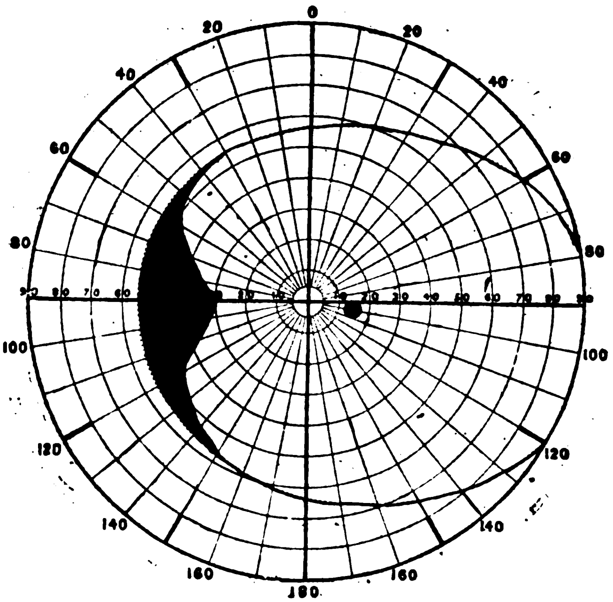
History.—On November 5th, 1898, Mr. H. B. M., aged 22, consulted me on account of an injury to his right eye. On October 24th he was driving a wedge with a hammer, and a splinter flew off and struck the right eye. He cannot say whether the fragment was from the wedge or from the hammer. He felt a slight shock to the eye at the time and sought medical aid, and later he was referred to me.

Nature of Injury.—Examination at this visit to me on November 5th disclosed a small linear wound at the periphery of the cornea, at its outer edge, corresponding to about the centre of the palpebral opening. Beneath this corneal scar was a small opening in the iris at the periphery, which at once suggested the probability of the foreign body having penetrated and being located in the globe. Vision = $\frac{6}{6}$. The media were clear, but in the fundus towards the periphery on the outer side, just above the median line, a mass of whitish effusion was noticed, in size equal to about 2 diameters of the optic disc. There was only at one point anything resembling the glistening noticeable when a metallic body is embedded in the retina, and this was very trifling. The situation of the effusion corresponded exactly to the line a foreign body passing along the track indicated by the corneal scar and the wound in the iris would take, and no doubt was left in my mind that the fragment of steel was actually embedded in the retina and coated over with this whitish effusion.

Operation.—The gravity of the case was pointed out to the patient and to his parents. Consent was obtained to an attempt to remove the foreign body with the electro-magnet, and the operation was performed on November 9th. The site selected for incising the sclerotic and introducing the electro-magnet was between the external and inferior recti; indeed, a little external to the latter appeared the best situation from which to at once advance the point of the electro-magnet to the location of the foreign body. Cocaine was therefore instilled, and the conjunctiva separated from a point in front of the intended puncture back towards the equator. After bleeding was stopped the sclerotic was incised, and the point of the electro-magnet was introduced and advanced to the situation of the foreign body. A second introduction was necessary, and then the piece of steel was extracted; it weighed 0.16 gr. One surface was coated white, and this demonstrated, if further testimony were necessary, the fact that it had been situated as diagnosed, one surface lying in the retina and the other coated over with effusion. The conjunctiva was united by sutures.

After-History.—The recovery was uninterrupted. It is noted on December 16th that there is still a whitish mark where the foreign body was situated, and pigment is becoming deposited in the neighbourhood. Vision=$\frac{6}{6}$, and the slight alteration in the field of vision, as shown by the accompanying perimeter chart, illustrates how complete has been the restoration of vision.

Right Eye.



This was the second instance during the year 1898 in which a splinter of steel, diagnosed as being embedded in the retina by the ophthalmoscope, has been successfully removed by me with the electro-magnet. The previous case is recorded in vol. xviii (1898) of the *Transactions* of the Ophthalmological Society, and reference is also there made to an earlier case of removal of a piece of metal from the retina by me, and to instances recorded by others. The other instance under my care last year very closely resembles that related in the present article.

CASE II. *Removal of Fragment of Steel from Retina: Lenticular Opacity: Vision* $\frac{6}{24}$.

History of Injury.—The right eye was injured; the splinter of steel had entered at the sclero-corneal junction at the inner side (not outer), and there was a hole in the iris through which it had passed, and the track the foreign body had taken was made out by the opacity it had caused at the periphery of the lens. Examination with the ophthalmoscope disclosed the fragment of metal fixed in the retina in the lower and outer quadrant. The glistening of the steel was distinct, but it was surrounded and partially covered by whitish exudation. The vitreous otherwise was but little disturbed, and vision equalled about fingers.

Operation and Result.—The sclerotic was incised between the internal and inferior recti, and the electro-magnet was advanced to the situation of the foreign body. On withdrawing it the foreign body was not attached. Again the electro-magnet was passed into the eye and a click was immediately heard, but with a like result. A careful search was made round the wound to ascertain if the splinter had been peeled off when the electro-magnet had been withdrawn, but it could not be found. A third time the electro-magnet was advanced to the situation of the foreign body; a click was again heard, and this time on withdrawing the instrument the piece of metal was found adhering to it. The exact situation of the fragment in the retina had been ascertained, but the splinter was clearly too firmly fixed, either in the retina or glued by adhesions of lymph, to be detached at the two first occasions it was brought into contact with the electro-magnet. The opacity in lens remained unaltered and vision=$\frac{6}{24}$.

It has for some years been recognised that foreign bodies may be tolerated for lengthened periods in the fundus oculi with retention of vision. I recorded such an instance in 1878 in the Royal London Ophthalmic Hospital *Reports*,[4] and have reported several instances since,[5] and others, including Knapp, have done the same. Such a case as I have recorded in this paper, together with the other similar instance I have mentioned, very properly raises the question whether foreign bodies so situated should be left alone or surgical interference adopted. My feeling with such evidence before me is naturally more in favour of interference than it was formerly. But it must be recognised that the fixation or embedding of a foreign body is always a hindrance to its removal by the electro-magnet. In each instance the possibility of success must be carefully weighed, and it is important that the situation of the fragment be exactly located, so that the point of the electro-magnet be advanced immediately to it, and thus the prospects of its successful removal be materially increased.

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A CASE OF PROFUSE SPONTANEOUS HÆMORRHAGE INTO THE URINARY BLADDER.

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VESICAL bleeding may arise from a variety of causes, and blood may reach the bladder from the surrounding structures, but in the majority of instances the amount that is found at any one time in the cavity of the viscus is but slight. Profuse hæmorrhage, leading to a collection of blood so as to distend the bladder, is not a very frequent occurrence, and when it does take place is not altogether simple in its treatment. Such loss of blood into the organ is usually the result of the presence of a papilloma of the vesical wall, but the bleeding may be the outcome of operative interference, or it may be spontaneous.

Malignant disease sometimes causes much hæmorrhage, so likewise a congested prostate. Operations, such as lithotrity and suprapubic cystotomy, are occasionally followed by considerable bleeding. Possibly also hæmophilia must be included as a cause, but it is not usual to get great loss of blood in cases of rupture of the viscus.

The record of the instance of profuse spontaneous hæmorrhage into the bladder which is here given is chiefly of interest from the point of view of treatment.

History.—A man, aged 45, was admitted to the West London Hospital on August 20th, 1898, and gave the history of his condition briefly thus: He was a ship-yard painter and had been engaged in painting in a confined place for twelve hours nearly continuously. At the expiration of this time he found that he was unable to pass his urine, although up to this period he had never experienced any difficulty whatever in micturition, and there had not been, as far as he knew, anything abnormal with his water, he being especially confident that he had never passed any blood with it.

Soon after the inability to relieve his bladder came on he began to have a severe pain in the hypogastric region. He returned home, and still being in distress he was seen by his medical man, who passed a catheter with ease, but failed to draw off more than a few drops of blood. The patient was therefore at once sent into the hospital.

Condition on Admission.—When seen there he was evidently in great agony, somewhat collapsed, and distinctly anæmic. On examining the abdomen I found an oval swelling reaching upwards to the level of the umbilicus. This was easily palpated and could be even seen, the patient being of spare habit. The tumour was dull to percussion, but had a rather more firm feel than is usual with a bladder distended with urine. No fluctuation was obtained. The pulse was weak and rapid. A full-sized catheter was passed without difficulty, being introduced its whole length, but only evacuating a small quantity of blood. The finger inserted into the rectum did not reveal that the instrument had transgressed the urethral canal, and there was no evidence of free fluid in the peritoneal cavity. It was concluded that the case was one of profuse hæmorrhage into the bladder, and I therefore decided to explore the interior of the viscus from the perineum.

First Operation.—Accordingly, a medium perineal section was made and a catheter introduced through this opening into the bladder. This, when it had passed for nearly its full length, drew off about a pint of highly blood-stained urine, and at the same time the hypogastric swelling considerably diminished, but did not entirely disappear. The blood clot which was in the bladder was as far as possible removed by irrigation, yet it was clear that all had not been evacuated. The introduction of hot water checked the hæmorrhage almost completely, and a catheter having been tied in the patient was sent back to bed. About four hours later it was found by the house-surgeon that bleeding had recommenced and that the hypogastric swelling was already again in evidence.

Second Operation.—I was sent for, and on arrival an hour later determined that the right line of treatment would be to open the bladder in the suprapubic region. This revealed a mass of blood clot within the viscus, which was speedily scooped out with the aid of a spoon. Search was then made for a bleeding area, but as the blood welled up from the position of the trigone, and rendered a clear view impossible, pressure was exerted on the abdominal aorta which effectually controlled the loss. Even then no place from which blood had actually flowed could be seen. No papilloma, or remnants of one, nor any other growth could be discovered, though it is possible that in the manipulations employed in the removal of the blood clot some villous mass may have been dragged off. Removal of the fingers from the aorta immediately caused a renewal of the hæmorrhage, the blood, as has been said, welling up from about the internal meatus. Water at a temperature of 120° F. was then run through the bladder, and was successful in bringing about a cessation of the bleeding. A glass tube was inserted through the suprapubic wound into the bladder, and the patient returned to the ward.

After-History.—During the ensuing night he had much pain, and the urine that drained from the pubic opening was at times very considerably blood-stained. Hæmorrhage occurred at intervals for three days, after which it entirely ceased. The suprapubic tube was removed on the fourth day and the catheter on the seventh day. There was rapid healing of both the wounds, and the patient left the hospital but little the worse for his severe hæmorrhage on September 7th, eighteen days after admission.

This case is a good example of spontaneous and profuse bleeding within the cavity of the urinary bladder. Most probably this was the result of some laceration of a papillomatous growth, which was not discovered at the time of the suprapubic opening, but which may have been successfully, though unintentionally, removed at that time.

I have to thank my late house-surgeon, Mr. W. T. Rowe, for the excellent notes that he took of the case.

FORMALIN IN THE TREATMENT AND REMOVAL OF INOPERABLE MALIGNANT GROWTHS.

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THE treatment of malignant growths, which either on account of anatomical peculiarities or of the constitutional state of the patient, or on account of the refusal of the latter to submit to the knife, cannot be treated by ordinary operative methods, must at times be a source of trouble and perplexity to almost every surgeon; and any method which will enable us to deal with such cases in a simple and reasonably satisfactory manner will be welcome to most.

The method adopted in the following case might, I venture to hope, prove a useful addition to methods already in use. The patient had a sarcoma of the cheek (second recurrence) which two experienced surgeons refused to remove by operation. When she came to me the tumour was 4 inches in diameter, and fully as large as a man's fist. At one place a mass of sarcomatous tissue had forced its way through the integument, and was giving rise to constant and rather severe hæmorrhage. It was this latter symptom I was now called upon to treat.

I tried all the usual styptic methods, but with none of them succeeded in stopping the hæmorrhage for more than a few hours, so that 2 or 3 ounces of blood were being lost daily, and it seemed as if nothing short of tying the external or common carotid could arrest the bleeding.

Remembering, however, the great power of penetration and coagulation possessed by formalin, and the rapidity of its action in this respect on dead tissues, I determined to try its effect on the living. After applying a solution of caoutchouc to protect the surrounding skin, I soaked a small pad of absorbent cotton wool with a solution of formalin containing 20 per cent. of formic aldehyde, and applied this to the raw surface, then covered it with guttapercha tissue, and held it in place with a bandage.

My expectations were more than realised; for not only was the hæmorrhage entirely stopped, but in 24 hours there was produced a hardening and necrosis of the tissues, extending nearly a quarter of an inch from the surface.

This made me think that it might be possible to remove the whole growth by first coagulating the tissues with formalin and then cutting away some of the necrosed part daily, always however leaving sufficient of the latter to prevent a recurrence of hæmorrhage. I therefore scooped out with a scalpel and sharp spoon as much of the necrosed part as I dared, and then filled up the cavity with cotton wool saturated with the formalin solution as before. Daily repeating this I was able in a very short time to tunnel right into the centre of the tumour, and eventually to remove it completely, notwithstanding that it was highly vascular, and during the process there has not practically been one drop of blood lost.

The formalin seems to exert its influence equally in all directions, and to be capable of penetrating to almost any depth if constantly applied. I have cut out a solid piece an inch in thickness at one time, although I have usually contented myself with less. On one occasion I cautiously tried injecting some of the solution into the tumour with a hypodermic syringe, but gave it up as I was afraid of producing embolism, and it gave no better result. The pain has occasionally been pretty severe, but has been held in check by small doses of nepenthe.

There has occasionally been considerable œdema of the lower eyelids and lips, and on one occasion of the cellular tissues of the neck. This caused me to suspend treatment for a few days, lest it should cause œdema glottidis. There has, however, never been any sign of such a condition. When the application of formalin is suspended for a few days, a line of demarcation forms with exactly the appearances seen in dry senile gangrene of the extremities.

To sum up, I consider the points in favour of this method are as follows:

1. It is simple in the extreme, requiring no special apparatus, and can be applied without an anæsthetic.
2. It produces no shock.
3. It does not, like electrolysis, set up a diffuse suppurative process, being not only aseptic, but powerfully antiseptic.
4. It is bloodless, and can be applied to very vascular growths, as this case shows.
5. It has very much greater penetrating power, and hence effects a more rapid removal than the usual escharotics, and its application does not like those give rise to a disintegrative or caustic process, with the resulting discharge, but is what I might term a necropoietic process, and with no discharge whatever.
6. As there is no discharge scarcely any dressing material is required, and an economy is thus effected.
7. During the paring away of the necrosed parts the macroscopic limits of such a tumour can be easily seen on the dry clean-cut surfaces, and an indication is thus given as to the direction in which it is necessary to proceed further. The pieces removed can be subjected to microscopic examination for the same purpose.
8. Above all the process appears to be efficient and safe if care is taken.

The drawbacks are: (1) The pain, which is at times pretty severe, but can of course be relieved by an anodyne; and (2) the œdema, which is always annoying, and might if extending to the glottis be fatal.

The systemic absorption of the formalin is apt to, and in this case did, produce an annoying general urticaria, thus showing its relationship to formic acid. There was at the same time a slight rise of temperature. The urticarial irritation was easily subdued by carbolic acid lotion.

THE TREATMENT OF TRAUMATIC TETANUS WITH ANTITOXINS.

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DURING the past two years I have had the opportunity of observing and treating 4 cases of traumatic tetanus. In all of them the symptoms were well marked, the spasms severe, and in all 4 there was a definite wound in a septic condition. Also in each case there was the probability of infection from soil or horse dung. In 2 the incubation period was ten days, in 1 six days, and in the other indefinite, since the infection probably took place through a chronic ulcer which the man had allowed to become foul.

The first case I saw was interesting for this reason, that the patient, a lad of 16, came under my care for his injury on the day of his accident He had a badly-lacerated wound of his thumb, with fracture of the metacarpal bone, caused by a gun accident. It was extremely dirty-looking from powder chiefly, and many shot were extracted. Doubting at the time my power to render such a wound aseptic by ordinary methods, I packed it with sulphur for the first twenty-four hours. The slough separated as usual, and I thought a healthy granulating surface remained. However, on the tenth day trismus and a stiff neck developed, and he had a sharp attack of tetanus. When the thumb was amputated after the development of the tetanus, a shot was found on the deep surface of the fractured metacarpal.

Distribution of Spasm.—The symptoms varied somewhat in the four cases. In "R.C.," in whom the point of inoculation was in the right thumb, the parts affected were, in order, the neck, the jaw, the abdomen, the right arm, the left arm, the back, and not the lower extremities at all. In "G.K.," in whom the lesion was in the right leg, the order of invasion was the jaw, back, abdomen, and face all about the same time; the legs, and later the arms, to a slight extent only. In "T.T.," in whom the lesion was on the back of his left hand, stiffness in the neck appeared first, then difficulty in swallowing, some stiffness of the jaw, slight opisthotonos, and hardening of abdominal wall. In twenty-four hours all these parts became much more affected, swallowing impossible, and he died cyanosed from spasm of the diaphragm. The limbs were not affected at all. In "A.F.," aged 14, the lesion was in the right ring finger; the arms, back, and abdomen were the first parts affected, the legs next, and the jaw not until the third day of the disease, and then only slightly. To sum up: Hardening of the abdomen and opisthotonos were present in all within the first twenty-four hours. The trismus was present early in three cases, but very late in the fourth. There was a tendency for the severity of the disease to fall upon the upper half of the body and upper limbs when the lesion was in the upper extremity, and upon the lower half when in the lower extremities. Moreover, in the case of "G.K.," he was positive that the severe spasms always started from his wounded leg. This tendency for the symptoms to extend transversely in preference to longitudinally suggests that the poison diffuses itself in the spinal cord, and that in it the ferment-like bodies are stored which set free the tetanus toxins. To carry the idea further. Is it possible that, as in hydrophobia, the primary poison tracks along the nerves to the central nervous system?

Effect of Antitoxin.—The treatment adopted in three of the cases was subcutaneous injections of tetanus antitoxins, combined in two with occasional draughts of chloral and bromides. These three cases recovered. In the fourth case, admittedly the most severe, I was unfortunately unable to procure the antitoxins in time. He died within twenty-four hours of my first seeing him. In my first case ("R.C.") I used Tizzoni's antitoxins. In the second I began with Tizzoni's, and completed the case with the British Institute of Preventive Medicine antitoxin, which has the convenience of being fluid. In the third case the British Institute of Preventive Medicine antitoxins were used throughout.

Dosage of Antitoxin.—This is a most important point. Large doses, 30 c.cm. at once, and repeated at least every six hours till some improvement is seen even in a case which promises to be mild, is the only fair way of testing the antitoxins. I began in my first and second cases very cautiously, as the remedy was new to me, but in my second case I observed no improvement until I had injected 50 c.cm. within eight hours, that was 30 c.cm. at 10 A.M. and another 20 c.cm. at 6 P.M. This man nearly died from the severity of the spasms, and I feel sure that if I had begun larger doses earlier he would not have reached such a dangerous condition. In any case which, from the shortness of the incubation period, the large surface infected, and, I believe, the number of the nerves involved, threatened to be a severe one, I should not hesitate, while the patient was under an anæsthetic, to inject 50 c.cm. at once, and repeat the dose in four hours' time. I think tetanus differs from diphtheria in this—while in diphtheria a second dose is frequently not needed, it seems that in tetanus repetition of at least twelve-hourly intervals is advisable. One of my cases needed 10 grams of Tizzoni's antitoxin to complete the cure spread over seven days, and another 13½ grams of Tizzoni's and 180 c.cm. of the B.I.P.M. extending over ten days. The only disagreeable symptom I could ascribe to the antitoxins was an irritable rash, either urticarial or erythematous. Cases of traumatic tetanus treated with antitoxins are frequently reported, in which 10 c.cm. is the dose administered at first, and one constantly reads that the antitoxins did no good. Surely this is hardly a fair test. It would seem rational that the surgeon, instead of abandoning the treatment when 10 c.cm. did not succeed, should proceed quickly to increase the dose until some effect was produced. I do not myself believe that any harmful effect would follow 100 c.cm. injected at one dose distributed over five injections.

In two of my cases which recovered, the infected part was amputated; in the third, the ulcer was scraped and cauterised with fuming nitric acid; in the fatal one, the edges of the wound were excised, together with a metacarpal bone, and the wound cleansed with formalin solution (1 in 80).

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

A CASE SHOWING THE VALUE OF LATE INJECTIONS OF DIPHTHERIA ANTITOXIN.

I WAS called to see a baby aged 7 months on December 27th, 1898, in order that I might treat it for croup. It was a healthy breast-fed girl and its mother and grandmother gave independently a history of its having had "croup" for the past seven days; they were quite sure that the child had had the difficulty of breathing continuously during that time; but as the difficulty lasted for so long and became decidedly more marked on this the eighth day they sent for a doctor.

When I saw it the case was exactly one of those which when brought into a London hospital is tracheotomised as promptly as possible. The respirations were 36, the pulse 154, and the temperature 99.2°. Croupy cough, great sucking in of ribs and triangles of neck, etc.; no cyanosis of lips. The fauces were normal, except for slight congestion of the ridges of tonsils. I was by no means sure that the case was diphtheria, though subsequently plenty of Klebs-Loeffler bacilli were found in some tracheal mucus sent to the Jenner Institute. I waited a short time to try the effect of ipecacuanha and hot applications, but as the dyspnœa increased I advised tracheotomy, not to save life, but to render the mode of death less distressing to the parents and the patient. In pre-serum days diphtherial croup in a child of 7 months was practically always fatal. I thought that the injection of antitoxin on the eighth day of the illness would have little or no beneficial effect. However, having laid these considerations before the parents I performed tracheotomy and injected 1,500 units of antitoxin (Jenner Institute). The usual relief to the dyspnœa followed, and next morning I injected another 1,500 units. The respirations were then 42, pulse 156, and temperature 99.4°. Of course the urgent dyspnœa and then the operation necessitated sudden and complete weaning.

The case improved uninterruptedly; there was no pneumonia and not much bronchitis. The temperature never rose above 99.4°, the pulse above 156, and the respirations above 42. The tube could not be removed till the seventh day after tracheotomy. The convalescence was commonplace and the child is now perfectly well. It is possible that the croup during the first few days was merely catarrhal and that the child was infected with diphtheria only two or three days before I saw it. The great probability is that the case was diphtheria from the beginning. In the past three months there had been two cases of diphtheria in adjacent houses.

I publish the case as one illustrating in a very striking manner the value of diphtheria antitoxin injected even so late as the eighth day of the illness.

Kingston-on-Thames. A. M. DALDY, M.D., F.R.C.S.

A SORE DIAGNOSED AS CANCER OF THE LIP IN EARLY LIFE: RECOVERY WITHOUT OPERATION.

PERMIT me to communicate a recent case of so-called early cancer parallel to those cases quoted by Mr. Roger Williams where clinical and pathological diagnosis seem at variance.

I had this case under observation already for some months when the interesting discussion on the point appeared in the BRITISH MEDICAL JOURNAL. The patient, J. N., between 17 and 18 years of age, consulted me in May, 1898. A diagnosis of cancer of the lip had then been made. He had a diffuse eczematous affection on the lower lip, with a patch of ulceration about the size of a sixpenny piece towards the right side. This ulcerated surface rested on a raised base presenting numerous warty nodules. He stated that the sore had existed for six months, and that he did not smoke. There was no gland infiltration. The eczematous dermatitis was probably due to the irritating discharge from the ulcer or from saliva, bubbles of which always appeared drying at angles of mouth.

I consulted several of my colleagues, who recommended that the case be kept under observation. For some months I treated him with antiparasitic ointments with success, but on one occasion, he having run out of ointment, his lip got worse than ever. I then took him into hospital, and a careful examination of the growth was made by the pathologist, Dr. Moore, who pronounced it malignant. Operation was advised, but I only snipped off a prominent part of ulcer with scissors, purposely leaving most of the growth in the belief that it would heal. My expectations have been justified, as on January 12th the eczema has been cured, the infiltration disappeared, and all that remains of the growth is a fibrous nodule which I consider cicatricial.

I would ask, with Mr. Williams, Are these cases to be considered cancerous?

R. P. CROSBIE, M.A., M.B.,
Extern Surgeon, South Infirmary, Cork.

TREATMENT OF HÆMOPHILIA.

A FAMILY of "bleeders" has been under my care and observation for fifteen years. The father, two sons, and two daughters are affected, the others (one daughter and two sons) are not. The father has periodical attacks of hæmorrhage from the bowels and lungs. He is treated in the following way: He is ordered to bed at once, to keep perfectly quiet and still, not even to talk more than is necessary. No food of any kind to be given for two days; sips of iced or cold water to be taken occasionally. I give no medicine whatever, except a little coloured water to please them. In my experience drugs so prescribed for hæmorrhage have little or no effect upon these particular cases, as I find bleeding must take place to a certain degree in order to relieve the quantity of blood and to lessen cardiac force. Further, if the patient strictly adheres to a plain, non-stimulating diet he will go for years without having an attack of hæmorrhage.

Owing to the subsequent bleeding, tooth extraction in this family was always looked upon as a deadly operation. They gave me their previous experience with other medical men before I came here, and the same occurred to me for a short time. But, fortunately for them, an idea of mine of freezing the cavity from which the tooth was taken with chlorethyl freezing mixture contained in bulbs with beaks bent at any angle to suit the mouth, proved quite a success, and stopped the bleeding. I have since drawn several teeth from the same family without any trouble or fear to the patient or myself. Immediately the tooth is extracted I apply the jet of freezing mixture to the cavity for three minutes. A certain amount of blood that will ooze into the cavity will be frozen into a hard mass, which fits the cavity tightly and uniformly, and which acts as the best and most reliable compress. In my hands it has never failed. I have never heard or read of this treatment being adopted by others; and it is through the express wishes of some of my medical friends, who considered my experience in the treatment of hæmorrhage worth recording, that I write this.

R. T. E. DAVIES, L.R.C.P., M.R.C.S., L.S.A.
New Tredegar.

EXOPHTHALMIC GOÎTRE IN THE RUSSIAN ARMY.—The frequency with which exophthalmic goître occurs in the Russian army has been the subject of many elaborate reports and discussions. J. S. Koljag (*Vratch*, December 26th, 1898) attributes the disease to the constant pressure upon the thyroid gland produced by a too tight collar, which the Russian soldier wears. In support of his view he refers to the fact that the prevalence of exophthalmic goître has greatly increased in the Russian army since the introduction of a uniform provided with a very tight collar, and that the disease is more frequently met with among soldiers who have already served for a certain length of time than among those who have only recently entered the army.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

CHILDREN'S HOSPITAL, NOTTINGHAM.

CASE OF DERMOID CYST OF BROAD LIGAMENT IN A GIRL AGED 11 YEARS.

(Under the care of LEWIS MARSHALL, M.D.)

[Reported by W. MCKAY, M.B., House-Surgeon.]

History.—A. C., aged 11 years, was admitted on October 29th, 1898, owing to the presence of a swelling of the abdomen. During the month of July she had been troubled with cramp-like pains in the abdomen, which occurred at intervals and soon passed away. When not suffering from these pains she was able to run about in apparently good health. Three weeks before admission she had dribbling of urine during the day, and at this time her mother first observed that the abdomen was enlarged.

Condition on Admission.—The child was quite healthy in general appearance, and well nourished, being rather a big girl for her age. Prior to examination of the abdomen, the bladder was emptied by catheter, and 2 ounces of urine withdrawn. A distinct swelling was seen to occupy the lower part of the abdomen, reaching to a couple of fingers' breadth above the umbilicus (which remained natural in appearance), and extending into the lumbar regions. On palpating it was found to be a tumour with well-defined, rounded borders, easily movable, and not affected by the movements of the diaphragm; the fingers could be dipped between it and the pubic symphysis. The swelling was more prominent on the left side, where it was felt to be of the hardness of bone or cartilage, and very close to the abdominal wall. The upper and right side was elastic and fluctuating, while over the whole swelling there was dulness on percussion. The flanks yielded a resonant note. The ovarian corona was well marked. On examination under an anæsthetic the above facts were made out with clearness, and in addition there could be felt a band extending from the tumour down into the left side of the pelvis. This band became tense when the tumour was pushed up towards the epigastrium. On examining by the rectum, the swelling could be felt high up on the left side, and it could readily be moved away from the examining finger by the hand on the abdomen. There was no albumen in the urine; no mammary development and no physical signs of disease elsewhere. The diagnosis of dermoid cyst in the left broad ligament was made.

Operation.—On November 13th chloroform was given, and an incision about 4½ inches long made just to the left of the middle line through the rectus muscle. After cutting through the peritoneum, a vascular mass was encountered, which proved to be the pedicle of the tumour, the latter having apparently became doubled down behind it. This was moved aside, and, as fluid could be palpated in the upper part of the tumour, the trocar was introduced, and about 15 ounces of clear fluid withdrawn. The rest of the cyst was then easily turned out of the abdomen. Fortunately no adhesions were present. The pedicle, which was about 3 inches broad and very vascular, was tied by a series of three ligatures, and the cyst cut away. As there had been no escape of fluid into the abdominal cavity, and very little bleeding, the peritoneum was easily cleaned, and then stitched up by interrupted silk sutures, the remainder of the parietes being united by another set of silkworm-gut sutures.

Description of Cyst.—When removed the cyst was found to have thin walls, and to be composed of two parts. One portion of it had been filled with fluid, while the remainder of the contents, consisting of bone, cartilage, sebaceous material, and some hair, was firmly fixed in the bottom of the cyst. The weight without the fluid was 13 ounces.

Result.—During the first twelve hours after the operation the patient's pulse was strong and regular. The thirst, which was intense, was relieved by water enemata, and nutrient suppositories were given every four hours. Next morning the pulse was small and weak, and the child evidently not so well. A nutrient enema containing brandy was given in place of the suppository. This quickly improved her condition. No catheterisation was required after the operation. Feeding by the mouth was commenced twenty-four hours after operation. After this nothing noteworthy occurred. The first dressing was done on the seventh day, when the wound was virtually healed, and the second dressing on the fourteenth day, when the stitches were removed. On December 11th the patient was out of bed, and is now (December 12th) in excellent health.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

H. RADCLIFFE CROCKER, M.D., Vice-President, in the Chair.

Tuesday, February 7th, 1899.

CONGENITAL HYPERTROPHY OF THE PYLORUS.

DR. G. F. STILL exhibited three examples of this condition. They resembled the many others now recorded in most of their aspects. The first concerned a boy, aged 12½ weeks, in whom vomiting was noticed at the fifth week; the pylorus could be felt as a tumour through the abdominal wall. After death, pyloric hypertrophy was found; the œsophagus was normal. In the second case vomiting was observed at the sixth week, and death took place at the fifteenth. The third infant showed no symptoms until the third week; the pylorus was palpable, and, as in the other cases, there was visible peristalsis of the stomach. Histologically, all three were alike: there was an overgrowth of the circular muscle bundles of the pylorus, without abnormal increase of the fibrous tissue and any inflammatory infiltration. It was important to remember that the pylorus of infants normally presented considerable differences in regard to the thickness of the circular muscular layer, and this, quite apart from states of contraction. One theory held was that the contraction was spasmodic, and arose after birth, and was similar to that arising in the adult as a result of irritants; the chief objection to this view was that the degree attained by the hypertrophy was too great to be accounted for in so short a time as sometimes obtained. A second theory held it to be a primary congenital stenosis; as a matter of fact, measurements showed that the actual orifice was not diminished. A third hypothesis regarded it as a developmental hyperplasia of the pyloric muscle. This was negatived by the fact that the swelling was palpable only some weeks after birth, and by the recovery that ensued in a few such cases. The fourth theory, with which the speaker was in accord, viewed the hypertrophy as due to spasm arising from disturbances in the nervous co-ordination.

Other specimens of the same condition were shown by Dr. **CAUTLEY**, Dr. **MORLEY FLETCHER**, and Dr. **H. D. ROLLESTON**.

Dr. **BATTEN** referred to a case in which feeding by means of a nasal tube effected much improvement; but the diagnosis in this instance awaited verification.

THE BUFFY COAT.

Mr. **S. G. SHATTOCK** submitted a new interpretation of this well-known phenomenon, which he illustrated by microscopic and other preparations. The rouleaux formation as a factor in the production of the buffy coat had come to be largely ignored, the formation of such a coat being commonly ascribed only to retardation in coagulation. The author regarded the formation of rouleaux in normal blood as indicative of the presence of an agglutinating substance, which varied in amount in different animals. An equal dilution of human blood with normal saline solution (as studied in hanging drops) almost completely prevented rouleaux formation—hypothetically by diluting the agglutinating substance. If cat's blood was received into an equal bulk of salt solution, and placed in ice, although clotting might be deferred for over two hours, no well-formed buffy coat resulted; the subsidence was imperfect because the rouleaux were. If, on the contrary, cat's blood was received into an equal bulk of normal horse serum, subsidence of the corpuscles quickly commenced, and a well-formed buffy coat resulted if coagulation was delayed in ice. The action of normal horse serum upon normal human blood (hanging drop) led to a highly-increased rouleaux formation with the production of a widely-meshed picture, and was markedly different from what followed a similar dilution of normal human blood with normal human serum. Upon recent typhoid broth cultures, also, the author had found the clumping action of normal horse serum (in equal bulk) to be highly pronounced; a corresponding mixture with normal human serum led to nothing so marked, and often to no result whatever. Passing from these considerations, he stated the view that the production of the buffy coat in such a disease as pneumonia was chiefly due to an exaggerated rouleaux formation, which was followed by a more rapid subsidence, and clearing of the upper part of the fluid. It had been demonstrated long ago by Wharton Jones that in the blood of acute rheumatism and inflammatory conditions rouleaux formation was more rapid, and the resulting mesh more open than in the normal. But what the author laid stress upon was that by testing the action of pneumonic serum upon normal blood, he had found that a highly remarkable rouleaux formation and clumping resulted, unlike anything elsewise producible. Dr. Washbourn and Dr. Eyre had failed to obtain clumping of the diplococcus pneumoniæ by means of the serum of animals experimentally immunised. The author, however, had obtained the reaction by adding pneumonic blood serum (from the living human subject) in equal bulk to a suspension of the pneumococcus in distilled water, whilst clumping was quite absent in the hanging drop made from the same suspension without the addition of the serum. With an active typhoid culture the pneumonic serum produced no clumping. The author regarded the agglutination of red discs in pneumonia as due to the same "agglutinin" which clumped the diplococci. The buffy coat was in a certain sense a form of Durham's, or, more correctly, of Widal's reaction, since it was obtainable during the stage of infection. These results raised obscure questions as to how the specific action of serums was to be explained, and the speaker thought that they indicated an interaction on the part of the bacilli and the blood—that was, that the bacilli did not behave passively under the action of an increased amount of agglutinin, but that some other as yet imperfectly-known factor underlay the phenomenon. If the mere increase of an agglutinating substance was all there would be no specificity. Such an increase, however, acting upon indifferent or purely passive bodies like the red discs might lead to this increased rouleaux formation and clumping, and it was thus that he viewed the production of the buffy coat in bacterial diseases. Although typhoid serum added to normal human blood—equal bulk, hanging drop—increased rouleaux formation, the result had nothing of the striking character that arose in the case of the blood serum from a pneumonic patient.

Mr. **D'ARCY POWER** remarked that if this view were correct it justified to a certain extent the practice of the older physicians in bleeding so long as a buffy coat appeared.

DILATATION OF THE ŒSOPHAGUS.

Dr. **W. S. LAZARUS-BARLOW** recounted this case, which presented dysphagia and vomiting of so obscure origin that laparotomy was performed, but without leading to further result. After death the greatest diameter was 3½ inches—not very great in comparison with other cases recorded. There was hypertrophy of the muscular coat, indicating obstruction at the cardia. Langley had shown that dilatation of the œsophagus was effected by contraction of the longitudinal fibres through the influence of the vagi; hence the speaker had examined the vagus microscopically by Marchi's method, but without result. The circular fasciculi were hypertrophied, not the longitudinal.

Dr. **H. D. ROLLESTON** exhibited (for Dr. **WARDROP GRIFFITH**) a more marked example of the same condition. Dr. Griffith's view was that in consequence of some irritation of the stomach an atony ensued, and that the œsophagus became unable to overcome the negative pressure of the thorax; this was followed by hypertrophy. The speaker himself did not think that cardiospasm played a part in such cases, but that they arose from an atony of the longitudinal fibres of the œsophagus: this led to difficulty in the opening of the cardiac orifice, and hence to hypertrophy of the transverse fibres.

Dr. **STCLAIR THOMSON** adverted to a case under his observation which he was about to bring before Clinical Society where this dilatation was probably present.

In answer to Dr. STCLAIR THOMSON and Dr. PARKES WEBER, Dr. LAZARUS-BARLOW stated that the brain was not examined.

ALVEOLAR SARCOMA OF THE RECTUM.

Mr. STANLEY BOYD recorded this case, which was that of a woman 35 years of age, who presented an annular tumour of the rectum with abdominal distension arising from obstruction. Lumbar colotomy was performed. On the third day afterwards the abdomen became greatly distended, and on being tapped gas with a fæcal odour was evacuated; this was repeated on several occasions. After death a large cavity lined with lymph and full of gas was found in front of the viscera, its source being a perforation of the cæcum. This growth the author viewed as an alveolar sarcoma.

CARCINOMA OF STOMACH.

Dr. R. HEBB showed this specimen, from a man aged 36, the subject of constant vomiting; there was absence of free hydrochloric acid. After death the œsophagus was found dilated and hypertrophied. The stomach was the seat of typical colloid carcinoma.

Dr. H. D. ROLLESTON exhibited a firm growth surrounding the cardiac orifice of the stomach and narrowing the opening. The œsophagus was somewhat dilated. Microscopically it was a spheroidal-celled carcinoma. There was no reason to think it had started on the termination of the œsophagus, and subsequently spread to the stomach. It was removed from a man aged 62 years, who had had symptoms of vomiting, flatulence, and increasing weakness for only three months. The growth had been rapid, and no metastases were found.

UMBILICAL POLYPUS.

Dr. C. D. GREEN had removed the umbilicus from which the growth had arisen; the abdominal wall on the posterior aspect was normal. The growth had a papillary surface, invested with squamous-celled epithelium, whilst internally it presented fibrous tissue, with spaces lined with columnar epithelium. The author regarded it as arising in a residue of Meckel's diverticulum. In infants such glandular polypi were very well known, but their occurrence in the adult was exceptional.

CARD SPECIMENS.

Dr. GUTHRIE: Meckel's Diverticulum, on which the posterior wall of the ileum became intussuscepted, forming an umbilical tumour.—Dr. LAZARUS-BARLOW: Gastric Carcinoma spreading up the œsophagus.—Mr. R. B. HICKMAN: Carcinoma supervening on gastric ulcer.—Dr. F. VOELCKER: Carcinoma of the Cardiac Orifice of the Stomach.—Dr. PARKES WEBER: Cirrhosis, with Acute Degeneration of the Hepatic Cells.

OBSTETRICAL SOCIETY OF LONDON.

ANNUAL MEETING.

C. J. CULLINGWORTH, M.D., President, in the Chair.

Wednesday, February 1st, 1899.

PRESIDENT'S ADDRESS.

THE reports of the Treasurer, Hon. Librarian, and Chairman of the Board for the Examination of Midwives having been read, received, and adopted, the retiring President, Dr. CULLINGWORTH, delivered his annual address. He said that although the work of the Secretaries of that Society was heavier and more exacting than anyone not intimately acquainted with the official nature of the Society would suppose, there was one duty from which they were exonerated—namely, the preparation of an annual report. It had always been usual in that Society for the President, at the close of each of his years of office, to give an account of the condition of the Society and of the work done during the year. Following this long-established custom, he had to begin by deploring a further slight falling off in the number of Fellows. The total number of Fellows on the roll on January 1st, 1898, was 711, comprising 11 honorary and corresponding Fellows and 700 ordinary Fellows. During the year the Society had lost twelve Fellows by death (including a death that occurred in 1897 and had been accidentally overlooked) and thirty by resignation. Twenty-two new Fellows had been elected. Hence the number on the roll had been reduced by nineteen. The present total (January 1st, 1899) was 692, of which number 10 were honorary and corresponding Fellows and 682 ordinary Fellows. This diminution in numbers ought not to be, and would not be if only each one would bestir himself in the way of beating up recruits. During the past year the Council, acting in conjunction with the Board for the Examination of Midwives, had drawn up a code of rules and regulations to be observed by midwives holding the Society's certificate. These rules had now been printed and circulated, and a copy would be supplied to every Fellow of the Society in the form of an appendix to the forthcoming volume of *Transactions*. He (the President) regarded the preparation and issue of these long-wanted rules as quite the most important event that had happened in the Society during his term of office. In the matter of its examination for midwives the Society continued to suffer from a certain amount of professional opprobrium, which, though entirely undeserved, was probably in some degree responsible for the decrease in their numbers. He wished once more to remind their professional brethren that the Society undertook the work from a sense of public duty, and merely as a temporary expedient after having tried in vain to induce the Government to move in the matter; he assured them that it would be only too glad to relinquish it whenever the State could be prevailed upon to take upon itself functions that properly belonged to it, and that it alone could adequately fulfil. Reviewing the scientific work of the Society during the past year, the President gave a brief abstract of each of the papers read, 15 in number (10 obstetrical and 5 gynæcological), and classified the specimens shown in groups according to the particular subject it was the intention of the exhibitor to illustrate. The names of the deceased Fellows were then announced, each announcement being followed by an obituary notice. The first and longest notice had reference to the late Dr. Charles West, an honorary Fellow and past President of the Society; and the other names mentioned included those of Dr. Karl Liebman, of Trieste; Dr. Leonard Remfry, Brigade-Surgeon Joseph Johnston, Mr. E. Arnold Praeger, of California; Deputy Surgeon-General John R. Miller Lewis, M.D.; Dr. George Roper, Dr. John Wallace, of Liverpool; Dr. W. F. Cleveland, Dr. C. E. Fitzgerald, of Folkestone; Mr. Alfred Kebbell, of Flexton, York; and Professor A. A. Kanthack, of Cambridge. The address concluded with a word of farewell and of thanks to the Fellows, and especially to the President's colleagues in office for the help and support uniformly accorded to him in the conduct of the Society's business, both in the general meetings and in the Council room. "In resigning this chair," said Dr. CULLINGWORTH, "it is a satisfaction to me to know that its next occupant is to be one of whose contributions to scientific gynæcology all British gynæcologists are justly proud, and whose irrepressible but never unkindly humour may be relied upon to relieve the dulness of even your very driest debates. I congratulate you and I congratulate him. The best I can wish him is that his tenure of this high office may be as pleasant and peaceful as mine has been."

ELECTION OF OFFICERS.

The following officers and members of Council were appointed for the year 1899:—*President:* Alban Doran, F.R.C.S. *Vice-Presidents:* John W. Byers, M.A., M.D. (Belfast); William Radford Dakin, M.D.; William Duncan, M.D.; Jamieson Boyd Hurry, M.A., M.D. (Reading). *Treasurer:* James Watt Black, M.D. *Chairman of the Board for the Examination of Midwives:* Percy Boulton, M.D. *Honorary Secretaries:* John Phillips, M.A., M.D.; Herbert R. Spencer, M.D. *Honorary Librarian:* Amand Routh, M.D. *Other Members of Council:* Augustus W. Addinsell, M.B., C.M.; John Ford Anderson, M.D.; A. H. Freeland Barbour, M.D. (Edinburgh); George Francis Blacker, M.D.; Robert Boxall, M.D.; Thomas Watts Eden, M.D.; Angus Fraser, M.D.; Arthur Edward Giles, M.D.; Thomas Crawford Hayes, M.D.; George Ernest Herman, M.B.; John Dysart McCaw, M.D.; Arthur Nicholson, M.B. (Brighton); Richard Pinhorn (Dover); William Loudon Reid, M.D. (Glasgow); Charles Hubert Roberts, M.D.; George H. Drummond Robinson, M.D.; William Japp Sinclair, M.D. (Manchester); Arthur Francis Stabb, M.B., B.C.

ELECTION OF HONORARY FELLOWS.

On the nomination of the Council, the following distinguished persons were unanimously elected to the Honorary Fellowship of the Society, namely, Professor Olshausen (Berlin), Drs. Budin and Pinard (Paris), Dr. A. E. Martin (Berlin), Dr. H. Oldham (Bournemouth), an original Fellow and past President of the Society, and Mr. Jonathan Hutchinson (London).

Votes of Thanks.

Certain proposed alterations in the laws were then confirmed, and the meeting concluded with votes of thanks to the retiring President, Vice-Presidents, and members of Council.

Specimen.

A specimen of Tubo-ovarian Abscess was shown by Dr. Cullingworth at the commencement of the meeting.

HARVEIAN SOCIETY OF LONDON.

Clinical Evening.

Henry Juler, F.R.C.S., President, in the Chair.

Thursday, February 2nd, 1899.

Cystic Hygroma of Neck.

Mr. Raymond Johnson showed a girl, aged 8 years, who was the subject of a large congenital cystic hygroma of the neck. She had been under observation since the age of 16 months, and the tumour had progressively but slowly diminished in size. On three occasions the tumour had been the seat of acute inflammation, during which the swelling became enormously increased in size and there was rather severe constitutional disturbance. On each occasion the inflammation had subsided spontaneously, and was followed by a more rapid shrinking of the tumour. One of the largest cysts had been treated by drainage; but, in view of the very marked tendency of the tumour to shrink and its extent and diffuse character, it was not proposed to make any attempt to remove it by operation.

Mr. D'Arcy Power said the swelling showed signs of shrinkage in more than one direction. Such growths, when they occurred in the neck, seemed always to involve the lobule of the ear, as the early photographs showed had been the case in this child. At the present time, however, the lobule of the ear was separated from the growth by a considerable distance. Mr. Power alluded to 4 other cases of a similar kind in the same situation upon which he had lately operated. He had been able to remove the bulk of the growth in 3 of the cases, but in the fourth it was so extensive and involved such important structures that much had to be left behind. Yet in this case the remainder of the growth absolutely vanished in the course of a few months, and after attacks of lymphangitis like those described by Mr. Johnson. It was remarkable, however, that although the child had been subject to similar attacks of lymphangitis all his life, the tumour had not decreased in size, and it was only after the incomplete operation that a fresh attack was associated with its absolute disappearance. Mr. Power stated, in reply to a question by Dr. Joll, that these tumours were known to the older pathologists as hygromata or barren cysts; hygroma, from the Greek, ὑγρὸς, because they were supple and barren, because, having only an endothelial lining, they did not proliferate.

In reply to Mr. E. L. Hunt, Mr. Johnson said that the tumour in his case could be distinguished from a deeply seated dermoid chiefly by its diffuse character and the fact that it was multilocular.

Congenital Deformities.

Mr. Jackson Clarke showed a girl aged 3 years who had several congenital deformities. When he first saw the patient at the age of 6 months the thumbs were firmly adducted into the palms, and the forearms were abnormally curved with a forward concavity. There was also marked double equinovarus. About the middle of the forearms and legs there were depressed scar-like marks, one over the middle of each of the bones. In the legs a small nodule of bone could be felt beneath each of these marks. The mother said that the birth was "very dry," and Mr. Clarke thought that the abnormalities were explained by a deficiency of liquor amnii allowing of abnormal intrauterine pressure upon the fœtus. The deformities of the hands and feet had been completely cured by gradual methods. Mr. Clarke wished to express his preference for such methods over procedures such as Phelps's operation, which in his opinion was undesirable as applied to clubfoot in children.

Mr. Clarke, in reply to Mr. D'Arcy Power, said he had not been able to obtain any evidence of syphilis in his case; and in answer to a question by Mr. Johnson stated that the feet had been treated with the splint which he usually employed in such cases—a strip of tinned iron applied to the outer side of the leg and foot, and gradually bent so as to overcome the deformity.

A Case of Mumps with Marked Enlargement of the Spleen.

Dr. Ewart exhibited a healthy boy, aged 13, who was admitted into hospital on the third day of the attack, with the characteristic swelling of the left parotid. The affection remained limited to the left side, and ran a mild course without pyrexia. The only complication was an enlargement of the spleen, which persisted for several days, and gradually subsided as the parotid gland returned to its normal size. Tracings of the splenic dulness taken during the period of enlargement and after recovery were shown. Dr. Ewart had not found in textbooks any reference to this complication, which might perhaps sometimes occur unnoticed. In this case it gave rise to no symptoms. The dulness measured 6½ inches in the horizontal and 5 inches in the vertical direction. The enlargement took place upwards, the spleen projecting half an inch only below the costal arch. The spleen when percussed at the meeting was of normal size, and yielded the "boxy" percussion note which, as recently pointed out, sometimes replaces the splenic dulness. A specimen of the blood had been stained for micro-organisms by Mr. Hunt, with negative results.

Dr. C. O. Fowler remarked upon the frequency with which the poison of mumps affected distant parts of the body.

Dr. Maguire remarked that this was a case in which his method of palpation was particularly valuable for defining the outline of the spleen, and avoided the errors which surrounded the employment of percussion in such cases. At the invitation of the President Dr. Maguire gave a demonstration on the patient of the application of his method to the definition of the heart, liver, spleen, and kidneys, and explained that it depended solely on the estimation of the sense of resistance. The power to do this could be increased by practice, but was possessed by everyone.

Dr. Ewart replied.

Facial and Palatal Paralysis.

Dr. William Hill showed a young woman who had been the subject of chronic suppuration in the middle ear, and who for two years had suffered from facial paralysis associated with paralysis of the corresponding half of the soft palate. No evidence of diphtheria was obtainable. The interest of the case consisted chiefly in its bearing upon the question as to whether or not the muscles of the palate received any part of their nervous supply from the facial.

Dr. Herbert Tilley said that if the case was a genuine one (of which some present seemed doubtful) of combined facial and unilateral palatal paralysis it would seem to point to the fact that the palate might have a double nerve supply, the facial through the Vidian and the spinal accessory by the pharyngeal branches of the vagus. That the latter innervation was the most constant (and probably the sole one) had been experimentally proved beyond any doubt by Horsley and Beevor in monkeys, whilst clinical evidence was almost altogether in favour of this view. He referred to 3 cases of the kind which had recently come under his notice.

Dr. Guthrie would not have felt quite convinced as to the presence of paralysis of the palate unless, as Dr. Hill stated, the reaction of degeneration were present.

Dr. Hill replied.

Diphtherial Membranous Tracheitis with Temporary Obstruction of the Right Bronchus in the Adult.

Dr. Ewart and Mr. E. L. Hunt exhibited a series of tubular casts of the trachea, expectorated on the third, fourth, and fifth day of the attack, by a maidservant, aged 32, who was now recovering, after a pyrexial period of nineteen days, from a severe pulmonary catarrh due, as shown by repeated cultivation, to diphtheria. She had been injected on the third and on the fifth day with 4,000 units of antitoxin. On the third day the laryngoscope had shown the presence of membrane immediately above the glottis, but the vocal cords were free. There was considerable dyspnœa on exertion, but no apparent distress of breathing in recumbency, though the rate of pulse and respiration remained rapid with some cyanosis of the face and lips throughout the attack. For several days there was loss of respiratory sounds and great diminution of respiratory movement over the right side of the chest, which were attributed to impaction of membrane in the right bronchus, as there was no evidence of any inhalation of food having occurred. With the return of the respiratory function abundant *râles* gradually developed. The patient was completely aphonic for fifteen days, but in contrast with the familiar symptoms of membranous croup in children the cough was not "croupy" and there was no stridor or spasm of the glottis. An alarming attack of heart failure had occurred on the tenth day, but neither albuminuria nor paralytic symptoms of any kind had hitherto made their appearance.

In answer to a question by the **President**, Mr. E. L. **Hunt** remarked that the antitoxin with which the patient was injected was obtained from the Laboratory of the Royal Colleges. Two injections were given of 4,000 units each into the subcutaneous tissue of the abdomen. The injections were given on the third and fifth days of the disease, and were followed by rashes, erythematous and transient, on the arms and legs on the eleventh and fourteenth days of the disease, and at about the same time the patient suffered from swelling and redness of the hands and pain on movement in the wrist and finger joints; there were also pain and tenderness in the muscles of the legs and thighs.

After remarks by Dr. **William Hill**, Dr. **Ewart** replied.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Sir **John Batty Tuke**, M.D., F.R.S., President, in the Chair.

Wednesday, February 1st, 1899.

Cases.

Dr. **Robert Fleming** showed a mother and four children apparently suffering from Addison's Disease.—Dr. W. **Russell** and Mr. J. **Cotterill** showed a case after Operation for Mastoid Abscess and Empyema.

Specimens.

Dr. **Shennan** showed: (1) Organism in Cancrum Oris; (2) Vessels from a case of Tuberculous Meningitis; (3) Early Tubercle of the Urethra; (4) Organism of Diphtheria (long form); (5) An Organism in Diffuse Spreading Gangrene resembling that of Diphtheria.—Dr. R. **Fleming** showed: (1) Two Mammillated Stomachs; (2) Heart showing Aneurysm of one of the Sinuses of Valsalva.—Dr. W. **Stewart** and Dr. **John Thomson** showed Congenital Malformation of the Œsophagus.—Mr. **Cotterill** showed a Large Intestine showing Line of Suture after Enterectomy done 11 years ago.

The Treatment of Ozæna.

Dr. **McBride** read a paper on the treatment of ozæna, with special reference to cupric electrolysis. A brief reference was made to recent views as to the pathology of ozæna. The various methods of treatment which had been proposed in addition to syringing and spraying with antiseptics, etc., were briefly discussed under the following headings: (1) Destruction of secreting area by scraping instruments, an old method adversely criticised by Voltolini in 1888; (2) the application of stimulants and irritants—tampons, spirits of mustard, nitrate of silver, electric cautery, vibratory massage, painting with Mandl's solution; (3) obturators; (4) other remedies—for example, glycerine, ichthyol. The two most modern suggestions were discussed—namely (1) diphtheria antitoxin, (2) cupric electrolysis, the former briefly, the second more in detail. After referring to the history and literature bearing on cupric electrolysis, the results in eight not specially selected cases were given. All were typical, and the results obtained were as follows: (1) Male, aged 26, five sittings, beginning in October, 1897; examined December 13th, 1898. Result: Had required no syringing since treatment; no fœtor. (2) Female, aged 17. Seen in 1897. Four sittings in eighteen months. Never syringed since treatment began. Examined December 13th, 1898; no fœtor. (3) Female, aged 20. In November, 1897, and twice afterwards, electrolysis employed; crusts continued to form in the naso-pharynx, but fœtor seemed to have disappeared in January, 1899, when patient was prevented syringing between 24th and 31st, on which date she was last examined. (4) Female, aged 24. Cupric electrolysis thrice in the summer of 1897; temporary improvement; relapse after a few weeks; when examined December 12th, 1898, much as before treatment. (5) Female, aged 30. Cupric electrolysis twice in summer of 1897; last seen December 10th, 1898; had only required syringing once in last four months. (6) Female, aged 22. Cupric electrolysis six times from June, 1897. Writing on December 14th, 1898, stated that all odour had disappeared, and that she never required to syringe. (7) Male, aged 19. Electrolysis in May, 1898; two sittings; relapse in September. Examined in December: no improvement. (8) Female, aged 20. Electrolysis in October, 1898. Examined in January, 1899; no odour, but slight crusting. The method of employing cupric electrolysis was then briefly explained, and the general conclusion arrived at was that this treatment was probably the most successful yet suggested for ozæna. Two cases were also shown.

The paper was discussed by Dr. **Logan Turner**, Dr. **Hunter**, Mr. **Cotterill**, and others; and Dr. **McBride** replied.

Movable Kidney.

Mr. **Wallace** read a paper on this subject. After shortly reviewing the history of the subject, he said that in regard to the etiology, the explanations given seemed both inadequate and erroneous, and took exception to the view that it occurred with much greater frequency in the multiparæ of the poorer classes. His experience coincided with that of Greig Smith that a considerable proportion occurred in the upper class, and that most of those patients who came under the observation of the surgeon were to be found in this class. Of 14 cases under his own treatment, 13 were females, and of these 7 were unmarried and only 1 of the others had borne several children. In regard to emaciation, he believed it was as a rule a result, not a cause, of mobility. After alluding in detail to recent anatomical investigations bearing on the condition, more particularly those of Drs. Cunningham and Kendal Franks, he said that they still left it unexplained (1) why women suffered more frequently than men; and (2) why the right kidney was more frequently affected than the left. He did not believe the liver had much to do with this latter point; probably variation in anatomical relationship and fixation would eventually be found to play an important part in initiating the condition. A point indicative of this was the fact that movable kidney was now known to be more frequently present in children than had been hitherto supposed. Detection of the condition was as a rule easy, but the degree of mobility was not always proportionate to the symptoms. Its recognition was generally easy from the shape of the swelling, the direction and character of the movement. From the clinical standpoint the symptoms could be grouped under four heads: (*a*) Simple mobility, which gave rise to no symptoms; (*b*) Pain, which was in no way characteristic of a renal affection; (*c*) Renal pain distinctive of renal conditions; (*d*) Gastro-intestinal symptoms which might be accompanied by or end in neurasthenia. As a rule the kidney was quite healthy. Thus in those excised and which had been reported by Newman 17 were healthy. Intermittent hydronephrosis might be caused by movable kidney, and most probably the valvular condition sometimes found in the ureter or pelvis of kidney, was a result of this, not a cause, the initial cause of the hydronephrosis being a kink upon the ureter. This aspect of the subject had been recently referred to by Mr. Henry Morris in his *Progress of Renal Surgery*, and was of much importance, as ureterotomy could be performed and the operation of nephrectomy obviated. After a reference to Mr. Morris's cases of nephropexy, Mr. Wallace said that in regard to treatment three classes of cases had to be considered: (1) Those in which the condition was discovered by accident, caused no symptoms, required no treatment, and in which the patient should not be informed that movable kidney existed. (2) Where palliative measures succeeded. (3) Those in which nephropexy was necessitated. This aspect of movable kidney he exemplified from those cases which had been under his own observation, and gave examples in which patients with pain, not renal in type, and others with "gastric crises," had been so benefited by the use of a pad that from a condition of misery and chronic invalidism they became strong and well. He advised the use of an air pad stitched to the corset, and applied when the kidney was in position. He believed this latter point was often neglected, and accounted for want of success in some cases. He had operated upon 8 cases by nephropexy, and had invariably used the method of suture through the kidney substance, and fixation to the posterior wall of abdomen. He did not strip the capsule, but carefully separated the perirenal fat, removing it in part and drawing it well up to the wound. He found this method quite satisfactory, and was able to corroborate the view that the fixation was permanent, and almost invariably gave complete relief to symptoms. The malposition of the kidney caused no discomfort, a result which from the analogy of congenitally misplaced but fixed kidneys was to be expected.

The paper was discussed by Drs. R. A. LUNDIE, CHURCH, W. RUSSELL, and by Messrs. CATHCART, COTTERILL, and STILES; and Mr. WALLACE replied.

GLASGOW SOUTHERN MEDICAL SOCIETY.

R. H. PARRY, L.R.C.S.Edin., President, in the Chair.

Thursday, February 2nd, 1899.

THE PREVENTION OF TUBERCULOSIS.

MR. TROTTER, M.R.C.V.S., in discussing this question, said the part played by heredity was infinitesimal in regard to tuberculosis, the disease was practically absent in young calves (0.06 per cent.) as compared with adult cattle (7.6 per cent.). Congenital tuberculosis was very uncommon, but certain peculiarities might be transmitted. In Leipzig, of 267 cows affected with tuberculosis, in 152, or 57.9 per cent., the uterus was affected. This condition was easily detected by microscopical examination of the discharge, and by a consideration of the clinical history. Abortion was the rule, and the animals born were not viable. Fifty per cent. of the cattle in North Russia were affected with the disease; in South Russia it was rarely met with. In Denmark it was very common, and imported cattle suffered more than natives, but natives became very susceptible if brought into contact with infection. In North Russia and Denmark the cattle were housed, in South Russia they were much more in the open air. The mammary gland was affected in 2 per cent. of cows, and this was rarely a primary affection. Sixteen per cent. of all cases of mastitis were of a tuberculous nature. Every diseased udder should be removed from the dairy, but even that was not enough. The dairy regulations in force in this country were a delusion and a snare; in many districts there were no regulations. Bovine tuberculosis might be cured in the early stages by good hygiene. Domestic animals should be well cared for and properly housed. The disease was present in over-built areas in large towns, old houses tended to spread it. Disinfection was always difficult. Even carefully carried out by experts it was usually an absolute failure. How much more dangerous was it in this country, where it was systematically neglected. Cleanliness was most important.

DR. EBENEZER DUNCAN said 720 millions of tuberculous bacilli were sent into circulation by a single tuberculous individual daily, in an advanced stage of the disease, by his sputum. The dairies should be compelled to "pasteurise" milk by a proper method; the taste of the milk was not impaired. Every day in all parts of the city millions of bacilli were disseminated. The bacillus was of slow growth, and required time to establish itself; but when, as in the stonemason, the mucous membrane was denuded, it got a footing despite his being always in the open air. Infected houses should be notified, every case occurring in a public institution, every case of death should be reported. The sanitary authorities had at present no power to enforce thorough disinfection. This power should be obtained. Bacteriological institutes should be established by corporations where sputa would be examined free; this would lead to a form of notification. Where a case was in a very bad or hopeless state in an insanitary dwelling, it should be removed into a hospital erected by the sanitary authorities. With perfect hygiene phthisis like typhus fever, might disappear.

The discussion was adjourned.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF PATHOLOGY.

J. M. PURSER, M.D., President, in the Chair.

Friday, January 13th, 1899.

SPECIMENS.

DR. KNOTT exhibited a series of 19 Femora presenting various anatomical, anthropological, and pathological peculiarities of interest, and another series of 19 Tibiæ.—MR. H. CROLY showed: (1) Tumour of the Left Ovary; (2) Specific Fungus of the Testis; (3) Carious Os Calcis; (4) Scirrhus of Breast of eighteen years' standing.—DR. COLEMAN showed: (1) Glioma of Cerebral Hemisphere; (2) Tuberculous Tumour of Cerebellum; (3) Abscess of Cerebellum.

AGGLUTINABILITY OF DIFFERENT RACES OF THE TYPHOID BACILLUS.

DR. MCWEENEY described how he had been obliged to suspend temporarily the serum-diagnostic work at the Mater Hospital, owing to peculiar behaviour of a strain of typhoid bacilli, called, for brevity's sake, T. A., which he had isolated by the usual methods from the bile of a fatal case of typhoid. Death had occurred in this case from cardiac failure nine days after defervescence, and at the necropsy the ulcers in the small intestine were healed, but there were many open follicular ulcers in the colon. The bacillus T. A. was present in the bile in great numbers and pure culture. It presented the cultural characters of genuine Eberth's bacillus. Distinctive peculiarities were the extreme slowness of its growth on gelatine plates, the fewness, delicacy, and shortness of the flagella, and the fact that although the mobility was extremely active during the first twelve hours of culture, it had died down by the end of twenty-four hours to a waggling movement hardly distinguishable from that of B. coli. Tested against the serum of several typical cases of typhoid side by side with a typical race obtained from Professor Lorrain Smith, of Belfast, it proved markedly resistant against agglutinating influences. The dilutions generally practised were 10 per cent., 1 per cent., 0.2 per cent., and 0.1 per cent. Serums of cases in the third week, which clumped the Belfast bacillus ("L. S.") instantaneously in 10 per cent. dilution, and left the field quite clear of isolated organisms, took an appreciable time to clump T. A., and after the lapse of half an hour the field was not quite free from scattered bacilli. In the 1 in 100 dilution, where L. S. was well clumped at the end of the observation period (two to five hours), T. A. was so imperfectly agglutinated that diagnostic inferences could not be drawn; in fact, with the higher dilutions, these two races of undoubted typhoid bacilli gave directly opposite serum-diagnostic results. The speaker went on to discuss the significance of the expression "agglutinable" in the light of the recent work published by Kraus and Nicolle, proving that the phenomenon was the result of the interaction of two substances, one contained in the serum, the other in (and subsequently outside of) the bacterial bodies, which played a purely passive *rôle*; that the serum need not necessarily be immune, nor was the phenomenon essentially specific; and finally, the interesting work of Bordet was described as showing how, quite apart from bacterial action, the serum of the rabbit agglutinated guinea-pig's serum containing red corpuscles, causing these latter to form clumps; and how, if the serum of the guinea-pig, which exercised but a slight agglutinative action on the corpuscles in rabbit serum, were taken from a guinea-pig which had previously had rabbit's blood injected a few times, the agglutinative action of the guinea-pig serum was greatly increased. The bearing of these researches on serum-diagnostic work was pointed out. The paper was illustrated with slides showing the relative size, length, and number of the flagella of T. A. and L. S.

MR. O'SULLIVAN said that in a case of Dr. Finny's, in Dun's Hospital, of typhoid fever, accompanied by effusion into the knee-joint, he had isolated bacilli from the effusion which gave the culture reactions, as then practised, of typhoid bacilli, and showed stronger agglutination with the serum of typhoid patients than the stock bacilli which he had at the time. He thought then that this might be due to the fact that the bacilli were more virulent, but it appeared that virulence and the faculty of being agglutinated had no relation to one another.

Dr. E. J. **McWeeney**, replying, said the phenomenon which occurred was one of agglutination and not precipitation. The matter stood exactly thus: one had a limpid fluid consisting of a sort of extract of an old virulent cultivation of, say, typhoid bacillus. Suppose this divided into two parts. To both of these parts was added some talc, and on stirring it up a turbid mixture was produced full of the minute particles of talc. If then to one of these tubes a drop of highly immune serum were added, and to the other a drop of non-immune serum, or of serum immunised against some other bacillus, there would be the following differences in appearances:—In that to which the homologous serum had been added there was not merely a precipitation of the talc, but an absolute agglutination of it; the minute particles would run together, forming masses of considerable size, which sank to the bottom. On the other hand, no change whatever occurred in the other tube. It was difficult to account for this upon any purely physical hypothesis as apart from a sort of chemico-vital action of the same general nature as coagulation by ferments.

PERITONEAL TUMOUR.

Dr. **Conolly Norman** described and exhibited a case of peritoneal tumour. The growth occurred about the junction of the jejunum and ileum, and appeared to spring from the peritoneum covering the anterior wall of the intestine; it was of oval shape, about the size of a goose's egg, and in colour and consistence, both externally and on section, strongly resembling a uterine fibroid. The growth had penetrated the intestine; an irregular ulcerated surface, not fungating, and about the size of a sixpence, showing in the gut. The patient died from repeated hæmorrhages from this point. No other new growths were discovered, and the uterus and ovaries appeared perfectly normal. The tumour was described as consisting of an aggregation of ovoid and spindle-shaped cells, the former having large granular bluntly ovate nuclei, the latter passing into fibrous tissue in parts. The vessels were very numerous, so that here and there the structure resembled that of an angioma. The tumour could not be made out to be continuous with muscular wall of the intestine, which it seemed to have destroyed by mere pressure, and, in the opinion of the exhibitor, was to be regarded as a sarcoma, arising probably from the peritoneal blood vessels.

Dr. **McWeeney** asked Dr. Norman if he had considered the possibility of the tumour being myomatous, and that the long spindle cells might really be of the nature of unstriped muscular fibre. Such tumours occurred in connection with the peritoneum, and in this case it occurred in connection with external coats of the bowel. The naked-eye characters appeared to point to a benign rather than a malignant tumour.

After remarks by Drs. **R. Travers Smith**, **A. R. Parsons**, and the **President**,

Dr. **Conolly Norman**, in reply to the **President**, said that the tumour was not adherent to the muscular coat of the intestine. In the central portion of the tumour there was a large number of bluntly-pointed ovoid cells, such as one sees in an ordinary quick-growing sarcoma. This was not shown in the sections under the microscope, but he had other sections which showed it.

PATHOLOGICAL SOCIETY OF MANCHESTER.

R. B. Wild, M.D., President, in the Chair.

Wednesday, January 18th, 1899.

PATHOLOGY OF CUBITUS VARUS FOLLOWING FRACTURE OF THE LOWER END OF THE HUMERUS.

Mr. J. E. **Platt** discussed the pathology of cubitus varus, illustrating his remarks by a number of skiagraphs. After briefly referring to the various kinds of fracture which might occur in the lower end of the humerus, he said that cubitus varus had been met with as a result of the following injuries: (1) Oblique fracture of the external condyle extending into the elbow-joint, with permanent displacement downwards of the loose piece of bone; (2) oblique fracture of the internal condyle, with displacement upwards of the loose fragment; (3) transverse supracondylar fracture, with tilting of the fragment so that the trochlea lay at a higher level than the capitellum; (4) separation of the epiphysis. It was stated that when cubitus varus followed separation of the epiphysis its pathology was more complicated, and that the deformity might be produced in at least three different ways: (*a*) From the line of fracture in these cases being usually partly epiphysial and partly diaphysial, with frequently some inward displacement of the fragment. Imperfect reduction under such circumstances would be very liable to lead to cubitus varus. (*b*) From rotation of the epiphysis around the convex end of the diaphysis. (*c*) From irregular growth at the epiphysial line after the union of the fracture. It had been found as a result of the examination of a number of cases of epiphysial separation some years after the injury, that in two patients cubitus varus had gradually supervened, although the fracture had united without deformity in the first instance. This was attributed to the epiphysial cartilage having been permanently damaged by the accident.

CHARCOT'S JOINT DISEASE.

Mr. **Southam** showed two specimens of Charcot's disease of the ankle-joint, removed by amputation below the knee from male patients, aged respectively 44 and 49 years, the subjects of locomotor ataxy. In both cases extensive erosion of the articular surfaces had taken place, in consequence of which the foot had become dislocated upwards and outwards, and in one instance the internal malleolus had projected through the skin.

TUBERCULOSIS OF LIVER.

Dr. F. C. **Moore** described the morbid features of two uncommon forms of hepatic tuberculosis, and exhibited the specimens. The first, an example of the so-called "large solitary tubercle," was found in a male, aged 43, in association with a similar lesion in the spleen, tuberculosis of the aortic lymph glands, and a typical carcinomatous stenosis of the pylorus; other organs healthy. The second, an example of tuberculous hepatitis, was met with in a rabbit which had been inoculated twelve months previously with a few highly virulent tubercle bacilli. The interstitial changes consisted in an increased formation of fibro-cellular tissue, monolobular in distribution, and which showed no tendency to tubercle formation. Psorosperms were conspicuously absent. The lungs were the seat of extensive tuberculosis.

ULCERATION OF THE CÆCUM.

Dr. **Marsden** showed a preparation from a case of ulceration of the cæcum.

CARD SPECIMENS.

Dr. **Arthur Helme**: Gynæcological Specimens.—Mr. **Hitchon**: Chronic Gastric Ulcer.—Dr. **Lea**: Series of Uteri removed by Vaginal Extirpation.—Dr. **Moore**: Psammoma.—Mr. **Southam**: Tuberculous Mesenteric Gland sloughing into intestine.—Dr. **Walls**: Fœtus Papyraceus.

MANCHESTER MEDICAL SOCIETY.

Wednesday, February 1st, 1899.

Professor J. W. Sinclair, M.D., President, in the Chair.

PRESIDENT'S ADDRESS.

At the request of the Committee, the **President** delivered an inaugural address entitled, "The Last Resort in Puerperal Fever."

THE OPERATIVE TREATMENT OF TYPHOID PERFORATION OF THE INTESTINE.

Mr. J. E. **Platt** presented a communication upon this subject and described three cases in which he had operated. 1. Male, aged 37, perforation at end of second week of a mild attack of typhoid fever, operation after 22 hours, perforation sutured, irrigation of peritoneal cavity, drainage. The patient subsequently had a relapse of the fever, which lasted three weeks, but eventually he made a good recovery. He was shown at the meeting. 2. Male, aged 17, perforation in fourth week of a severe attack, suture 18 hours later, death after 8½ hours. 3. Male, aged 22, perforation in third week of a severe attack, suture after 19 hours, death at end of second day. Reference was made to the characters of the peritonitis which followed perforation, and to the objections which had been raised to operative interference. In performing the operation it was recommended that the incision be made on the right side, that the perforation be closed by Lembert sutures without paring of its edges, that the abdomen be irrigated with saline solution, and that drainage be provided. The results of the operation were considered, and it was shown that the recovery-rate in recorded cases had been about 20 per cent. The best results had been obtained when the operation had been performed from 12 to 24 hours after the onset of perforation. After the lapse of 24 hours the chances of success were very small indeed. When perforation occurred during a mild attack of fever, or when it came on at a late stage of the disease, there was more hope of a successful issue.

Hunterian Society.—At a meeting on January 25th, Dr. Cotman (the President) in the chair, Dr. Kelson read a paper on Diseases of the Nose in Relation to General Diseases. The author, after reference to recent work by MacDonald, StClair Thomson, and Hewlett, on the physiology and bacteriology of the nose, discussed nasal diphtheria and fibrinous rhinitis, specially reviewing the records of Lambert Lack and Hunt, and pointing out the indefinite state of our knowledge of this subject at present. Scarlatinal rhinitis was shown to be an exceedingly fruitful source of contagion long after recovery in other respects. Tuberculous disease and syphilis were described from a nasal aspect, and the obstructive disease of the nose, with some investigations of the author's as to the frequency of asthma in those suffering from nasal polypi, with the results of treatment. Neuroses of the nose were spoken of, and illustrative cases described, and the work of Hack, Woakes, and others discussed. The paper concluded with a statement as to the alleged connection between nasal and sexual functions and diseases, and mention of the so-called "genital area" in the nose. Dr. Shadwell alluded to some cases of fibrinous rhinitis, and gave clinical details. He also related a case of asthma cured by removal of a nasal polypus. The President mentioned a case of severe neuralgia following the removal of nasal polypi; the patient had never been troubled with neuralgia before. Dr. Thorpe referred to gout as a cause of nasal catarrh in elderly subjects. Dr. Kelson replied.

British Balneological and Climatological Society.—At a meeting on January 26th, Dr. Fortescue Fox, President, in the chair, Dr. Evelyn Crook read a paper on The Climate of Margate in relation to Disease. After briefly touching on the geographical and geological aspect of Margate, pointing out how well the subsoil was adapted for natural drainage, the author showed how, as a natural sequence, the atmosphere of Margate was at all times free from raw, penetrating land fogs so prevalent in many places. The various diseases for which a residence at Margate was particularly suitable were considered, stress being laid on the great benefit derived by patients suffering from tuberculous disease and phthisis in its early stages from a residence at Margate.—Dr. Brodie Cruickshank read Notes on Nairn, chiefly Climatic. Nairn, he said, was suitable for phthisical and tuberculous patients, and had a great claim for consideration as a winter resort as well as a summer resort. Very little snow fell, and mist and fog were almost unknown. The special baths were beneficial for chronic gout and rheumatic affections. After remarks by Dr. Solly (Harrogate), Dr. Bezly Thorne, and Dr. Leon (Sidmouth), the President said that what had been advanced on behalf of Margate applied also to Nairn. Allowing for the difference of latitude, there was in fact a remarkable similarity between these two important marine stations in geographical position and aspect, in lowness of rainfall (both claimed to be the driest spots in the United Kingdom) in the remarkable purity of the air, and in dryness of subsoil. Dr. Septimus Sunderland had found, in common with many medical friends, that the cases of enlarged cervical glands which were sent to Margate for the special benefit of the climate, and with the hope of avoiding operation, nearly always fell into the hands of the Margate operating surgeons, who immediately removed the glands. He therefore concluded it was better to advise that most of such cases should undergo operation at their own homes, and then be sent to Margate for convalescence and for the restorative and invigorating effect of the climate which might prevent a recurrence of the trouble. After remarks from Professor MacHardy (London), Dr. Evelyn Crook, in reply, said he believed that enlarged lymphatic glands were less liable to suppurate at Margate than in inland localities. Cases of anæmia rapidly recovered with simple iron and anticonstipating treatment if sent out of doors as much as possible. He advised patients of a gouty tendency to boil the Margate water, by which process the hardness was reduced from 22 degrees to about 6 degrees. He had not injected guaiacol hypodermically, but would take an early opportunity of doing so.—Dr. William Bain (Harrogate) read a paper on the Action of Certain Mineral Waters on the Biurate of Soda. Dr. A. P. Luff said that the experiments conducted by Dr. Bain were interesting, but that it was difficult to draw any practical conclusions from them. In his opinion it would have been better to have treated the solubility of sodium biurate in blood serum or artificial blood serum, mixed with such proportions of the constituents of the waters as might reasonably be expected to be introduced into the circulation when the waters were taken.

Neurological Society of London.—The annual meeting of this Society was held on February 2nd, when the newly-elected President, Dr. W. H. Gaskell, F.R.S., delivered an address on The Meaning of the Cranial Nerves, in which he gave an account of his researches into the morphology of the cranial nerves, especially in the scorpions and the ammonocoetes. There was a very large attendance of members, and at the close a very hearty vote of thanks to Dr. Gaskell was proposed by Professor Schäfer, seconded by Dr. Ferrier, and carried by acclamation. The address will appear in a future number of *Brain*. During the evening the ballot for the officers for 1899 was taken, and the following were elected: *President:* W. H. Gaskell, M.D., F.R.S. *Vice-Presidents:* Julius Dreschfeld, M.D., F.R.C.P.; Augustus Waller, M.D., F.R.S. *Council:* C. A. Ballance, M.S., F.R.C.S.; R. Marcus Gunn, M.B., F.R.C.S.; Victor Horsley, M.B., F.R.C.S., F.R.S.; J. N. Langley, Sc.D., F.R.S.; C. Mercier, M.B., M.R.C.P.; F. W. Mott, M.D., F.R.C.P., F.R.S.; G. Vivian Poore, M.D., F.R.C.P.; Sir Felix Semon, M.D., F.R.C.P.; H. H. Tooth, M.D., F.R.C.P.; W. Hale White, M.D., F.R.C.P. *Treasurer:* Charles E. Beevor, M.D., F.R.C.P. *Editor (ex officio):* A. De Watteville, M.A., M.D., B.Sc. *Secretaries:* J. S. Risien Russell, M.D., F.R.C.P.; W. S. Colman, M.D., F.R.C.P. Sir Samuel Wilks, who was an original member of the Society, and was its second President, was unanimously elected as honorary member. The next meeting of the Society will be a clinical one, and members intending to show cases are requested to communicate with one of the honorary secretaries as soon as possible.

West London Medico-Chirurgical Society.—At a meeting on February 3rd, Dr. T. D. Clippingdale, President, in the chair, a discussion on the Treatment of Appendicitis was introduced by Dr. Seymour Taylor and Mr. McAdam Eccles. Dr. Seymour Taylor considered that the physician's advice was of great weight in two periods of the disease, (1) the preventive period, when by so ordering the patient's diet and mode of life an attack of appendicitis might be postponed or even prevented; (2) when a local tumour having formed, the progress of the disease might be arrested at a point short of the formation of pus. Suppuration having occurred, treatment must be entirely at the hands of the surgeon. In the first stage diet should be largely liquid, with vegetables and some beef extract. Milk should be rigidly excluded, as it tended to constipation, with bulky or scybalous stools. In the second stage his experience was strongly in favour of treatment by perfect rest, small doses of opium frequently repeated, and the administration of copious enemata of soap-water and olive oil. Mr. McAdam Eccles said that he considered that surgical interference was called for in all cases where there was suppuration, whether local or remote, in instances where there was general septic peritonitis, and in many cases between attacks, so that the offending organ might be removed. When an abscess in the right iliac fossa had to be dealt with, two points needed emphasis: one that a very free exit for the pus should be secured, and the other that nothing more than free drainage, as a rule, should be attempted. His belief was that most cases thus treated did well, and had but little tendency to be again troubled with the appendix. He laid stress upon the fact that he thought that it was not advisable to explore the area of suppuration until time had elapsed, so that peritoneal adhesions, shutting off the general cavity of the peritoneum, might have formed. The pus did not tend usually to pass into the serous cavity, and therefore too early operation was a mistake. The discussion was continued by Dr. Donald Hood, Mr. Keetley, Mr. Bidwell, Dr. Caley, Mr. E. T. A. Boyton, Dr. George Eccles, Mr. Lunn, and Dr. Dobson.

Folkestone Medical Society.—At a clinical meeting on February 1st, Dr. Tyson (President), who was in the chair, showed: (1) A case of Myeloid Sarcoma of the Superior Maxilla removed six months ago with no recurrence; (2) Carcinoma of Breast operated on, and subsequent Atrophy of Enlarged Thyroid; (3) Tabes Mesenterica, with Pyloric Obstruction by Glands; (4) Encysted Hydrocele of Cord; (5) Tuberculous Tarsus; and (6) a case of Ranula.—Dr. Lewis showed: (1) A girl, aged 16, from whom he had removed the Left Breast for Hypertrophy; (2) Photographs of an Apparatus designed to educate patients to Breathe through the Nose, after operation for adenoids; (3) Photograph of Graves's Disease with Unilateral Exophthalmos, no thyroid enlargement, but tachycardia and Graefe's sign present; Photographs of Myxœdema before and after treatment; (4) Specimen of Calcified Fibroid; (5) Samples of Sterilised Milk; (6) a new form of Aspirating Syringe; and (7) Skiagraphs.—Dr. Cecil Latter showed: (1) A case of Congenital Heart Disease; (2) Specimens from Carcinoma of Stomach.—Mr. Barrett showed: (1) A patient with Advanced Epithelioma of the Lip; (2) a Photograph of another similar case.—Dr. Eastes, Mr. Linington, and Dr. Larking showed Microscopical Specimens.

Newport Medical Society.—At a meeting on January 4th, the President in the chair, Dr. T. Morrell Thomas showed a case of Enlarged Thyroid, and read notes of the same.—Dr. R. J. Paton read a paper on Hernia, with special reference to the operation for strangulated hernia and description of the various operations for the radical cure of the same. A discussion followed.—It having been proposed to form a lending library, the purchase of books was authorised.

Bradford Medico-Chirurgical Society.—At a meeting on January 17th, Mr. Horrocks (Vice-President) in the chair, Dr. Eurich gave a Microscopical Demonstration.—Dr. Rabagliati showed a Fibro-myxoma of the Uterus, weighing 11½ lbs., which had been successfully removed.—Dr. Kerr read notes on two cases of Lateral Sinus Pyæmia: (1) A boy of 15 years who had suffered from ear discharge for several years. On admission there was paresis of the right side of the face and loss of taste on the right side of the tongue. The right mastoid was opened, and a cavity filled with stinking cholesteatomatous material was emptied; two days later a superficial abscess formed over the temporal bone, and was opened. The temperature, however, still rose to 104° in the evening, and fell to normal in the morning. The sigmoid sinus was then explored, and thick green pus found about it; this was cleared away and packed with gauze, and the jugular vein ligatured. No improvement occurred; facial paralysis was now marked. A week after admission pneumonic symptoms began, together with constant diarrhœa, and the child died a fortnight after admission. Antistreptococcus serum was administered, but produced no good effect. At the necropsy there was found extension of the thrombus back in the lateral sinus and up the petrosal sinuses. There was discoloration of the bone and erosion and pus about the jugular foramen. Several perforations of the walls of the jugular vein were found, and the infection appeared to have reached the sinuses by extension from the floor of the middle ear through the vault of the jugular dome. (2) A boy, aged 5 years, who had suffered from ear discharge for a considerable time. Shortly before admission an abscess had been opened behind the ear. When seen on November 12th, 1898, the temperature was 97.2°, pulse 104. Next morning the pulse was 140, and the temperature was 103.6°. He was mentally clear; no headache or pain; the tongue was dry and furred, and discharge was free. There was no thickening about the jugular vein, and no rigors or retraction of neck. At the operation, November 13th, 1898, an incision was made over the left mastoid bone, and a considerable area of bone was found to be bare. Pus was found deep in the mastoid on chiselling, but no discharging track was noticed. The lateral sinus was then exposed freely backwards, and seen to be greenish-blue in colour, and thrombosed. The jugular vein was ligatured in two places and divided, and the septic clot scraped away. There was free bleeding, which was controlled by plugging. The whole wound was rubbed thoroughly with iodoform and boracic acid. The patient was collapsed, as the operation had lasted 100 minutes. The after-progress of the case was at first unsatisfactory, and injections of antistreptococcus serum were given, but the fever still continued, and there was pain in the chest. A week after the previous operation, the wound was reopened and the sinus traced back till healthy vessel was reached, it was thoroughly scraped out and plugged with gauze. The middle ear was curetted, and, together with the mastoid antrum, made aseptic as far as possible. Serum injections were given again at intervals of thirty hours. The cough continued for a few days, but apart from this the case progressed satisfactorily, and the boy was able to return home on December 20th, 1898. Dr. Kerr remarked that recovery in these cases was unusual after chest symptoms had appeared. He said the serum appeared to have produced no beneficial effect. He advocated early operation in cases of otitis media where there was a fluctuating temperature. Drs. Horrocks, Mitchell, Bell, Farrow, and Bronner commented on the cases; and Dr. Kerr replied.—Mr. Althorp read notes on a case of Lymphosarcoma involving the Stomach, Colon, and Rectum in an unmarried woman, aged 29. The first symptoms of illness were in June, 1898, and consisted of diarrhœa and vomiting, with fever. The fever persisted but the other symptoms subsided with rest in bed. On September 10th, 1898, she was admitted to hospital with symptoms of chronic intestinal obstruction, and on examination a growth of the rectum was found. Left inguinal colotomy was performed on September 21st; the fingers introduced into the abdominal cavity felt the pelvic contents matted together. The patient progressed satisfactorily, and the bowel was opened on the fifth day. For about six weeks she did well, and was able to be up and about the ward, but at the end of that time began to complain of abdominal pain until her death on November 16th. There had been free discharge of fæces all this time. A fortnight before death a swelling was noticed in the position of the transverse colon, and during the last week of life she vomited freely. At the necropsy there was found a growth involving (1) the stomach in its pyloric half, the small curvature, and spreading up to the œsophagus; (2) the cæcum ascending and transverse colon; (3) the rectum, matting together the pelvic contents. There was only one secondary growth, which was in the bronchial glands. Mr. Althorp discussed the treatment of rectal growths. Dr. Eurich gave a description of the microscopic appearances of the growth, pronouncing it to be a lymphosarcoma. He discussed the nature of lymphosarcomata, and suggested a parasitic origin in the case under consideration, although there was no direct evidence in the shape of organisms. Drs. Horrocks, Goyder, Hall, and Metcalfe discussed the case.—Cases were shown by Dr. A. Bronner, Kerr, and Althorp.

REVIEWS.

Manual of Ophthalmic Medicine and Surgery. By Walter H. H. Jessop, M.A., M.B.Cantab., F.R.C.S. London; J. and A. Churchill. 1898. (Crown 8vo, pp. 484. 9s. 6d.)

Yet another textbook has been added to the already formidable number dealing with ophthalmic surgery. The book includes a description of the systematic examination of the eye by all the various methods in common use. The diseases of the eye, eyelids, and orbit, the muscular affections, refraction, and accommodation are described, while the last chapter is devoted to eye symptoms and affections in general diseases. There is a very useful appendix, containing formulæ, general directions for operating, and for the application of lenses, spectacles, etc., and also the very important rules relating to vision testing for the Government services, without which no book on ophthalmology is complete.

The first three chapters are devoted to the subject of the examination of the eye, and the various methods are illustrated by woodcuts some of which might be improved upon; there are other coloured plates representing normal and diseased fundi which are excellent, and which give a very good idea of the conditions they are intended to show. The pathology of various eye diseases is brought fairly well up to date, but, probably owing to the size of the book, it was not possible for the author to go very fully into detail. On reading some of the remarks concerning known pathological processes, one is rather struck by such statements as that "the hypopyon accompanying an ulcer is produced by micro-organisms conveyed by the corneal lymphatics to the iris and ciliary body which sets up inflammation of these structures with exudation of lymph cells." The abundant observations which have been made by Leber and by a very large number of other writers on this subject have been sufficient to convince most ophthalmologists that the so-called hypopyon accompanying ulcers is absolutely sterile, and that the interior of the eye is free from organisms of any sort so long as the ulcer has not perforated. Indeed, the clinical evidence of the aseptic nature of this condition is strong. What, for instance, is more common than to see a hypopyon completely disappear with the arrest of the corneal ulceration, and leave in favourable cases no visible trace behind it? But when once an eye is infected with septic organisms, panophthalmitis is as a rule the inevitable consequence. Although few will doubt the efficacy of counter irritation in photophobia, yet the wisdom of applying "setons behind the ear" may be doubted, for the risk of inducing general septic infection is far from fanciful under such conditions.

In the treatment of panophthalmitis Mr. JESSOP states that "incisions may be made through the cornea" or "the contents of the eyeball (may be) cleared," but in his opinion, excision should never be performed, as fatal meningitis has been known to ensue. Pseudoglioma is described either as a purulent choroiditis or as suppuration in the vitreous. It must surely be rare to see an eye in either of these conditions which could be mistaken for glioma, and it seems a pity to use the term for any other condition than one in which there is great difficulty in determining whether a glioma is present or not, as may happen in cases of detachment of the retina following a slow inflammatory process without symptoms.

On turning to the chapter on Refraction we find the condition fully described, and the student will get a very good idea of the subject from perusing it. The author's views on the treatment of myopia, are somewhat different from those generally held. We are told that children myopic to the extent of 1.0 D should wear spectacles of − 0.75 D in reading if there be a tendency on the part of the patient to hold the book too near. In myopia up to 5.0 D spectacles correcting about two-thirds of the error should be ordered for reading only, as besides being detrimental to the child's appearance, the constant use of glasses causes the distant vision to become sensibly reduced without any increase in the myopia.

The book will rank with other textbooks on ophthalmology of similar size as a convenient work for general use.

DISEASES OF THE SKIN: AN OUTLINE OF THE PRINCIPLES AND PRACTICE OF DERMATOLOGY. By MALCOLM MORRIS. With 10 coloured plates and 26 engravings. New and revised edition. London: Cassell and Company. 1898. (Cr. 8vo, pp. 606, 10 coloured plates, 26 engravings. 10s. 6d.)

THE first edition of this work was fully noticed in our columns, and the opinion we expressed as to its general usefulness has been borne out by the fact that it has been out of print for more than a year. In this new edition the general features of the book have not been essentially changed, although some redistribution of matter has been made, the treatment of diseases of the skin due to disorder of the nervous system being in this edition given with the description of the several diseases. The book has been carefully edited and brought up to date, and this has been managed without an excessive addition to its size, an increase of thirty-three pages sufficing for the introduction of such new matter as the author considers necessary.

The first edition contained eight coloured plates; in this new edition two additional coloured plates are given. One of these shows very clearly the size and relative appearances of the various vegetable fungi of the skin, the small and large-spored ringworm, the fungus of favus, tinea imbricata, microsporon furfur, and the microsporon minutissimum. The other new plate illustrates actinomycosis, the fungus of madura foot, tubercle bacilli, leprosy bacilli, and other micro-organisms. The execution of these two plates is commendable.

Amongst the new illustrations there is one of dermatitis herpetiformis, showing the appearances of this remarkable disease as well as can be done without colour. There is also an excellent illustration of tinea imbricata, a fair one of elephantiasis, one of the microscopic appearances of a section through lupus skin which comes out very indifferently, a representation of fibroma, an excellent illustration of the microscopic appearances in molluscum contagiosum, and drawings of the microscopic appearances in epithelioma and rodent ulcer which do not come up to the average.

Mr. Morris's book gives within a relatively small compass an account of diseases of the skin sufficient for the needs of all but specialists; to the latter, also, it may be commended for the accuracy and conciseness with which all that is essential in the subject is summarised.

In the revision of the work the author acknowledges valuable assistance given by Dr. Galloway and Dr. Whitfield.

HEALTH IN THE NURSERY. By HENRY ASHBY, M.D., F.R.C.P. Physician to the Manchester Children's Hospital, and Lecturer on Diseases of Children at the Owens College. London: Longmans, Green and Co. 1898. (Cr. 8vo, pp. 240, 15 illustrations. 3s. 6d.)

THIS is an excellent book for mothers and nurses. It has the merit of discursive simplicity, which is certain to make it interesting to those for whom it is intended, while it does not take them out of their depth by figures, tables, or a nomenclature beyond their ken. The author's aim—"to set forth the conditions conducive to healthy childhood"—is kept well in view throughout the book, and there is a refreshing paucity of advice concerning the application of the remedies commonly called "domestic." The chapter on the feeding of infants is one of the best we have come across.

One of Dr. ASHBY'S objects being to combat the sins of negligence and ignorance, which those in charge of infants inherit from generation to generation, we could have wished for a less calmly judicious tone, and for more emphasis on sundry points—for instance, on the use (or rather misuse) of the disgusting and irrational "comforter," and on the right and wrong application of the napkin. On the latter point nothing is said regarding the custom of trussing the unfortunate infant so that the only tolerable position is one with the knees flexed upon the abdomen, extension of the legs being an impossibility.

The chapters on the mental development of the child are very good and full, and form a new and welcome departure from the ordinary treatise on health from which both the readers and children under their care should benefit.

FRENCH ANATOMICAL ASSOCIATION.—The first meeting of the Association des Anatomistes, which is intended to form the nucleus of a "Latin Anatomical Association," was held recently in Paris, under the presidency of the distinguished embryologist, Professor Balbiani, of the Collège de France. The Vice-Presidents were Professors Mathias Duval, of Paris; Renaut, of Lyons; and Romiti, of Pisa. Professor Nicolas, of Nancy, was appointed Secretary. Professor Ranvier, of Paris, and Professor Van Bambeke, of Ghent, were elected Honorary Presidents, in addition to a considerable number of French teachers and investigators. Several foreign anatomists were present, including Professors Van der Stricht, of Ghent; Van Gehuchten, of Louvain; and Mitrophanoff, of Warsaw. The next meeting of the new Association will be held in connection with that of the Anatomical Section of the International Medical Congress to be held in Paris in 1900.

PARLIAMENTARY BILLS COMMITTEE.

A SPECIAL meeting of the Parliamentary Bills Committee was held at the office of the Association, 429, Strand, W.C., on February 3rd, 1899.

Present:

Dr. R. FARQUHARSON, M.P., Chairman, in the Chair.

Mr. D. B. BALDING, Royston.
Dr. R. W. BATTEN, Gloucester.
Dr. T. BRIDGWATER, Harrow-on-the-Hill.
Mr. GEO. BROWN, London.
Dr. W. A. CARLINE, Lincoln.
Mr. GEORGE EASTES, London.
Dr. A. GODSON, Cheadle.
Dr. MAJOR GREENWOOD, London.
Dr. J. GROVES, Carisbrooke.
Mr. J. H. HEMMING, Kimbolton.
Dr. HOLMAN, London.
Mr. VICTOR HORSLEY, F.R.S., London.
Mr. C. H. W. PARKINSON, Wimborne Minster.
Dr. F. M. POPE, Leicester.
Dr. A. BROWN RITCHIE, Hulme.
Dr. J. ROLSTON, Devonport.
Dr. G. E. SHUTTLEWORTH, Richmond.
Mr. W. D. SPANTON, Hanley.
Mr. C. R. STRATON, Wilton.
Dr. DAWSON WILLIAMS, London.
Dr. S. WOODCOCK, Old Trafford.

Letters of apology for non-attendance were read from:

The President of Council, the Treasurer, Brigade-Surgeon-Lieutenant-Colonel E. F. Drake-Brockman, Dr. Bruce Goff, Dr. C. E. Gooding, Dr. A. J. Harrison, Mr. Evan Jones, Dr. A. R. Manby, Dr. J. W. Miller, Mr. Jones Morris, Dr. James Ritchie, Inspector-General Turnbull.

The CHAIRMAN reported that the special meeting had been summoned chiefly to consider the Midwives Bill.

THE MIDWIVES BILL.

Dr. Woodcock brought up the report on the Midwives Bill made by the Medical Acts Amendment Subcommittee. The report took the form of an amended Bill, which, with certain additional amendments adopted by the Parliamentary Bills Committee, is printed below.

Dr. WOODCOCK said that it would be in the memory of those who had taken any interest in this subject that the Midwives' Institute had been very persistent in attempting to effect some sort of legislation. The representatives of the Midwives' Institute had interviewed the Lord President of the Council, who made certain suggestions which seemed to indicate that if they could bring their proposals into line with the suggestions of the General Medical Council, it was not unlikely that the Government would support legislation. In view of the fact that after that intimation from the Lord President of Council the Midwives' Institute made some attempt to adopt the suggestions of the General Medical Council, it appeared not unlikely that a Bill promoted by them might be successful, because it was not at all beyond the bounds of possibility that the Government would support legislation which embodied the principles laid down by the General Medical Council. When the new Bill of the Midwives' Institute was submitted as a matter of urgency to the Subcommittee of the Parliamentary Bills Committee some important omissions were found, for the Midwives' Institute had not complied with all the recommendations of the General Medical Council. In the first place the Subcommittee found that the definition of midwife was not satisfactory. The definition of the Bill promoted by the Midwives' Institute was that the term "midwife" meant a woman who undertook for gain to attend women in childbirth. Now, there had always been a strong opinion that the definition should be more definite, and that if these women were licensed or recognised by law there should be some limitation to their practice. The Subcommittee therefore proposed, in the first place, that the definition should be expanded to:

> A "midwife" means a woman who undertakes for gain to attend cases of natural labour, and during the lying-in period, under the rules, regulations, and medical control or supervision set forth in this Act.

Some medical control was, of course, absolutely necessary, and a later clause in the Bill proposed recognised this. But the Subcommittee thought it a matter of importance that the definition should be enlarged. With regard to the term "licensing," to which he found objection in some quarters was taken, it might be stated that great objection was expressed to the term "registration," because there was a *Medical Register*, and the term might lead to confusion. It was therefore thought better on the whole to use the word "licence." With regard to Clause 3, Subclause 2, they found there was a serious defect. This subclause as it stood in the Midwives' Institute Bill was as follows:

> Any woman who, after the first day of January, one thousand nine hundred, not being licensed under the Act, shall take or use the name of midwife *or* any such name, title, addition, *or* description as aforesaid, or shall habitually or for gain attend women in childbirth, shall be liable on summary conviction to a fine not exceeding five pounds.

The Subcommittee considered that that left it open for the women to employ any number of unlicensed assistants. It was well known that in large towns where midwives had large practices, they accepted engagements to more cases than they could personally attend. He (Dr. Woodcock) knew of many cases in which women regarded themselves as assistants of Mrs. So-and-so, midwife. The Subcommittee had therefore added the following words after the word "childbirth."

> or shall employ as a substitute at any childbirth for which she had been engaged any person not licensed under this Act.

With regard to the "privileges of licensing," the Subcommittee had made very considerable additions, and they hoped that they had sufficiently safeguarded the interests of the poor and of the profession. With reference to Clause 4, Subclause 2, that might appear by some to be unnecessary, but there had occurred within the last ten days at Lincoln a case the main facts of which were stated in the BRITISH MEDICAL JOURNAL, February 4th, p. 294. In this case a woman practising as a midwife had frankly said to the coroner that she was perfectly justified in giving a medical opinion, and was so convinced that the condition of the child, which she said was born prematurely, was hopeless, that she considered there was no need to call in medical aid, and that she herself was competent to give the necessary certificate. The Subcommittee thought that the repetition of such occurrences must be prevented, and for that reason considered that it should be distinctly laid down in the Bill that midwives should not give certificates. With regard to the provision for existing midwives in the Bill promoted by the Midwives' Institute the Subcommittee did not approve of the recognition of the certificate of the Obstetrical Society of London. They considered that it would be better that this matter should be left to the Central Midwives Board, and that this Board should be the judge as to the sufficiency of the evidence produced by the woman seeking a licence as to the training she had received. These views were embodied in Clause 5 of the Committee's amended Bill. With regard to the next clause, which dealt with the constitution and duties of the Central Midwives Board, the Subcommittee were of opinion that certain alterations were essential. It should be made clear that the President had not the right to deal with the matter without consulting the General Medical Council itself, and it was therefore proposed that the duty of appointing the Board should be imposed on the General Medical Council as a whole. The Subcommittee further considered that the constitution of the Central Midwives Board proposed in the Midwives' Institute Bill was not sufficiently representative. The proposal was that, of the six representatives, four should be registered medical practitioners—one to be elected by the Royal College of Physicians of London, one by the Royal College of Surgeons of England, one by the Society of Apothecaries, and one by the Incorporated Midwives' Institute. While it was possible that the last-named body knew more about midwifery than the others, still it was felt to be a departure from ordinary procedure that the Midwives' Institute should set itself up to be a recognised body holding a position entitling it to send a representative to the Board which should control the conditions under which this new class of people should be licensed. The Subcommittee suggested that the Board should consist of seven registered medical practitioners appointed as follows: Six to be selected by the General Medical Council to represent the following districts as defined by the Registrar-General; London and South Eastern, 2; South Western, West Midland and Welsh, 1; Eastern, North Midland, and South Midland, 1; York and Northern, 2; with 1 registered practitioner appointed by the Lord President of the Privy Council. In this way the Board would be representative, not only of the medical interests involved, but also of the various localities. By giving this representative character to the Board the local investigation of charges of misconduct or malpraxis against a midwife would be facilitated. The Subcommittee proposed to introduce a new subclause (Clause 6, Subclause 4) providing that no member of the Midwives Board should act as teacher or examiner of midwives, and that no member of the Board should take any part in any inquiry as to the conduct of a midwife to whom he had acted as teacher. This was considered to be essential in order to prevent any suspicion of collusion or the exercise of undue influence. In the Bill of the Midwives' Institute there was no provision to the effect that the Midwives Board could lay down rules, subject to the approval of the General Medical Council, for the education and training of midwives. The Subcommittee therefore recommended a subclause to this effect, and also a subclause directing the Board to frame regulations, subject to the approval of the General Medical Council, for the proper conduct and inspection of any premises in which a midwife might receive a pregnant or lying-in woman. Some women who practised as midwives in large towns were in the habit of receiving into their private houses women who were expecting their confinement under circumstances not quite creditable to them; the Subcommittee therefore considered that control of the nature indicated was required. Those who had had much to do with the ordinary midwife knew how frequently the delay which occurred in sending for medical aid rendered it almost impossible to render effectual aid to mother and child. The Subcommittee therefore suggested that misconduct on the part of any midwife should include omission to send for a registered medical practitioner where the case was not one of natural labour (Clause 6, Subclause 5 *g*). The Subcommittee also proposed that the Board should have power to delegate the duty of inquiring into cases of misconduct to committees of their number, such Committee to have power to suspend the licence of any nurse pending inquiry by the Board. In this way the duty of making inquiries might be delegated to local representatives, thus ensuring greater efficiency as well as economy. The statement as to the duties of the secretary in the Midwives' Institute Bill was very bald, and the Subcommittee had therefore expanded this in the manner shown in Clause 9. With reference to the local supervision of midwives, the Subcommittee felt that it would be impossible for the medical officer of health, say of a large county borough, to undertake the duty of supervising all the midwives in his area, while in smaller districts the medical officer did not always occupy a position of sufficient independence; the Subcommittee therefore proposed that there should be three medical practitioners in each district who should be charged with the duty of exercising the supervision over midwives in their respective localities. The Subcommittee had also introduced a provision directing the local registrar of deaths to transmit at once to the supervising authority a notice of the death of any midwife in his district. This would prevent the possibility of a woman assuming the name and continuing the practice of a midwife who had died. With regard to the prosecution of offences, the Subcommittee, having in view the fact that a person or institution might incur considerable expense in obtaining the conviction of a person under the Medical Acts, and yet not receive the amount of the penalty if the conviction occurred in London, since all such penalties were paid through the Metropolitan police, had introduced a clause (15) directing any fine to be paid to the Central Midwives Board. In this way the authority burdened with the responsibility of supervision would not be deprived of fines inflicted for contravention of the law. Dr. Woodcock then drew attention to Clauses 17 and 18 of the amended Bill of the Subcommittee. Dr. Woodcock concluded by saying that the Subcommittee had studied the Bill very carefully, and that they felt anxious that the question should be settled, and that in this settlement the interests of the women of the poorer classes who now employed, and who would continue to employ, midwives, should be safeguarded. If midwives were to continue to exist, and he took it that they would continue to exist, the Subcommittee considered that it was better that they should be licensed and brought under the control of some authority than that they should be, as at present, subject to no control. While the Subcommittee were opposed to creating an inferior class of medical practitioners they felt that it was necessary in the interests of the public welfare that these women should be brought under regulations which should not infringe upon the rights and privileges of the medical profession.

Dr. **BROWN RITCHIE** gave the results of an analysis of the changes which had been made in the various Bills of the Midwives' Institute at various dates, indicating in some instances the reasons for such changes. He then said that the Subcommittee desired to make a series of drafting amendments which would be moved as the Committee dealt with the Bill.

The Committee then, on the proposition of Mr. **GEORGE EASTES**, considered the Bill clause by clause, when certain emendations were approved. The Bill in its amended form stood as follows:

MIDWIVES BILL.

(Prepared by the Medical Acts Amendment Subcommittee of the Parliamentary Bills Committee) as adopted by the Committee and referred to the Council.

ARRANGEMENT OF CLAUSES.

Clause.
1. Short title.
2. Definitions.
3. Licensing.
4. Privileges of licensed persons.
5. Provision for existing midwives.
6. Constitution and duties of the Central Midwives Board.
7. Fees and expenses.
8. Midwives roll.
9. Appointment and duties of Secretary.
10. Local supervision of midwives.
11. Notice of death of any midwife.
12. Midwife's certificate.
13. Penalty for obtaining a licence by false representation, or acting without a certificate.
14. Penalty for wilful falsification of roll.
15. Prosecution of offences.
16. Appeal.
17. Civil and legal liabilities of midwives.
18. Control of lying-in homes.
19. Act not to apply to medical practitioners.
20. Extent of Act.

A BILL TO PROMOTE THE BETTER TRAINING OF MIDWIVES AND TO REGULATE THEIR PRACTICE.

BE it enacted by the Queen's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:

1. SHORT TITLE.—This Act may for all purposes be cited as the Midwives Act, 1899.

2. DEFINITIONS.—In this Act the term "midwife" means a woman who undertakes for gain to attend cases of women during natural labour and the lying-in period under the rules, regulations, and medical control or supervision set forth in this Act.

"Midwives Roll" means a roll of midwives kept in pursuance of this Act.

"Central Midwives Board" means the Board constituted under this Act for the purpose of carrying out the provisions of this Act.

3. LICENSING.—(1) From and after the first day of January, one thousand nine hundred, no woman shall be entitled to take or use the name or title of midwife (either alone or in combination with any other word or words), or any name, title, addition, or description implying that she is licensed under this Act, or is qualified to act as a midwife unless she be licensed under this Act.

(2) Any woman who, after the first day of January, one thousand nine hundred, not being licensed under this Act, shall take or use the name of midwife or any other such name, title, addition, or description as aforesaid: or shall habitually and for gain attend women in childbirth, or any woman who being licensed under this Act shall employ as a substitute at any childbirth any person not licensed under this Act, shall be liable on summary conviction to a fine not exceeding five pounds, provided always that nothing in this Act shall apply to any person or persons attending a woman during labour in a case of emergency, until the services of a person licensed under this Act, or of a registered medical practitioner, are available.

(3) No woman shall be licensed under this Act until she has produced evidence of having been instructed by a registered medical practitioner, and has complied with the rules and regulations to be laid down in pursuance of the terms of this Act.

4. PRIVILEGES OF LICENSED PERSONS.—(1) A woman licensed under this Act shall be entitled to act as a midwife in England and Wales. From and after the first day of January, one thousand nine hundred and —— no woman shall be entitled to re-

cover any fee or charge in any court for attendance or service rendered as a midwife unless such woman be licensed under this Act, and the licence under this Act shall entitle a woman to act as a midwife in cases of natural labour only in accordance with the terms of this Act, and under the rules, regulations, and medical control or supervision set forth in this Act, and any amendments of, or additions to, such regulations which may be laid down by the Board in pursuance of the terms of this Act.

(2) A licence under this Act shall not confer upon any woman any right or title to be registered under the Medical Act, 1858, or the Acts amending the same in respect of such licence, or to assume any name, title, or designation implying that she is by law recognised as qualified to practise medicine or surgery or midwifery, or to act otherwise than as a midwife as aforesaid, or that she is qualified to grant a certificate of death or of stillbirth or any medical certificate. Any woman contravening this section shall, upon summary conviction, pay a sum not exceeding five pounds.

(3) Provided always, that no midwife shall be entitled to recover any fee or charge for attendance as such, unless she has either personally or by a substitute (who must be a person licensed under this Act) performed the duties specified by the Board.

5. PROVISION FOR EXISTING MIDWIVES.—Any woman who at the passing of this Act has been in *bonâ fide* practice as a midwife, of which fact the Board shall be the sole and final judge, or has obtained such licence in midwifery as may be approved by the Board, and claims to be licensed before the expiration of one year from the passing of this Act, and produces to the satisfaction of the Board both evidence of her title to be so registered and evidence of good character, shall be entered on the Midwives Roll and licensed to practise under this Act at such fee as the Board shall prescribe.

6. CONSTITUTION AND DUTIES OF THE CENTRAL MIDWIVES BOARD.—(1) Within six months after the passing of this Act the General Medical Council shall appoint a Board consisting of seven registered medical practitioners as members of, and to constitute, a Board, which shall meet on an appointed day to draft rules, arrange meetings, appoint a chairman, registrar, and other officials, and an executive and other committees. The members of the Board shall be elected for a period of three years, and on the death, resignation, or withdrawal of a member, the General Medical Council shall elect a successor from the district vacated.

(2) Six members of the Board shall be selected as follows, by the General Medical Council, from registered medical practitioners resident in or practising in the following districts as defined by the Registrar-General:

London and South-Eastern ...	2 Representatives.
South-Western, West Midland, and Welsh	1 Representative.
Eastern, North Midland, and South Midland	1 Representative.
York and Northern	2 Representatives.

(3) One registered practitioner shall be appointed a member of the Board for a term of three years by the Lord President of the Privy Council.

(4) After two years from the passing of this Act one half of the six members of the Board selected by the General Medical Council shall retire, but shall be eligible for re-election, and thereafter one-half of such members of the Board shall retire annually in such manner that each of such members shall serve a term of two years before retiring, and members so retiring shall be eligible for re-election.

(5) In the event of the death or resignation of a member of the Board the successor elected or appointed shall hold office for the remaining period for which the deceased or resigned member was elected, and must be qualified equally with such deceased or resigned member to hold office as a member of the Board, and shall, on retiring, be eligible for re-election.

(6) No member of the Board shall act as teacher, instructor, or examiner of midwives, and no member of the Board shall take any part in any inquiry respecting the conduct of any midwife to whom he or she has acted as teacher or instructor.

*(7) The Board shall:

(*a*) Lay down rules subject to the approval of the General Medical Council for education and training of midwives.

(*b*) Make rules subject to the approval of the General Medical Council for conducting and superintending the examinations for qualification of midwives.

(*c*) Frame regulations, subject to the approval of the General Medical Council, for the proper conduct and inspection of any premises a midwife may reside in or rent or be tenant of, and wherein she receives for midwifery care and attendance a pregnant or lying-in woman.

(*d*) Frame, and if necessary from time to time alter, subject to the approval of the General Medical Council, rules and regulations governing the practice of midwives.

(*e*) Conduct the examinations and appoint the examiners.

(*f*) Decide upon the places where and the times when examination shall be held.

(*g*) If any midwife shall be convicted in England or Ireland of any felony or misdemeanour, or in Scotland of any crime or offence, or shall, after due inquiry, be judged by the Board to have been guilty of misconduct as a midwife, the Board may, if they see fit, direct the Secretary to erase the name of such midwife from the Roll or suspend her licence for a definite period. For the purposes of this Bill misconduct as a midwife shall include any omission to send for a registered medical practitioner where the case is not one of natural labour. The Board may, after due inquiry, restore to the Roll the name of any person removed therefrom.

(*h*) Have power to delegate the duty of inquiry into cases of misconduct to Committees of their number, and such Committees shall have power to suspend the licence of any nurse pending inquiry by the Board.

(*i*) Issue licences and generally, by Committee or otherwise, do any such duty as may be necessary for the due and proper carrying out of the provisions of this Act.

7. FEES AND EXPENSES.—There shall be payable by every woman presenting herself for examination or licence such fees as the Central Midwives Board may, with the approval of the General Medical Council, from time to time determine. All fees paid by existing midwives and by candidates for examination shall be paid to the Central Midwives Board. The said Board shall devote such fees to the payment of expenses connected with the examination and licence, the local supervision of midwives, and to the general expenses of the Board. There shall be paid to the members of the Central Midwives Board such fees and reasonable travelling expenses as shall be authorised and allowed by Her Majesty's Treasury.

8. MIDWIVES ROLL.—There shall be a Midwives Roll containing:

(1) The names of those midwives practising at the date of the pasing of the Act who have been licensed to practise under the Act:

(2) The names of those not already in practice as midwives at the passing of the Act, but who have been licensed to practise under the Act. A copy of the Midwives Roll for the time being shall be in evidence in all Courts, that the women therein specified are licensed according to the provisions of this Act; and the absence of the name of any from such copy shall be evidence, until the contrary be made to appear, that such woman is not licensed according to the provisions of this Act. Provided always, that in the case of any woman whose name does not appear in such copy, a certificate under the hand of the Secretary of the entry of the name of such woman on the Roll shall be evidence that such woman is licensed under the provisions of this Act.

9. APPOINTMENT AND DUTIES OF SECRETARY.—The Central Midwives Board shall appoint a Secretary who shall be charged with the custody of the Roll, and who shall fulfil such duties as may be from time to time appointed by the Board.

10. LOCAL SUPERVISION OF MIDWIVES.—Every administrative County Council throughout England and Wales shall, on the passing of this Act, appoint a Committee of not less than three registered medical practitioners not teachers nor examiners of midwives as the local supervising authority over midwives within the area of the said county.

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* The duties of the Board as here stated are those detailed in the Association's original Bill but are similar to those of the Midwives Committee's Bill.

It shall be the duty of the local supervising authority:

(1) To issue midwives' certificates and to exercise general supervision over all midwives practising within the prescribed area, in accordance with the rules to be laid down under the provisions of this Act.

(2) To investigate charges of malpractice, negligence, or misconduct on the part of any midwife practising within his district, and, if the Committee considers that a *primâ facie* case is established, to report the same to the Central Midwives Board, and if they think fit to suspend the midwife's certificate pending inquiry by the Board.

(3) To suspend the midwife's certificate of any woman in accordance with the rules to be laid down by the Central Midwives Board, or if the Committee considers such suspension necessary to prevent the spread of infection.

(4) To report at once to the said Board the name of any midwife practising in the district convicted of a misdemeanour or felony.

(5) During the month of January of each year to supply the Secretary of the Central Midwives Board with the names and addresses of all midwives practising in the district, and to keep a current copy of the Midwives Roll, accessible at all reasonable times for public inspection.

11. Notice of Death of any Midwife.—The local Registrar of local deaths shall at once transmit the notice of death of any midwife in his district to the supervising authority, with particulars of time and place of death, and may charge the cost of such certificate and transmission as an expense of his office, and on receipt of such certificate the Secretary shall erase the name of such deceased midwife from the Roll.

12. Midwife's Certificate.—A woman who holds herself out as a practising midwife in any administrative county shall obtain from the local supervising authority a certificate enabling her to practise therein, which certificate shall be granted on proof by the woman that her name is on the Midwives Roll. The certificate shall remain in force till the thirty-first day of December following, and shall be revocable at any time by the local supervising authority in case the holder be proved, to the satisfaction of the Central Midwives Board, to have infringed any of the regulations framed under this Act. The certificate shall be renewed annually in the month of January. It shall be issued on payment of a fee to be determined by the Central Board, and shall only be available in the district for which it is issued.

13. Penalty for obtaining a License by False Representation, or Acting without a Certificate—

(*a*) Any woman who procures, or attempts to procure, a licence by making or producing, or causing to be made or produced, any false or fraudulent declaration, certificate, or representation, either in writing or otherwise, and any person assisting her therein, shall be deemed guilty of a misdemeanour, and shall on conviction thereof be liable to a fine not exceeding five pounds, or to be imprisoned, with or without hard labour, for any term not exceeding two months.

(*b*) Any woman who, after the first day of January, one thousand nine hundred, shall hold herself out as a midwife or shall practise in any administrative county without having previously obtained from the local supervising authority a certificate enabling her to practise therein shall be deemed guilty of a misdemeanour, and shall, on conviction thereof, be liable to a fine not exceeding two pounds, or to be imprisoned, with or without hard labour, for any term not exceeding one month.

(*c*) But a midwife shall not be guilty of a misdemeanour under this section by attending, on an emergency, a woman in childbirth in a district other than that for which she holds a certificate, provided she has within a reasonable time given notice of having so acted to the local supervising authority of that district.

14. Penalty for Wilful Falsification of the Roll.—Any person who wilfully makes, or causes to be made, any falsification in any matter relating to the Roll of Midwives shall be deemed guilty of a misdemeanour and shall be liable to a fine not exceeding ten pounds, or to be imprisoned, with or without hard labour, for any term not exceeding three months.

15. Prosecution of Offences.—Any offence under this Act punishable on summary conviction may be prosecuted, and any fine under this Act recoverable on summary conviction may be recovered in manner provided by the Summary Jurisdiction Acts; and all penalties shall be paid to the Treasurer of the Central Midwives Board, anything contained to the contrary in the Metropolitan Police Acts or any local Act passed before the passing of these Acts notwithstanding.

16.—Appeal.—(1) An appeal shall be allowed to the Privy Council should any disagreement arise between the General Medical Council and the Midwives Board respecting the carrying out of the provisions of the Act, or of any of them.

(2) Where any woman deems herself aggrieved by any order, conviction, judgment, or determination of or by any matter or thing done under this Act by any Court of Summary Jurisdiction, such woman may appeal therefrom to the Court of Quarter Sessions.

17. Civil and Legal Liabilities of Midwives.—In any civil or criminal proceedings against any person licensed under this Act such person shall be liable for any conduct or practice which shall fail to show a reasonable amount of skill or knowledge in the delivery of or subsequent attendance on a lying-in woman.

18. Control of Lying-in Homes.—Every licensed midwife who shall receive in her premises, or such premises as she may reside in, rent, or be tenant of, for the purpose of attendance during confinement, any pregnant or lying-in woman, shall keep such special record of such cases as may be laid down by the Central Midwives Board from time to time, and the Board shall have power to visit and inspect such houses, and may require registration of such premises and a fee for such inspection and report.

19. Exemption for Registered Medical Practitioners.—Nothing in this Act contained shall prejudice persons registered under the Medical Acts.

20. Extent of Act.—This Act shall not extend to Scotland or Ireland.

February 3rd, 1899.

It was proposed by Dr. Woodcock, seconded by Mr. Victor Horsley:

> That the Bill thus amended be adopted and referred to the Council for adoption, as that form of legislation on this subject which alone includes adequate safeguards both for the public health and for the interests of the medical profession.

Mr. George Brown proposed:

> That inasmuch as the great majority of general practitioners have repeatedly objected to the registration of midwives, this Committee recommend the Council to oppose the Bill.

He must, he said, admit that what the Subcommittee had done and what had been done by the Parliamentary Bills Committee, if the safeguards proposed were effectively carried out, would mitigate the evils which might be expected to arise from the Bill. He was not satisfied that the Bill in its present form would not be very injurious to the medical profession, and especially to the general practitioner. He thought it his duty to enter a protest against the Bill being adopted by the Council. He admitted that if legislation was going to take place, it ought to be made as strong as possible. He was, however, of opinion that they would be better without an Act at all, but that the Medical Acts should be enforced more stringently to prevent unqualified practice. He thought that the best plan the Committee could have adopted would have been for them to wait for the introduction of the Bill of the Midwives' Institute in the House of Commons, and then to go to the Lord President of the Council with the Committee's objections to the Bill, and then if possible endeavour to get the amendments adopted by the Midwives' Institute.

Mr. Parkinson said he wished to second Mr. Brown's amendment. Although he was opposed to a Midwives Bill altogether, yet he admitted that the Bill they had been going through had been modified in the best way possible. He came from an agricultural district where the members of the medical profession were the professional rivals of the midwives, and if midwives were going to be started all over the country districts the country practitioner would be able to struggle on no longer.

Dr. Groves said that while the profession in the country districts would be glad to have the services of a woman trained to act as a midwifery nurse, they did not want to see an inferior order of practitioners called into existence who would, he feared, set up in practice for themselves in country districts and compete with medical practitioners. While it was recognised that the Subcommittee had done excellent work, it was a question whether they were sufficiently acquainted with the conditions in rural districts.

Mr. HORSLEY said that he was not unacquainted with the conditions of practice in rural districts, as he had spent six months with a practitioner in such a district.

Dr. HOLMAN said that during forty years' experience of country practice, during nine of which he was in charge of 5,000 paupers, he had found it very necessary to have women to give their services to the parturient poor; to these women he himself taught the elements of obstetrics. Later in his experience he had not found that the younger practitioners objected to the services of such women, but, on the contrary, that they sought them out and even desired to have a trained midwife in the district. Such a woman did not interfere with the work which the younger men were doing.

Dr. MAJOR GREENWOOD said that if he was certain that the Government were going to introduce or push on a Midwives Bill he would feel more ready to approve the course which the Subcommmittee recommended; but he was not confident that this was the case, and he believed that a large majority of medical practitioners were opposed to any Bill at all.

Dr. WOODCOCK observed that from his experience of the feeling of the members of Parliament gained during the many years over which the controversy had now extended, he felt absolutely clear that it was necessary for the profession to have an alternative to the legislation which was being promoted by persons of great social position and influence. A great impression had been produced upon the leaders of both parties in the House of Commons, and he was confident that something would have to be done. If the profession did not maintain a reasonable attitude and show a reasonable spirit, their objection would not have weight with Parliament. The profession must make it plain that it was prepared to assist and not merely to thwart Parliament. If there was to be legislation, he was very anxious that the interests of the medical profession should be safeguarded, and the only way to accomplish this object was to be prepared to indicate to the Legislature the nature of the safeguards which were necessary.

The CHAIRMAN said that the issue before the meeting was whether the Bill, which had been revised with so much care by the Subcommittee, should now be sent by the Parliamentary Bills Committee to the Council. He must take a direct vote on that.

The motion having been put from the chair was declared to be carried as follows:

That the Bill thus amended be adopted and referred to the Council for adoption, as that form of legislation on this subject which alone includes adequate safeguards both for the public health and for the interests of the medical profession.

TENURE OF OFFICE OF SCOTTISH POOR-LAW MEDICAL OFFICERS.

The CHAIRMAN said that, in accordance with his promise given at the last meeting of the Committee, he had had an interview with Lord Balfour of Burleigh, and had asked him whether he would view with favour a Bill if brought forward by the Committee. Lord Balfour was unable to give any opinion on any Bill the exact terms of which he had not seen. He (the Chairman) thought that if Lord Balfour did not give the Bill sympathetic consideration, he would give it careful consideration. Lord Balfour was of opinion that it would be better to introduce the Bill in the House of Commons and not the House of Lords.

On the motion of Mr. GEORGE EASTES, seconded by Dr. MAJOR GREENWOOD, it was resolved:

That Mr. Alexander Cross, M.P., be invited to introduce a Bill into the House of Commons on the basis of a Bill to amend the Local Government (Scotland) Act, 1894, and that the petition to Lord Balfour of Burleigh be signed by the Chairman on behalf of this Committee.

CENTRAL FUND FOR THE SUPERANNUATION OF POOR-LAW MEDICAL OFFICERS.

The question of a central fund for providing for the superannuation of Poor-law officers was discussed, and on the motion of Mr. GEORGE EASTES, seconded by Mr. GEORGE BROWN, the following resolution was carried.

That a Subcommittee be appointed to consider the question of the formation of a central fund for the payment of superannuation allowances to Poor-law officers, with power to confer with the Poor-Law Officers' Association, and to report back to this Committee at its next meeting, consisting of Mr. Balding, Dr. Major Greenwood, Dr. Groves, and Mr Parkinson.

THE NEED FOR FURTHER VACCINATION LEGISLATION.

The following resolutions drawn up by the Subcommittee of the Parliamentary Bills Committee have been adopted by the Council of the British Medical Association. Copies have been sent to every member of Parliament and to the newpapers:

A Revaccination Bill: The Conscience Clause.

1. That the Council was greatly gratified by the statement regarding the introduction of a Revaccination Bill in the session of 1899 made during the debate in the House of Lords on August 4th by Lord Lister, and confirmed on behalf of the Government by Lord Harris.
2. That the need for a Revaccination Act has been distinctly increased by the proceedings which have already taken place under Section 11 of the Vaccination Act, 1898.
3. That the manner in which Section 11 of the Vaccination Act, 1898, has been administered by various benches of magistrates proves that the section does not necessarily provide any test whatever of the reality or strength of objection to vaccination.
4. That the section having been passed by Parliament with the specific purpose of yielding such a test in accordance with the recommendation of the Royal Commission, and having been drafted in so unsatisfactory a manner as to fail to provide the required test, while it has at the same time been so used as to promote the wholesale evasion of vaccination, it is in the opinion of the Council essential that if Parliament still desires to relieve strenuous and persistent opponents of vaccination from the duty of using the only known means of protecting their children against small-pox, it should devise a procedure calculated to effect this purpose without at the same time relieving persons who cannot truthfully be so described, and should embody such procedure in an amending Act in a manner so definite and detailed as to make perfectly clear and uniform the steps required to obtain such relief.
5. That the Council is of opinion that any concession made to strenuous and persistent objectors to the vaccination of their infant children should, in the first place, take the form only of a suspension of the requirement of the law until the school age, when it should become the duty of any parent still strenuously opposed to vaccination to take steps laid down by the law to obtain further relief.
6. That the Council therefore with the utmost earnestness urges the Government and Parliament to pass an Act during the ensuing session to promote the revaccination of children on reaching the age of about 12 years and the primary vaccination of unvaccinated children on reaching the school age, and to amend Section 11 of the Vaccination Act, 1898.

DONATIONS AND BEQUESTS.—The late Mr. David Aitchison of Maidenhead Thicket, has, by his will, bequeathed £5,000 to the Edinburgh Royal Infirmary. He has also bequeathed £10,000 to the Chancellor and Council of the University of Melbourne to found scholarships for the benefit and assistance of poor talented young men during their University career and for a period not exceeding three years thereafter.

GERMAN SURGICAL CONGRESS.—The twenty-eighth Congress of the German Surgical Society will be held in the Langenbeckhaus, Berlin, from April 5th to 8th under the presidency of Professor Eugen Hahn.

THE POOR-LAW MEDICAL SERVICE IN IRELAND.

AT the annual meeting of the Dublin Branch of the British Medical Association held in the Royal College of Physicians, Dublin, on February 6th, 1899, Dr. FRANCIS T. HEUSTON, who was elected President for the ensuing year, delivered the following address on the Present Conditions of the Poor-law Medical Service in Ireland:

"In bringing before you to-day the subject of the Poor-law Medical Service I do not consider any apology is needed from me, as a service employing over 800 of our professional brethren scattered throughout this country is one of the greatest importance, not alone to the medical profession which supplies occupants for the posts, but also to the country at large, as if the service is not maintained in a proper and efficient manner much distress and suffering will result to the poor and discredit fall on our profession. It is apparent to anyone living in the remote parts of Ireland, where private practice is practically *nil* and the only chance of obtaining a doctor is the knowledge that by the help of a Poor-law appointment he will probably be able to gain sufficient to keep him from requiring the actual necessities of life, it is thus not difficult to see the calamity it would be if the Poor-law Service were to fall into such disrepute that medical men could not be induced to present themselves in sufficient numbers to fill the appointments. Heretofore the natural desire of Irishmen to remain in their own country, if able to obtain a livelihood, outweighed in their minds the advantages of going to England or the Colonies, where they were certain of being able not alone to live well, but frequently to make a fortune as a reward for their professional ability. This has been sufficient to provide a regular supply of able and efficient medical officers for even the most remote and undesirable districts, and to this fact we must attribute the want of attention on the part of the general public and the Government to the well-known grievances and crushing disabilities under which the Poor-law medical officers are known to suffer. It is very easy to understand the position taken up by the general public in this matter, and that they will take no practical interest so long as they can obtain medical men to fill the posts efficiently at as small an outlay as possible to the taxpayers; further, they will refer all responsibility to the Government, who, through the Local Government Board, are expected to be fully acquainted with the management, requirements, and working of the Poor-law Service, and are thus in a position to decide any questions which may arise in the practical carrying out of the details of the several duties. It is clear that the above position is the most natural one for the taxpayers to adopt, and that it is the duty of the Government to see that the service is maintained in a proper manner. I believe the day is not far distant when, if the authorities do not take action in this matter, there will be much difficulty in obtaining properly-qualified officers for the appointments, as the expense now incurred in obtaining medical degrees is much greater than heretofore, and the amount of private practice to be obtained in the country districts is becoming less year by year, owing not alone to the well-known fact that the farming classes have of late years availed themselves to an unwarrantable extent of the free services of the medical officers in their districts, but also that the local gentry are not now in a position to pay their medical attendants as liberally as heretofore. It appears clear to me that as the expenses of the doctors are increasing whilst their emoluments are decreasing —following the natural law of supply and demand—I am justified in coming to the conclusion that this grave view of the position has forced itself upon the general body of the medical profession. This has been fully demonstrated by the fact that the Government has for some years past been frequently approached on this subject through memorials and deputations from several of the most influential of the medical bodies in this country. They have appealed, and, I regret to say, have appealed in vain, to the powers that be for anything like consideration with a view to relief from the most pressing of the well-known and clearly detailed disabilities, but so far, I regret to state, with no practical result. It will be remembered by the members of this Branch that the last occasion on which a deputation was received at the Castle, in 1896, it was composed of representatives from this Branch of the British Medical Association, with representatives of the Irish Medical Association. Then the subject was placed very clearly and forcibly before the Chief Secretary by Sir William Thomson and other speakers. As a member of the Council of this Branch I was present, and heard the polite reply of the Chief Secretary, which conveyed to my mind that he was clearly of the opinion that the Government would make no movement at that time. When it became known that the Government intended to introduce a Local Government Bill for Ireland, the medical profession hoped that the opportunity would be taken of relieving the most pressing of the grievances, and the advent of the Bill was awaited with interest, particularly as the matter was so freely ventilated by the British Medical Association in 1891-92, when the Parliamentary Bills Committee caused a memorandum, prepared by Sir William Thomson, indicating the special abuses which existed, and setting out proposed remedies, to be circulated amongst the principal members of the House of Commons. This document was a *précis* of hundreds of answers to set questions received from dispensary officers throughout Ireland, so could not but convey the generally recognised opinion of those gentlemen. Any person reading it must be struck with the great necessity which exists for reform in many of the most vital of the regulations under which the work was carried out, and that, unless some more practical arrangement was arrived at, and definite rules were formulated, the service must deteriorate, and as a natural consequence great suffering would be entailed on the poor. The requirements so well set out in this document are now so well known, through the report recently issued by the Irish Medical Association, that it seems hardly necessary for me to do more than indicate the most important of them, namely, inadequate payment, annual holiday with payment of substitute, definition of a poor person (under the Act), the red ticket question, superannuation on adequate pension, increase of payment with length of service, or an arrangement whereby the holders of poor districts would be removed to the better districts as vacancies occurred. On perusing the new Bill to see which, if any, of those questions have been dealt with, one cannot but feel disappointed on finding that practically nothing has been done to relieve the pre-existing state of affairs, and that, as far as the Bill is concerned, the Poor-law Medical Service is left severely alone, a careful study of the Bill, showing that there is no real change, except in as far as Section CXVIII gives a very small proportion of them a pension on the Civil Service scale as a matter of right. Of course it is a comparatively small number of men who will have reached 60 years and served full time at least twenty years when "the appointed day" comes, but no mention is made of the others not equally fortunate, even those who have served such time as would entitle them to a pension if they were Civil servants, but have not reached 60 years of age, and are not incapacitated from duty by permanent infirmity of mind or body, and thus are not entitled to the benefit of Section CXVIII, because if they were to retire on the appointed day they would not be qualified for a superannuation allowance by the existing law. Outside this Bill the other Acts of Parliament dealing with the question of superannuation, such as the Local Officers' Superannuation (Ireland) Act, 1869; the Medical Officers' Superannuation (Ireland) Act, 1869; and the Union Officers' Superannuation (Ireland) Act, 1865, leave it optional with the Board of Guardians to give or withhold a pension. Thus it appears that, with the exception of superannuation, none of the burning grievances of Poor-law medical officers have been touched by the Bill, and this solitary exception has been dealt with in a very inefficient manner. From this it will be seen that very little indeed can be expected from this new Bill, and that appeals to either the Government or to the district or county councils can, judging from former experience, be of little avail, particularly as under this Bill the expenses of Government, as is generally conceded, will be greater than before its introduction, so every effort will be made by the district and county councils to keep down the taxation. It therefore behoves us to see in what manner we can obtain redress, it being apparent that we can neither look to the Imperial Government or to the officers of the Local Government Board, and in my opinion we must look to ourselves. The medical officers of the Poor-law

Service in Ireland must combine, and assist those who are ready and willing to give them all the help in their power, and they have two powerful organisations to further their interests in the British Medical Association (as represented by this its Dublin Branch) and the Irish Medical Association, backed as they are by the sympathy and approval of the whole medical profession in Ireland, who know so well their needs, and approve so fully of their efforts to obtain redress. It appears to me, seeing how futile all efforts made to obtain redress by approaching the governing bodies have heretofore been, and that while those bodies can advance such arguments as I have already alluded to, we can expect nothing, that the proper way to approach the question is by having the junior members of the profession and the students made fully aware of the treatment which will be meted out to them as Poor-law medical officers. It must be pointed out that the £100 or £150 a year which they obtain from such appointments will not, when the necessary expenses of working their districts are taken out of it, suffice to keep them in more than the necessities of life as single men, and will be quite insufficient to do even this when they marry; and further that as the expenses of life become greater year by year they can look to no increase in their income, and that even after a life of toil and self-abnegation for others, they will find as their powers of performing work lessen they will be cast aside without even a meagre pension to allow their declining years to be spent in that ease and comfort they have so well earned. We hear much about old-age pensions, and I would like to know what profession, or trade, or occupation deserves more from the hands of its fellow men, or whose members should have a prior claim to those of the medical profession. While it can be proved such good openings are to be found in England and elsewhere, that they can confidently count on being able to provide for themselves and their families. That this is the way to obtain redress most speedily I am assured, and would instance what has occurred in another branch of the profession; I allude to the Army Medical Service. As is well known, the authorities were approached by the leaders of the profession for years, but as there were plenty of candidates to be obtained, a deaf ear was turned to their various memorials and deputations, assisted, even as they were by the powerful aid of the British Medical Association, until the students and young medical men were informed of the disabilities under which they would have to serve, when, although the emoluments and status were much better than the Poor-law Medical Service, and a good pension was also given, the number of candidates fell off to so great an extent that the Government were forced to redress the more pressing grievances, and a good day for army medical officers would seem to be now in the near future. With this example before us, I cannot help believing that our road is very plainly indicated, particularly as the expenses incurred in entering the profession are now so much greater than formerly; there must result a difficulty in obtaining candidates to fill appointments in any inadequately paid service. That this has already commenced to be felt, I would draw attention to the fact that the pay for assistants in English practices has increased within the past three years to from 25 to 50 per cent., thus presenting a favourable opening and good remuneration for Irish students. Let it therefore be our object to obtain the widest circulation to our students and newly qualified men of information as to the openings in the profession, holding out prospects of advancement and emolument, and thus enable them to compare such prospects with what they are offered under the Poor-law Service as at present constituted. I am confident that the result of this action would be to reduce the present competition for appointments in the Poor-law Service, and by bringing the Government, county and district councils face to face with an open competition, induce, or if necessary compel, them to make their appointments more attractive, and also by pointing out lucrative positions tend to increase the number of students attending our universities and colleges, and in many instances lead our fellow countrymen to positions of the highest honour and dignity in their profession.

Medical Students in Italy.—According to official statistics lately published the total number of medical students in the Italian Universities in the academic year 1897-8 was 6,878. The number in 1893-4 was 6,521.

THE NEW CLINICAL INSTITUTE IN FLORENCE.

[From an Occasional Correspondent.]

The Opening Ceremony.—Address by Professor Grocco.—Description of the Clinical Buildings.—Their Equipment.—A Pasteur Institute.—Proposed Post-Graduate Classes.

The new buildings of the Medical Clinic in Florence, which owe their existence mainly to the exertions of Professor Pietro Grocco, Director of the Medical Clinical Department of the Royal Institution of Higher Education, were opened recently, and the ceremony was attended by the Prefect, the Syndic, and a large number of the leading residents in Florence.

Professor Grocco delivered an address, in which he said that his earnest appeal to the authorities, made just six years ago, at the time of his own appointment, had met with a favourable reception. The Boards, both of the school and of the hospital, had been ready to undertake the necessary works, and he had himself examined what had been done elsewhere—both in Italy and abroad. Now, when the work was in all essentials finished, it might with truth be said that the new Medical Clinic of Florence, in point of size and arrangement, and of equipment, was second to none in Italy, and was in line with the best abroad.

Professor Grocco then proceeded to describe the buildings, which are on two storeys, contain two principal wards and two series of smaller wards, which will permit a rational classification of patients in the interests of clinical study and of treatment. About 70 beds are allotted to the clinic, with the power of selection from among all the patients in the hospital—about 700. The principal laboratory is divided into several sections—bacteriological, chemical, microscopical. It contains also an experimental room, a dark room for photography and spectroscopy, a fine library, rooms for the managers for the storage of the more costly and delicate instruments, a large lecture theatre and smaller ones for demonstrations after the clinical visit; numerous smaller rooms will serve for electrodiagnosis and electrotherapy, for hydrotherapy, from the most minute local douche to the most complete simple or medicated vapour baths, and for electrical baths; also for pneumotherapy, for drawing, for radiography and fluoroscopy. Every section is fully furnished with all that can be required for clinical illustration from the point of view either of diagnosis or of treatment.

The Clinical Institute has with the new year begun the publication of a weekly journal. The library, which is only four years old, contains already more than 60 journals, including the British Medical Journal, and more than 1,100 volumes.

In connection with the Institute Professor Grocco has on his own personal initiative established an institution for the treatment of rabies. "I am rejoiced," Professor Grocco said, "that this building is finished, is ready so that we can at once commence the special treatment which we owe to the grand and beneficent genius of Pasteur. In truth, it was not fitting that our highly civilised and philanthropic Tuscany should be without such an important means of cure; for eleven long years it had been talked about, but not till now been realised. Confident that I should not rely in vain on public and private support, I undertook, alone, this humanitarian enterprise, and fonder of deeds than words, I devoted myself to its accomplishment. If it is true that 'Well begun is half done,' yet it must be admitted that good luck attended me. In fact, a munificent citizen, Signor Leopoldo Budini, has built and fitted the Pasteur Laboratory at his own expense. And in response to a fresh and private appeal to his generosity made by a distinguished and most excellent lady, the Senator Count Peter Bastogi sent me yesterday £200 for the service of the Pasteur Laboratory. It is but natural, gentlemen, that I should offer to these generous donors the most heartfelt thanks. In a report made in 1887 to the Provincial Sanitary Council, the late Professor Michelacci expressed the opinion that a Pasteur Institute, if erected in Florence, would cost annually about £300 or upwards. Now our calculation is that as we have the Institute in the bosom of the Medical Clinic, we can, without any deviation from the strictest scientific requirements, support it for £180 per annum.

"Six years ago, gentlemen, the Medical Clinic was reduced to two hospital wards and to three laboratory rooms, the scientific equipment of which was of less value than £80. With the progress made in six years we may then be content. And my dream will be realised when we have a section of mechanico-therapy or medical gymnastics, which will be, I hope, in a couple of years, and when we are in a position to prepare curative serums on a large scale, and first, diphtheritic serum. In fact I am already making preparations to secure this latter object, and hope to be able to do so before this year is out.

"It will be henceforth an advantage to the clinic to have from now, not one assistant and two clerks to direct in these studies, but two assistants and sixteen clerks. The number of young doctors who seek to be inscribed on the list of voluntary clerks goes on increasing, so much so that this year I have been obliged to refuse the services of more than thirty who have come here from every part of Italy.

"It is an advantage to the clinic and a moral satisfaction to us that we now command such accommodation and such assistance that I can add to my clinical teaching the services of three gratuitous teachers. We can in consequence give our students four practical lessons a week, two in clinical chemistry, and two in clinical microscopy and bacteriology."

Professor Grocco then said that the Minister of War annually assigned to the Clinical Institute a medical captain as honorary assistant, and that the arrangements of the Institute had received the recommendation of many foreign physicians. It was the duty of the medical faculty of Florence not only to prepare students for their diplomas, but to perfect them when qualified. This double mission was indicated by its title—Institute for Higher Education; hence, what had been done for the Medical Clinic and for physiology should be done also for surgery, so that all the chairs should be equal to the responsibility of giving post-graduate courses. Professor Grocco concluded by appealing to the students, and pointing out to them that, if the responsibilities of the teacher increased in proportion to the increase in the operations of his school, so also did the obligation of the students to study more strenuously in proportion to the increased advantages placed at their disposal.

MEDICAL SICKNESS AND ACCIDENT SOCIETY.

THE usual monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Society was held at 429, Strand, London, W.C., on January 27th. There were present Dr. de Havilland Hall (in the chair), Dr. J. B. Ball, Mr. J. Brindley James, Mr. F. Swinford Edwards, Dr. Walter Smith, Dr. Alfred S. Gubb, Dr. W. Knowsley Sibley, Mr. Edward Bartlett, and Dr. Francis J. Allan.

This meeting being the first of the year, the Committee, in accordance with their usual custom, examined a series of special reports on the condition of the "chronic" cases, that is, of those members who appear to be permanently incapacitated either from disease or accident. The half-pay of the Medical Sickness and Accident Society is continued without any deduction until age 65, and accordingly those members who are permanently incapacitated from their professional work are entitled to an annuity—usually of one hundred guineas a year—until they reach that age, should they live so long. It is felt that the supplying of these permanent provisions is the most important function of the business, particularly in view of the fact that in no other society can members of the medical profession obtain the same benefit; and the Committee have therefore always devoted a great deal of attention to the list of chronic illnesses. Every year as the members grow older the list lengthens, and although at the time the Medical Sickness and Accident Society was first started there were some who felt that the provision made by the rules for permanent illness might turn out to be on too liberal a scale, the large reserve fund which the Society has now accumulated is an ample guarantee that no reduction of this most important benefit need be made in the future. The list of ordinary claims showed no special features, and was lighter than at the same period of last year. A satisfactory number of new members join the Society each year, and the number of lapsed benefits is smaller than usual.

Prospectuses and all particulars can be obtained from Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

REICHARDT FUND.

DR. G. H. SAVAGE (3, Henrietta Street, W.) writes: Dr. Goodhart and I have to acknowledge the receipt of the following contributions on behalf of this fund. We beg to remind the very many members of the profession who are interested in the home treatment of mental disorders that very few have so far contributed in aid of this fund.

	£	s.	d.		£	s.	d.
Dr. James F. Goodhart ...	10	10	0	Dr. Andrew Ellis Wynter ...	1	1	0
Sir John Williams, Bart. ...	5	5	0	Miss A. Helen A. Boyle, M.D.	1	1	0
Henry T. Butlin, Esq. ...	5	0	0	Dr. F. M. Corner	1	1	0
Herbert H. Page, Esq. ...	3	3	0	Dr. B. H. Roots	1	1	0
Dr. Albert E. Tebb	2	2	0	Dr. C. H. Broadhurst ...	1	1	0
C. B. Lockwood, Esq. ...	2	2	0	W. B. J.	0	10	6

A GENERAL HOSPITAL FOR HAMPSTEAD.

A MEETING was held on February 5th at the house of Mr. Wightman, with the object of erecting a hospital at Hampstead which should take the place, though not the actual site, of the present inadequate building. Sir RICHARD TEMPLE, Bart., F.R.S., occupied the chair, and, having asked the Hon. Secretary to read a letter of approval from Sir Henry Burdett, called on Mr. Edmund Owen, as Consulting Surgeon to the hospital, to show why a new building was necessary.

Mr. OWEN said that he greatly regretted the absence of Sir Henry Burdett, and especially so because he had been thrust forward to fill, to the best of his ability, the gap which Sir Henry's unavoidable absence had caused. He then showed how unsuitable was the site of the present building, and how inadequate it was for the reception of patients and for the housing of nurses. He wished to correct an impression which had got abroad that the Committee proposed to erect a large and expensive structure: and he gave positive assurance that the Committee, who had asked him to speak for them, intended to proceed with the utmost regard to economy. He thought it somewhat unfavourable reflection upon Hampstead that a rich and influential district of 70,000 inhabitants should be content to depend upon Paddington, St. Pancras, and Kentish Town for the chief part of its hospital accommodation.

Sir SAMUEL WILKS, on being called upon by the Chairman, said that he, as a Consulting Physician to the Hampstead Home Hospital, could confirm much of what Mr. Owen had said, and he urged those present to do their best to erect at the earliest possible moment a hospital in some central and appropriate part of the parish which should be equal to all demands. He was strongly in favour of each suburban district having its own hospital, and he could assure all those present that poor people had neither the ability nor the inclination to make long journeys in search of the hospital relief which they might greatly need.

Mr. EDWARD BOND, M.P., spoke in favour of the scheme.

Mr. FIGGIS said that if Hampstead was assured of the need of the hospital—and he thought that there could be no manner of doubt as to that need—its inhabitants would put their hands in their pockets and carry the scheme through with the same energy, good-will, and success which they had shown in raising the money necessary to acquire the Golder's Hill addition to their Heath.

In bringing the meeting to a close, Sir RICHARD TEMPLE said that Hampstead must bestir itself in the matter, or sites which were now vacant and suitable for the new hospital might pass out of their reach for ever.

MEDICAL STUDENTS IN SWITZERLAND.—The number of medical students in the several universities of Switzerland during the current semester is as follows: Zürich, 360 (234 male, 126 female); Geneva, 297 (196 male, 101 female); Bern, 240 (170 male, 70 female); Lausanne, 158 (111 male, 47 female) and Basel, 126 (124 male, 2 female). The total number of medical students in Switzerland is, therefore, at present 1,181, of whom 346 are women. Of this number, 614 are Swiss; of these, 25 are women. The number is 1897-98 was 1,144, of whom 307 were women.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1899.

SUBSCRIPTIONS to the Association for 1899 became due on January 1st, 1899. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, FEBRUARY 11TH, 1899.

THE GOVERNMENT AND REVACCINATION.

WE publish this week the resolutions regarding vaccination arrived at by the Council of the Association at its recent meeting. A copy of the resolutions has been sent to every member of Parliament. They refer to two closely related questions, a Revaccination Bill and the conscience clause. In the closing debate on last year's Vaccination Bill in the House of Lords Lord Lister indicated, and on behalf of the Government Lord Harris promised, that the Government would favourably consider a Revaccination Bill for the session which has now just begun. This promise is referred to in the resolution, and it is then pointed out that as a result of the operation of the conscience clause an Act for promoting revaccination is now distinctly more necessary even than before. To all who have any faith in vaccination as a preventive of small-pox, and who have observed the proceedings which have taken place under Section 11 of the Act of last year, the increased and increasing need for systematic revaccination cannot but be obvious.

As a result of false teaching by opponents of vaccination, and of legislation which is alike slovenly and incomplete, thousands of children are being prepared for sacrifice on the altar of small-pox. The point with regard to last year's Bill on which the profession was most urgent and unanimous was that by means of legal provision for systematic revaccination the evils naturally resulting from neglect of primary vaccination should, as far as possible, be provided against; that where unvaccinated children might be fortunate enough to reach 10 to 12 years of age without suffering from small-pox, their parents should again have the duty of providing against future risk brought formally before them, and that where vaccination had been performed in infancy the need for repetition of the protective operation should similarly be pressed. These views were urged on the Government without apparent effect; but at the last moment, when the House of Lords was about to reject the conscience clause for a second time, Lord Lister and Lord Harris prevented a Ministerial defeat by throwing out promises regarding a Revaccination Bill for next session. Lord Lister spoke as follows: "Personally, I should like, if the Bill could be withdrawn this year, and brought in again next year, with this question of revaccination attended to. . . . . But I fear that is a hopeless suggestion. However, as regards revaccination, the members of the Government who have been approached on the subject have given us good reason to hope that a Bill dealing with revaccination may be brought in next session. Such a Bill would, I think, be sure to pass the House of Commons, the great majority of which, however they may differ on other questions, are at one as regards the importance of revaccination. The medical members of Parliament are certainly at one on this point. The Bill would therefore readily pass, and by introducing it the Government would do untold benefit to the community. The confident hope that the Government will see their way to take this course next session makes me the more readily acquiesce in what I confess is a tremendous experiment."[1] This "confident hope" was immediately strengthened by a speech by Lord Harris on behalf of the Government. He said "Lord Lister had referred to the fact that the Government would consider the possibility of introducing a Bill next year with the object of encouraging revaccination. If the noble lord had not indicated that fact, he had authority to state that the Government were prepared to consider during the recess whether it would not be possible to bring in such a Bill next session." The motion of Lord Ailesbury, who objected both to the conscience clause and to the omission of revaccination, was then negatived, but only by the comparatively small majority of 55 to 45.

Notwithstanding these facts, the Queen's Speech contains no single word on the subject of vaccination, either as regards the discredited conscience clause, or as regards a Revaccination Bill. It is quite true that in the course of a session Bills may be introduced and passed which have found no place in the Queen's Speech. But what excuse can there be for making no reference to a subject which was practically continued from last session? The matter will be brought before Parliament, and the statements of Ministers will be awaited by the profession with the profoundest interest. In the meantime it would be unfair to assume that no satisfactory announcement will be forthcoming, or that there will be any attempt to ride off on some verbal quibble. If the Government intend to tell us that they have carefully gone into the question, and have concluded that a Revaccination Bill is at present unnecessary or undesirable or inexpedient, then we are bound to say that we believe it to be utterly impossible for them to make out a good case for any such finding. But, as we have said, it would be unfair to assume that they intend to adopt such an attitude.

THE DAWN OF MEDICAL SCIENCE IN RUSSIA.

RUSSIA was the last country in Europe to receive the light of medical science, and, according to German writers, it owes its scientific conversion almost entirely to Germans. This has been repeated so persistently and so positively that the Russians themselves have come to believe it. All history is, however, being rewritten in these days, and the myth of the medical evangelisation of Russia by the Germans is going the way of other myths. Mlle. Inna Cheboldaïeff, a young Russian lady, who took her doctor's degree at Paris a few months ago, has shown in her thesis that up to a comparatively recent period French influence was preponderant among students of medicine in Russia. Perhaps, in recognition of the union of hearts which is supposed to bind Russia and France, the lady doth protest too much. For instance, it was neither to France nor to Germany, but to England, that Russia owed the introduction, first, of inoculation, and afterwards of vaccination; and one or two other unconsidered trifles of English manufacture, such as chloroform and antisepsis, have from time to time been imported into the dominions of the Czar.

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[1] BRITISH MEDICAL JOURNAL, 1898, vol. ii, p. 430.

[2] De l'Influence Française dans le Developpement de la Science Médicale en Russie. *Thèse de Paris.* 1898.

We are more interested, however, in the glimpses which Mlle. Cheboldaïeff gives of the state of things that existed in Russia when rational medicine was not. In the fifteenth, sixteenth, and seventeenth centuries physicians were as rare in Russia as astrologers at the present day in this country. They were always foreigners, and were generally attached to the person of the Czar. If they failed to cure their redoubtable patients they were only too likely to pay the penalty with their lives. It is recorded that in 1493 one Leo, a master leech, was beheaded by order of the Czar for having unskilfully treated the heir to the Crown. Ivan the Terrible set a better example; his physicians, Bomelius, a Fleming, and James Frencham, an Englishman, sent by Queen Elizabeth at his request in 1581, stood high in his favour. The Czars Fedor, Boris, and Alexis also placed great trust in their doctors, whom they often employed on diplomatic business. But the nobles, the clergy, and the people looked upon the doctors with the darkest suspicion. If the Czar out of his tender regard for the well-being of some favoured courtier sent him his physician in illness, the *boyar* would beseech his royal master as a special grace that he might not be treated by a doctor.

A seventeenth-century historian, after praising the Czar Boris to the skies, is fain to allow that "God had given him great defects; thus his heart was soft towards physicians; he was despotic," and so on, through some minor blemishes on his character. We have the testimony of Captain Margeret, who wrote an account of a visit which he made to Russia in 1602, that the people looked upon medicines with superstitious abhorrence. Their therapeutics consisted in a generous dose of brandy, followed by a mixture of gunpowder with powdered garlic, the treatment being completed by a hot bath. Sylvester, one of the priests about Ivan the Terrible, in describing "how a Christian should treat himself in all diseases and pains," says that recovery can be brought about only by prayer, fasting, almsgiving, the avoidance of sin, and submission to the commands of his ghostly fathers. The worthy pope proceeds: "And he who without decency or order fears not God and fulfils not His will, who does not observe the traditions of His Church and country, who neglects the Church of God, the chants of the Church, the rules as to fasting, prayer, and all divine service, such a one cannot get well. Nor can he get well who eats and drinks without moderation, falling into sottishness and gluttony, without observing seasons of fasting, and the rules of married life, and who gives himself up to songs, which are the work of the Devil, to dances, games, music, the chase, horseracing—all things agreeable to Satan—and who adds thereunto all manner of sorcery, the reading of books of magic, astrology, or noxious herbs"—medicinal simples being doubtless included in the latter term.

The introduction of medicine into Russia was one of the many reforms carried out by Peter the Great. He encouraged foreign physicians to settle in Russia; he established pharmacies; he founded hospitals in which provision was made for the training of pupils. Medical degrees were conferred for the first time in Russia by the Moscow school in 1723. Peter the Great was personally greatly interested in medicine, and he even threw himself into the practice of surgery with characteristic ardour. He could bleed, draw teeth, and open abscesses, and he worked for a time regularly at practical anatomy and operative surgery. He used to carry about a small dressing case in order that he might be prepared to deal with any surgical emergency that arose. He insisted on being kept informed of all the interesting cases, operations, and necropsies in the hospitals of St. Petersburg. He sometimes operated with his own imperial hand. Thus it is on record that he operated for a diffused suppurative condition of the leg in a merchant called Thomas. On April 27th, 1723, he tapped the wife of the Dutch merchant, Borst, who was suffering from dropsy. Peter was, in fact, the first Russian who performed paracentesis.

THE INEBRIATES ACT, 1898.

SOME disappointment has been felt that though the Inebriates Act of last year became law on January 1st, 1899, it cannot have any practical effect for some time yet, because the regulations must lie on the table of both Houses of Parliament for four weeks; there can be little doubt, however, that the delay will prove advantageous in the long run. The remedial provisions of the Act are a feature so novel in British jurisprudence that to a considerable extent the new departure partakes largely of the nature of an experiment, the conditions of the successful working of which must be carefully studied. So difficult has it been to ascertain the probable number of criminal inebriates likely to be committed to a reformatory, that the Home Secretary, though various prisons have been examined and reported on as more or less suitable for the purpose, has had to confess that he has not been able to obtain such a forecast of the number of convictions as would warrant him in applying to the Treasury for the establishment of a State Inebriate Reformatory. This is to be regretted, as unremitting State supervision is of value in safeguarding the liberty of the subject, and as ample funds are needed for the foundation and maintenance of a model institution. Sir Matthew Ridley, however, holds out the hope that a short experience of the working of the Act will enable such an estimate of the probable number of convictions to be formed as will justify him in an application to the Treasury for a building and grounds to be specially designed for the object in view.

This determination on the part of the Home Office practically leaves the carrying out of the Act in the hands of councils and philanthropists, who can establish and maintain certified inebriate reformatories on obtaining a certificate from the Secretary of State. In the interests of the Act and of the inebriates affected by it, we are glad to be in a position to state that the managers of several homes for inebriates have intimated their intention to apply for certification. To the friends of the habitual drunkard, therefore, the nation will owe the consoling fact that the Act will not be a "dead letter."

In the operation of the Act a skilled and judicious medical inspector is an important desideratum, and we congratulate the Government on the excellent choice which they have made in the person of Dr. R. Welsh Braithwaite, who has had considerable experience in the treatment of inebriates, and who is familiar with the features of institution life.

As an encouragement to the managers of certified inebriate reformatories, a weekly grant of 16s. will be paid for each inmate committed under Section I during the period of detention, and of 10s. 6d. for each committed under Section II in a reformatory certified for not more than 100 inmates. There will also be a weekly grant of not more than 6d. a day, at the discretion of the Secretary of State, for inmates out on licence for a period not exceeding three months. These allowances will remain in force for three years from April 1st next. After the expiry of that term a local weekly contribution of not less than 3s. 6d. will be necessary to obtain a Treasury grant. Reasonable expenses of removal from one reformatory to another or to an auxiliary home will also be allowed, if directed by the Secretary of State.

The regulations issued by the Departmental Committee, as well as the Home Secretary's circular to judges and other judicial authorities, breathe a broad and generous spirit. One regulation stands out prominently, owing to its practical character, the regulation that all the officers must be abstainers. This recommendation was laid by the Chairman of the Inebriates Legislation Committee of the Association before the Scottish Departmental Committee on Habitual Offenders. The experience of the Dalrymple Home in England and of Ellikon in Switzerland show the great value of this provision. On no other condition can any institution for the treatment of inebriates have a reasonable chance of success. Some of the leading daily journals have lamented the presumed hardship to the officers of not being at liberty to have a glass of beer even on their holidays; but this plea cannot be allowed to override the conditions essential to a proper administration of the Act.

The regulation requiring a wall and a guarded gate to prevent the escape of inmates has been objected to—we think without reason. In most institutions for inebriates there is a certain small proportion not amenable to moral influence, and all well-conducted homes for inebriates have strict rules for the enforcement of the necessary regulation that no patient is allowed outside the grounds without leave from the superintendent. It is needful only to have such a wall or fencing as will suffice to deter patients from attempting to leave clandestinely.

It is possible that it may be found expedient to increase the rations suggested in the dietary recommended by the Committee, and in other details practical experience may probably render other alterations desirable; but this is provided for by the power of revision of the existing regulations.

PRESENTATION.—On his leaving Grangetown, Yorks, Mr. J. St. John Murphy was entertained on January 28th at a dinner, and presented with an illuminated address and gold-mounted walking stick as a mark of the esteem and respect in which he was held.

NOTIFICATION OF LEAD POISONING.

A MEMORANDUM on the provisions of the Factory and Workshop Acts with regard to poisoning contracted in a factory or workshop has been issued by the Chief Inspector of Factories to all certifying factory surgeons, but as medical practitioners in general have certain duties under these Acts, it will be well again to point out what these are. Every medical practitioner attending on or called in to visit a patient whom he believes to be suffering from lead poisoning, phosphorus poisoning, arsenic poisoning, or anthrax, contracted in any factory or workshop, is required, under penalty, to notify the case forthwith to the Chief Inspector of Factories, unless it has already been so notified, and he is entitled to a fee of 2s. 6d. for so doing. Notification forms have been prepared for the purpose, and are supplied to practitioners on application. The notice should state clearly the name, address, and occupation of the patient; the disease; the factory or workshop at which the patient has been employed, and is believed to have contracted the disease; the name and address of the notifying practitioner, and the date of notification.

Lead is much more used in the arts than either arsenic or phosphorus, and the industrial occupations which have been observed to be connected with lead poisoning make a long list. Among the chief are, in the first place, white, red, orange, and yellow lead works, the manufacture of paints, colours, and glazes, coachmaking, litho and chromo transfer-making, dye works in which yellow chromate of lead is used, and japan and lacquer works. Then there is lead smelting and the manufacture of spelter, shot making, the manufacture of sheet lead and lead piping, and the use of lead foil in various processes, the enamelling of iron plates and letters, the tinning and enamelling of hollow metal ware and cooking utensils, electroplating, and gold and silver refining, brassfounding, typefounding, printing works, plumbing, iron and steel works, the making of files, cutlery, and tools, and electric accumulator works. Last, but not least important, the manufacture of china and earthenware, the glazing of bricks and tiles, and the making and polishing of glass should be mentioned.

Special attention is called in the memorandum to the injurious effect of chronic lead poisoning on the uterine functions; this may be evidenced by disorders of menstruation and a great tendency to miscarriage, even when obvious symptoms of lead poisoning are absent or obscure. Young persons also suffer more than adults, though it is a question whether this greater liability is not due to less careful attention to elementary precautions against lead poisoning than to any special predisposition due to age. With regard to adult males it is pointed out that anæmia, which is comparatively rare in them under ordinary circumstances, is sometimes a symptom of lead poisoning, and in a person engaged in any trade in which lead is used should arouse suspicion, and lead to careful search for other symptoms, such as colic, vertigo, or persistent headache, numbness or impairment of muscular action short of actual paralysis, pains in the joints (especially the knee, elbow, or shoulder), and the blue line on the gums, though this may be absent in persons who are careful to keep the teeth clean. It should also be borne in mind that epileptiform convulsions may be due to lead poisoning. Such attacks, which are most often met with in young women, are rarely seen except among white lead workers, or those engaged in the most dangerous processes connected with china and earthenware. These attacks may begin very soon after the patient has begun to work in lead, and are not infrequently preceded by hysterical symptoms—a fact which should be remembered not only because it may assist in making an early diagnosis, but because it may serve to prevent serious error at a later stage.

Some of the industries which may give rise to lead poisoning, such, as for example, lead mining and some branches of painting, are not carried on in factories, and cases of lead poisoning arising in persons engaged in these occupations are not notifiable. Again, cases in which the poisoning is due to causes other than the industrial occupation of the individual, such as for instance those due to contaminated drinking water, to the use of lead or its alloys in vessels or pipes containing or carrying beer or cider, or of soda-water siphons with pewter or lead valves, or of hair dyes and cosmetics containing lead, or to the consumption of sweetmeats coloured with lead chromate are not notifiable.

In the case of white lead and orange lead works, and in works in which iron plates are enamelled the employers are required to arrange for a periodical inspection, by a duly qualified medical practitioner, of all persons employed, while in the case of manufactories of earthenware and china the certifying factory surgeon must once a month examine all women and young persons employed in certain departments of the works. In either case the medical man making the inspection may, if he sees reason to do so, warn a worker or require abstention from work for a period, the duration of which is within the discretion of the certifying surgeon, and at the same time may or may not, according to circumstances, think it proper to notify the case to the Chief Inspector of Factories.

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COMPANY PRACTICE.

A BILL for the Regulation of Limited Companies figures amongst the measures which the Government, in the Speech from the Throne, signify their intention of bringing in during the ensuing session of Parliament, and, although it is by no means the first occasion upon which some such measure has been under discussion, we believe that this time there is the full intention to push it forward. Our readers will remember that allusion has from time to time been made in our columns to the manner in which a perverted ingenuity has been exercised in using the legal conditions of company incorporation in order to enable persons without registrable qualifications to evade the restrictions to which they would otherwise have been subject under the Medical and similar Acts. The introduction of a measure regulating the proceedings of companies would seem to offer a good opportunity for the insertion of a clause dealing with this abuse. The opportunity—if, indeed, it be one—has not been neglected, for we understand that the small committee appointed by the General Medical Council to endeavour to procure some amendment of the law in this direction has very recently had an interview with the Lord Chancellor. We understand that the interview was on the whole satisfactory, but nothing definite, can as yet be said as to the form which the suggested legislation is likely to take. In the interim report of the Committee, which was laid before the Council at its May session, a certain measure of reticence appropriate to an incompleted negotiation was very properly observed, although a perusal of that report tended to lead to the inference that a short special measure rather than a clause in some more comprehensive Act was at that time in contemplation. But that something will be attempted during the present session there is every reason to hope, and we shall probably have to invite those members of the Association who may be able to exercise influence upon their respective members of Parliament to do their utmost to press for its favourable consideration. It is by individual efforts and by pressure thus brought to bear upon a large number of members that Parliamentary successes are gained. A success scored on a measure of restricted application, such as this, will serve a useful purpose in paving the way to some more comprehensive step in medical reform, both by calling attention to the unsatisfactory nature of the existing state of things, and by preparing and building up public opinion in favour of its amendment.

THE FALLING AWAY OF THE CONSCIENTIOUS OBJECTOR.

IT will be remembered that Oldham achieved a bad pre-eminence recently with its 27,000 conscientious objectors, to whom an antivaccination mayor gave certificates on the production of a form ready filled up which could be had for one penny. It would seem that some of these certificates of exemption must have been obtained out of pure lightness of heart, for the curious result of all this expenditure of pennies, and all this burning of the midnight oil by the mayor and his brother magistrates, has been that the number of children vaccinated in Oldham has enormously increased. The vaccination officer during January, 1899, received 200 medical certificates of successful vaccination, and 40 directing postponement for a time. In January, 1898, he received only 10 certificates, and in the whole of the year 1897 only 183. The experience of the public vaccinator has been even more curious, for he has found that a large proportion of the children he has had to vaccinate have been the offspring of "conscientious objectors" who had obtained certificates, but had omitted to send them to the vaccination officer. Not only did these parents not object to the vaccination of their infants, but they voluntarily submitted their elder children to vaccination at the same time. Burnley is another union in which the conscientious objector appeared to abound, for it was reported that 8,000 certificates had been obtained by conscientious objectors. The union embraces not only the county borough of Burnley, but also the boroughs of Colne and Nelson, together with no fewer than 24 other townships, and has altogether a population of upwards of 200,000. This shows that the proportion of conscientious objectors in the population is not so large as might have been assumed; but about one-quarter of those who actually did obtain certificates of exemption have not taken advantage of them, for we are informed that in the magistrate clerk's office there are now more than 2,000 certificates of exemption which have not been applied for. As the certificates must be handed to the vaccination officer within eight days, this batch of 2,000 is now useless. The explanation suggested for the sudden change of mind in so many conscientious objectors in Oldham is that they had taken alarm at the immense number of unvaccinated children in the union, but whether this be so or not, the facts as stated appear to show that their objection was not very deeply rooted in their consciences.

THE MEDICAL ARRANGEMENTS AT THE MANŒUVRES.

IN the report on the manœuvres on Salisbury Plain (issued as a Parliamentary paper) the Field-Marshal Commanding-in-Chief says that the health of the troops was good, the casualties from heat and fatigue were few, and sickness from other causes small. Of the Northern Army, 2.3 per cent. were transferred as sick to the base hospital, and of the Southern Army 3.21 per cent.; but in the latter case the time occupied by the "drills" is included. In the Northern Army there were 35 cases of sunstroke, and 20 of exhaustion; in the Southern Army, 41 of sunstroke and 38 of exhaustion. Owing to the absence of a large portion of the Royal Army Medical Corps in Egypt, the medical *personnel* was reduced to the lowest practicable limit (in an appendix it is given as 23 officers and 215 men Royal Army Medical Corps). Lord Wolseley considers that, had the sickness been greater, the strain upon the medical resources would have been greater than they could have borne. The medical staff of the army, his lordship says, "requires augmentation." Among the points to which the experience of the manœuvres directs attention are: (1) The organisation of the medical bases. (2) The transfer of the sick by rail from the field hospitals to the base; a special train, the Commander-in-Chief is of opinion, should be run daily, and suitable railway accommodation provided. (3) The design and provision of railway ambulance trains for home defence requires attention. Further, it is pointed out that (4) more than one medical officer is required for the efficient care of an infantry brigade, and a tent should be furnished for the inspection of the sick. (5) A special pattern of light ambulance is desirable to accompany mounted troops. The arrangement by which an infectious ambulance was kept at the Salisbury railway station ready for use anywhere in the manœuvre area was a wise precaution. Major-General Luck, commanding the cavalry division, places on record in his report that "the ambulances at present in use are unsuitable for moving injured men over rough ground." One of the men who had sustained a severe compound fracture of the leg had to be carried on a stretcher by fatigue parties to Porton, a distance of six or seven miles, because the medical officer considered that "the suffering caused by the jolting of the ambulance might have so aggravated the injury as to render amputation of the limb necessary." The grand total of the army operating at the manœuvres was 1,975 officers and 45,599 men, or, altogether, 47,574 of all ranks.

SMALL-POX IN A NEW LIGHT.

THE name of M. Drumont, the editor of the *Libre Parole*, is chiefly known in this country in connection with that latest Asian mystery, the Dreyfus case. But he apparently poses as an authority on other peccant humours besides political passion and religious rancour. Not long ago he favoured the world with his views on small-pox and vaccination. He holds that Edward Jenner was one of those who have wrought most mischief to their fellow men. This of course is only what your common or platform "anti-vack" is always telling us. But M. Drumont's charge against the discoverer of vaccination is not that he introduced a new disease or a new poison, but that he robbed mankind of a most valuable remedial agent, to wit, small-pox! "Small-pox," says this new Daniel of pathology, "has never been a disease. It is an admirable effort of the organism—a spontaneous operation of Nature—which violently rejects, expels, and deposits outside the evil principles that are in the body. It is a flowering, a blowing, a sublime crisis. Consider," he adds, "the signs presented by croup, typhoid fever, pulmonary phthisis, and you will see that they are only manifestations of small-pox turned inwards." We gather further that the "caustic matter" of small-pox in its travels about the body produces here a cancer, there meningitis; it is the cause of the increase of insanity and suicide. We should have thought, in our scientific simplicity, that the mere possibility of such dire consequences from the "turning inwards" of small-pox afforded some justification for an attempt to keep it out altogether. But M. Drumont has a logic as well as a pathology of his own. He accepts modern teaching so far as to admit that there have always been bacilli; but his view is that in the good old days before Jenner small-pox played in regard to these organisms the part which Cromwell played to the Rump Parliament. Small-pox is, in fact, if we are to believe the oracle of the *Libre Parole*, the most useful scavenger of the human system; beside it, as a "blood purifier," sarsaparilla must hide its diminished head. M. Drumont will, we are sure, agree with us that if small-pox is so successful in expelling evil principles, France at the present moment would be likely to derive considerable benefit from the "sublime crisis" of a purifying epidemic. It is true he might not agree with us as to the evil principles which require to be expelled, but that is a detail.

AN APPRECIATIVE CRITICISM.

IN a recent issue the *Scotsman* deals, under the heading of Science and Nature, with the Modern Doctor after a fashion which practically identifies that important individual with science, while it regards the rest of humanity as representing for by far the most part a somewhat unregenerate nature. Yet the spirit of our contemporary's lecture is not unfair, nor its statements beyond the truth, while the matter of its article is eminently to the point; and if the public at large could be persuaded to accept and to follow out its teaching, none would ultimately be more benefited and more grateful than the public itself. We should acknowledge with proud humility our indebtedness to every writer who describes in generous and honouring terms the members of a profession in regard to which the term "honourable" is applied too often as a vague and empty epithet; for it sets before us—from outside as it were, and, therefore, the more clearly—a standard which our conscience recognises, and thus helps to strengthen our own efforts to attain it. If we must venture to criticise, it would be in the direction of submitting that to insist upon externals as the apparently necessary evidence of knowledge is, unintentionally, to do injustice to those members of the profession who, despite their wisdom, yet differ little outwardly from the majority of their fellow men. It is not absolutely requisite that the wise physician, the clever surgeon, or even the high priest of hygiene himself should be "pale faced, earnest—scorning the common pleasures of existence." Best indeed for him that he scorn nothing that is not evil; and he may not honestly scorn to study that; he needs must do so in the interests of those who suffer from it. In his terse description of the contrasts which the scientific advances made during the last ninety-nine years have imposed on the medical practitioner of to-day as compared with his remoter predecessor, the writer is happy, and fair to both. His summary of the duty of the lay public in regard to medicine, and of the abuses which neglect of this duty fosters, is admirably to the point: "In this matter the public has a great responsibility laid on it which it does not always realise. It has the power at once to put down quackery by not buying the quack's drugs. No man who advertises himself or his drugs is a trustworthy man. The harm done to the weak, the credulous, and the nervous by quack medicines and the lying advertisements of their vendors is enormous." Truly nowadays it is the public which pours medicines of which they know little—save that they bear a Government stamp—into bodies of which they know often only that little which makes for danger. Still, it might be argued that, were mankind imbued with implicit faith in their doctors, such a condition of things might prove for the science of medicine as dangerous as the complete absence of an Opposition would be to a Government. A weighty truth underlay the half-ironical remarks addressed by a valued teacher to his class: "You will find," said he, speaking to some of his recently-qualified pupils, "that your patients will fall, broadly speaking, into two great classes: there will be those who believe in you implicitly—that is not always the same thing as having confidence in you—and those who do not believe in you at all. The former are extremely pleasant folk to have to do with, but you will learn much more from the others."

THE BRITISH MEDICAL ASSOCIATION AND THE PREVENTION OF TUBERCULOSIS.

The General Secretary of the British Medical Association has received many appreciative acknowledgments of the Report on Tuberculosis recently issued by the Council. Several of the town clerks to whom it was sent give practical evidence of their sense of the value of the report by following the example of a celebrated parochial character, and "asking for more." Thus, the Town Clerk of Winsford, Cheshire, writes: "Would you mind sending me fifteen more copies, so that I can send one to each member of our Council, and to our medical officer of health?" The Town Clerk of Rhyl writes: "May I trouble you to send me half a dozen copies? if required I will pay for them. It is most excellent and useful report." The Town Clerk of Bootle writes: "The Council of this borough are promoting a Bill in the present session to obtain the clauses recommended by the report with reference to tuberculous cows and milk. Your report will therefore be of considerable service to me, and if I could obtain half a dozen copies I should be very glad to pay for the same." The Town Clerk of Wednesbury writes: "I shall be glad if you will forward me sixteen copies of the Report on Tuberculosis issued by your Council, when I will send a copy to each member of the Town Council of this borough. It is the only way of bringing the facts home to each individual member." These letters are gratifying, not only as affording proof of appreciation of the efforts made by the Council of the British Medical Association to arouse public interest in the prevention of tuberculosis, but as showing on the part of local authorities a praiseworthy desire for enlightenment as to the means of abating the scourge. The report can be procured at the offices of the British Medical Association at a nominal cost.

THE IRISH LOCAL GOVERNMENT BOARD AND DISPENSARY DISTRICTS.

Some excitement is arising in Ireland regarding the rearrangement of several dispensary districts under the new Local Government Bill, and protests are already numerous against some of the changes proposed. It is, of course, plain that where as at present some districts are portions of two adjacent counties, a change must be carried out so as to make the limiting line of a county continuous. But care must be taken that in the rearrangement too much work is not given to the medical officer, and that the convenience of the applicants for medical relief is secured. In Athlone Union the guardians do not agree with the proposals of the Local Government Board, and they have passed the following resolution:

> That considering the great work there is for a doctor at present in the town, that one doctor would not be able to discharge the duties of the proposed extended area, the guardians would suggest the constitution of Athlone West Urban into a separate dispensary district; portion of the doctor's present salary to be allocated to it. This district to be called No. 1; and Athlone West Rural to consist of Clonown, Crannagh, and Drumlosh constituted District 3, leaving the Urban District No. 2.

Upon this it is observed: "The effect of the division of the Urban Districts would be to retain the two medical officers in town, and constitute a third rural area, without incurring further expense. The adoption of the guardians' proposal is of the highest importance, and is considered by the guardians and medical men a much better arrangement than that proposed by the Local Government Board, and an arrangement to meet the case of other towns, such as Drogheda, similarly situated." In the Urlingford Union one of the rearrangements has evoked a strong protest from the inhabitants and ratepayers, and the guardians have passed a resolution in which they say, "We have on former occasions protested strongly against the reduction of our medical staff, and we protest now against the arbitrary and unconstitutional effort by the Local Government Board to override the expressed wishes of the people and their representatives, and we call upon them to refrain from making any reduction in the medical staff of the union." It is pointed out that a poor person may in this case have to travel as much as twenty miles for medical relief, and the interpretation of the Act is challenged. In many cases where as a consequence of these changes the office of medical officer appears unnecessary, the incumbent is relieved of duty, and is to be compensated in such proportion as may be agreed upon. This compulsory retirement will in some instances be a great hardship.

THE SMOKE NUISANCE IN LONDON.

The Public Control Committee of the London County Council have called attention to yet another curious anomaly brought about by the exemption of Government property from the provisions of Acts passed in the interests of the public health. The Committee are able to state that there has been a distinct diminution in the number of cases of nuisance from black smoke in the metropolis; but they point out that very serious nuisance still continues to arise from a large number of chimneys at Woolwich Arsenal. They were advised that these chimneys, being on Government property, were exempt from the operation of the Act; but they thought it anomalous that private persons should be compelled to find a remedy for a nuisance which Government departments appeared to be able to commit with impunity. That Government departments should claim a licence to do that which if done by any other public body or by private persons would be illegal has always seemed to us to be a monstrous thing, and the matter is one to which the attention of Parliament ought to be directed. It is satisfactory to find, however, that sanitary authorities in the metropolis are waking up to their duty in this respect. That these authorities have rivalled the Queen's Government in the disregard of this duty is sufficiently manifest in the fact that up to the present time the London County Council has furnished evidence to the sanitary authorities of the existence of 3,612 cases of smoke nuisance. More recently, however, the sanitary authorities have shown a greater desire to deal with this matter; and as recent cases have almost invariably resulted in the imposition of substantial penalties, there is ground to hope for a marked improvement in the future.

MULTIPLE IMAGES IN THE NORMAL EYE.

In a recent communication to the Royal Society, Mr. Shelford Bidwell gave the results of some experiments which he has been conducting on the formation of multiple images in the normal eye. It is well known that bright objects for which the eye is not accommodated often present a multiple appearance, from 6 to 15 images being perceived. These are believed to arise from the suture-like radial lines which occur on the two surfaces of the crystalline lens. From Mr. Bidwell's experiments it appears that under suitable conditions the normal eye can see hundreds of independent images of a single point, an effect which probably results from the cellular structure of the lenses and the structures associated with them. Various experiments were tried with holes and slits from which light was allowed to proceed, but by far the best results were obtained by using as the source of light the horseshoe-shaped filament of an electric lamp, screened by a coloured glass. When such a lamp is looked at through a lens, convex or concave, of about 6 inches focal length, from a distance of a few feet the roughly oval patch of luminosity formed upon the retina appeared to be made up of a crowd of separate images of the filament. The number was few when the observer was near the lamp, and greatly increased when he retired from it or moved the lens further from the eye. The analysis was facilitated by interposing the adjustable slit of a spectroscope between the eye and the lens. An attempt was made to count the images, and for this purpose the whole of the filament was screened except a small portion of one limb, which was viewed from a distance of about 8 feet with a 5-inch convex lens. The number seen in this way varied in different observers from 20 to 30. The number also varied according as to whether the pupil was dilated or contracted, as with a small pupil two or three of the images were cut off on each side. In order to ascertain if the original images were composed of still simpler images, the attention was fixed upon one near the edge of the row, and on moving the convex lens slowly forwards in front of the slit the single image was ultimately crossed by from 15 to 20 lines, hence assuming 25 images, the total number of elements would be from 400 to 500. These latter observations seem to indicate some anatomical structure in or near the lens, and it is probably the endothelium on the anterior surface of the lens. The number of images was probably apparently increased by the effect being a composite or rather a differential one. There can be no doubt that the 7 or 8 images referred to in the description of the first observation were due to the sections of the lens.

"THE ARMY DOCTOR."

SUCH is the title of an article in *Macmillan's Magazine* for February—in style and tone not all that might be desired, and making a sort of final rumble of thunder after the big storm had passed. It has been a source of much satisfaction that, notwithstanding the bitterness of the past controversy over army medical matters, no sooner was a Royal Army Medical Corps formed and military titles therein given to medical officers, than opposition was hushed, and the change loyally accepted by the army at large—a fact inspiring present confidence and boding well for the future. It would be idle, of course, to suppose that the change passed altogether without private individual grumbling and animadversion; no reform of the kind ever did so. The author of the article, perhaps unwittingly, yet very happily, focusses the whole force of the late controversy in the following sentence: "After many years of moderately successful agitation, and a few months of an absolutely successful strike the doctor has become a real live officer." Exactly. Then it was true that he was reckoned no officer before; and, being none, it was the highly honourable desire of his opponents to keep him in that unworthy and impossible position. Could there be any better justification of the position taken up by the medical profession in the late controversy than this ingenuous admission? Captain Trevor further declares that the capitulation of the War Office has rid the doctors of "the hateful title of surgeon." Not at all—that is a civil designation which the War Office can neither confer nor take away, and is totally independent of military status. But the compound titles would probably have been still existing had not the combatant officers covered them with ridicule, and brought them into disrepute; it was not the medical but the combatant officers who killed the hybrid titles. He also harps on the old assumption that military status must and does lessen medical efficiency. There is not a ghost of proof of this. Has the Medical Service been less efficient in India and Egypt recently than formerly? Why should a man be a worse doctor because his military position is better defined? As well say that a baronetcy conferred on a Jenner or a Clark spoilt their professional skill! But the writer himself contradicts the absurd theory, for he says: "The self-devotion of the British doctor on the field of action has no parallel in the armies of France, Germany, or Russia." Lastly, he declares, with reference to the recent changes in the Medical Service, that, "fortunately, the whole history of military administrative experiments points to the return of the old order of things when matters have become sufficiently unbearable; he is a dreamer who regards the present state of affairs as anything but a phase." From which we suppose he looks forward to the time when the Royal Medical Corps with its military titles will be broken up, and the doctors posted to regiments, as surgeons and assistant surgeons, as in the olden days. "Money," he thinks will ultimately do it; for "it is not improbable the doctor of the future may refuse to accept the rank of archangel as part payment for his services." We fear the author here shows himself to be a "dreamer of dreams;" there is just about as much chance of the reactionary measures he contemplates with such satisfaction being carried out as there is of any sane statesman bringing in a measure to repeal the various Reform Bills of the last seventy years!

THE CHAIR OF PATHOLOGY AT GLASGOW.

THE vacancy created by the lamented death of Professor Coats, of Glasgow, will shortly be filled up. The Board of Curators, four of whom are appointed by the Glasgow University Court, and three by the managers of the Western Infirmary, met on February 2nd, and notice has been given that applications for the office of Professor of Pathology in the University of Glasgow must be sent to Mr. Alan E. Clapperton, Secretary of the Glasgow University Court, 91 West Regent Street, Glasgow, by March 24th. The curators present were: the Principal (in the chair), Dr. Hector Cameron, Dr. McVail, Mr. J. H. Dickson, Mr. James Boyd, and Mr. William Ker. The new professor will be required to begin his duties on April 25th.

AFTER-CARE ASSOCIATION.

THE annual meeting of this useful Association, which has for its object the rehabilitation into social and industrial life of poor persons discharged cured from asylums for the insane, took place on February 6th at the house of Sir Samuel Wilks, who presided. The annual report (presented by the Secretary, Mr. Thornhill Roxby) showed that 186 cases (55 of them men) had been considered by the Council as compared with 147 in 1897. Cases had been assisted by being boarded out in country cottages where considerations of health rendered change desirable, by grants of money or clothing, by occupation of a suitable character being found for those qualified for employment, and in other ways. The receipts had amounted to £652 12s. 3d. in 1898 as compared with £561 7s. 9d. in 1897. For the extension of the work of the Association additional subscriptions and donations were urgently needed. The Chairman pointed out the useful character of the work of the charity, supplementing, as it did, curative treatment in asylums by beneficial measures in many cases indispensable to confirm the recovery. All recognised the utility of convalescent hospitals for patients who had passed the acute stage of bodily illnesses; this Society, however, which was the only one in the United Kingdom to minister to the analogous but sometimes more urgent needs of those who had suffered from mental disorder, was not so well supported as it deserved to be, were its objects better understood. The Bishop of Islington moved the adoption of the report, and Dr. Blandford, in seconding, observed that even well-to-do patients recovered from an attack of insanity needed a complete change of scene before returning to the cares of business or of the family, and pointed out the still greater necessity of a period of invigorating change for those poor people who had no comfortable homes to go to. He controverted the popular notion that "once a lunatic, always a lunatic," and cited instances of persons who had had an attack of insanity but were yet doing very useful work in the world. The Archdeacon of Essex and Dr. Savage supported the motion, which was carried *nem. con.* Subsequently the Council and officers were reappointed, on the motion of Dr. Nicolson, C.B. (Lord Chancellor's Visitor), seconded by Dr. Claye Shaw; and a vote of thanks to the Chairman—spoken to by the Rev. H. Hawkins, Dr. Rayner, and others—brought the proceedings to a close. It may be added that amongst the persons helped during the year have been some who have not actually been under treatment in asylums, but, having been mental invalids, have on recovery been assisted in obtaining situations or put in the way of suitable change when necessary. The offices of the Association are at the Church House, Dean's Yard, Westminster.

THE CLINICAL INSTITUTE OF FLORENCE.

WE publish elsewhere an account of the renovated and reorganised buildings of the medical department of the Clinical Institute of Florence. It is a report and in part a translation of the address given by Professor Grocco at the inaugural ceremony, and no one could be better qualified to describe what has been done, for he has been the moving spirit throughout. The University of Florence was at one time a distinguished seat of learning; in the chances and changes of mortal life in Italy it has ceased to have a separate existence. But its dissolution left untouched certain faculties, amongst them that of medicine, which are now incorporated with the Royal Institution of Higher Education and in a way affiliated to the University of Pisa. Through great difficulties and obstacles Professor Grocco has fought his way valorously and has emerged signally triumphant. We congratulate him and his city.

A CLEAR CONFLICT OF TESTIMONY.

MR. COSTELLOE is reported to have said, during the discussion at the London School Board on the sanitary or insanitary state of the Brentwood Industrial School, that "he had never seen a case in which there was a clearer conflict of testimony." This, though it savours of epigram, really expresses rather well the confusion of mind which must be produced by a perusal of reports, counter reports, replies, independent reports, and independent counter reports presented on the drainage of the buildings. Last summer an outbreak of illness occurred at the school, and the medical officer of the Board reported that the drainage system required alteration in many respects. The assistant architect for repairs, under whose supervision the drainage had been reconstructed four years earlier, made an examination, and reported that everything was in good order and that no alterations were required. The medical officer was not satisfied and called for further examination. Thereupon the Board's sanitary surveyor made an examination, and reported serious defects in the drainage. Next an independent sanitary engineer was called in and confirmed the Board's surveyor. The assistant architect for repairs made some observations on this last report, but these did not lead the independent expert to modify his opinion. The Works Committee being bound to regard the matter as serious since the illness in the school had resulted in death, found that they had lost confidence in their assistant architect for repairs, and asked him to resign. This he refused to do, and the matter was therefore reported to the Board. The Board had all the reports before it, and also the report of the medical officer and of Professor Corfield. The medical officer in his report expressed the opinion that the outbreak of illness at the school was to be ascribed to the defective drainage arrangements, aggravated by the overcrowded condition of the school, whilst the water supply was not altogether free from suspicion. He suggested that the whole system of drainage should be remodelled under proper skilled supervision, and, pending such a revision, that the boys should not be allowed to return to the school. Professor Corfield, on the other hand, expressed quite a different opinion on the drainage, which he found well planned and carried out, though susceptible of improvement in minor matters. A motion to confirm the action of the Works Committee was met by an amendment to refer the matter back to them, and at this point the discussion was adjourned. But the last report of the medical officer has opened up a much larger question. He pointed to certain ineradicable defects in the site of the school, and further recommended that a material reduction should be made in the number of boys at the school, and more efficient ventilation afforded in the dormitories. In view of all the defects, removable and irremovable, he concluded by raising the question whether it was wise to retain the building at all as an industrial school.

CHEMICAL FIRE ENGINES.

A CORRESPONDENT draws our attention to a report in the *Eastern Morning News* of a meeting of the City Watch Committee at Hull, at which it was suggested that the loss of two lives at a recent fire might have been due to the use of "chemical" engines. By most of these engines carbonic acid gas is directed upon the blazing material, and this gas prevents the access of air to the fire, which cannot continue to burn for lack of oxygen. The possibility of any persons in the room being suffocated by the gas given off by the engine seems to be remote. It must be remembered that human beings can survive exposure to an atmosphere so highly charged with carbonic acid that a fire cannot burn in it. The chemical engines are chiefly of use at the beginning of a fire, when the firemen could easily rescue the inmates of a room before employing the engine. It must also be remembered that the fumes given off by burning material are, to say the least, quite as suffocating as carbonic acid, and that the combustion itself not only produces abundance of carbonic acid gas, but uses up the oxygen of the air as well. We do not remember a case of death proved to have resulted from the use of these chemical engines. No doubt if the air of a room in which people are sleeping were to become highly charged with carbonic acid the gas might have a narcotic effect so that they might be suffocated while still asleep, but it is hardly probable that the volume of gas emitted by one of the engines would be large enough to produce fatal results when mixed with the air of even a small room.

THE DISINFECTION OF DRAINS.

A DEBATE took place at King's College, on January 27th on the Testing of House Drain and Stack Pipes: their Cleansing and Disinfection after Illness, in connection with the classes of instruction for plumbers and sanitary inspectors conducted at the College. Some 300 plumbers were present. Dr. Mansel-Howe, of Tooting, who opened the debate, showed by lantern illustrations some of the ordinary means adopted by plumbers for examining the reliability of pipes—the water test, the smoke test, and the various odour tests. He also illustrated and considered the testing of pipes by compressed air and the use of the mercury gauge, and of rarefaction of the air in conjunction with the vacuum gauge, claiming for these tests greater simplicity, efficiency, and less liability of damage to property than belonged to the water test. The cleansing of the house drain and shaft pipes was advocated as a precaution which it would be wise to adopt from time to time, independently of sickness; after any illnesses it should be insisted on by the public sanitary authorities. At the present time, when so many house drains were provided with inspection, ventilating, and disconnecting chambers, it was comparatively easy thoroughly to brush out and scour this channel. In like manner the fittings and traps in association with the stack pipes were provided in all better-class plumbing work with inspection and cleaning eyes, in order that the curves and bends of the pipes in these fittings might be cleansed. Unfortunately these inspection eyes were seldom employed for cleansing purposes purely and simply, and were made use of only when some temporary stoppage or lodgment in the pipes necessitated immediate attention. When, however, the house drain and stack pipes had been treated mechanically by means of brushes, etc., it was recommended that all these pipes should be subjected to the disinfecting properties of chlorine gas for the destruction of pathogenic germs that might linger in the inaccessible parts of the pipes, and in the meshes of the hemp too frequently found in the many unions of the house drain pipe. Dr. Mansel-Howe stated he was greatly indebted to Mr. Edmund White, B.Sc., of St. Thomas's Hospital, for valuable information respecting the disinfection of the stack pipes and for the use and recommendation of chlorine gas in this particular. In the discussion which followed, the opinion was freely expressed that hemp might very readily be dispensed with in the uniting of iron drain pipes, and that when the house drain was constructed of stoneware pipes hemp should never be employed.

TUBERCULOUS PATIENTS UNDER THE POOR LAW.

The West Derby Board of Guardians of Liverpool have invited the other two large local unions—Liverpool and Toxteth Park—to a joint conference, to be held on Wednesday, February 22nd, to consider the treatment of Poor-law cases of tuberculosis, and to consider the advisability of treating the early cases in some rural locality with a view to their cure. This may be hailed as a decidedly progressive step. How to deal with cases of tuberculosis of the class referred to is one of the points connected with this important sanitary question which at present most urgently need to be dealt with.

PSEUDO-TUBERCULOSIS.

A special discussion on the subject of Pseudo-tuberculosis will be held by the Pathological Society of London on February 21st. Dr. G. Sims Woodhead will open the debate, and will be followed by Professor Sidney Martin, Professor John McFadyean, Drs. Washbourn, Pakes, and Wethered. It is hoped that any members who have anything to contribute will communicate with the Secretaries at 20, Hanover Square. The object of the debate is partly to focus the existing knowledge on the subject and partly to obtain a more definite idea as to what conditions should be included under the heading "pseudo-tuberculosis."

GUARDIANS ON MEDICAL REMUNERATION.

At a recent meeting of the Bristol guardians the subject of the appointment of medical officers to the "scattered homes" for pauper children was considered. In the first place it was proposed that an annual payment of 4s. a head should be offered as remuneration, the guardians to supply medicines. An amendment was proposed and carried that this sum should be reduced to 2s., but ultimately it was resolved that 3s. a head be paid, the medical officers to provide medicines. The chairman is reported to have remarked, "I think you will have to find a doctor to do it," and another guardian, that "they will be expected to do things for nothing next," so that it would appear that on the whole the Board have not an easy conscience about the decision. From the medical standpoint, such an appraisement of the value of professional services seems quite indefensible; and the principle that the doctor appointed should provide his own medicines is specially objectionable. It is not to be expected that children in pauper homes, scattered though they may be, will be exceptionally robust. We trust that the ridiculous rate of remuneration offered will prevent self-respecting members of our profession from offering themselves for the vacant posts, for guardians should be made to feel that medical "sweating" is as much a sin against sound social economics as is "sweating" of the labouring classes, from whom under similar circumstances we should soon hear an outcry about a "living wage."

AERATED WATERS AS FACTORS OF DISEASE.

At the instance of the Lucknow Cantonment medical authorities two aërated water factories have been closed, the water in use in the manufacture of the beverages having been pronounced unfit for use. It is to be hoped that the decision will induce the medical authorities in India to overhaul the aërated water factories under their jurisdiction at other stations, particularly at those where enteric fever is prevalent.

We regret to have to announce the sudden death of Mr. Thomas Cooke, which took place on February 8th. He was engaged in demonstrating in the dissecting room at the moment. The funeral will take place at Kensal Green Cemetery at 2 p.m. on Monday next.

At a meeting of the Scottish Liberal members on Wednesday Dr. Farquharson, as one of the senior members, was chosen to act as Chairman in succession to Sir Henry Campbell-Bannerman.

Owing to the death of Prince Albert of Saxe-Coburg and Gotha, the Queen's visit to the Isle of Wight Infirmary and County Hospital to open the Diamond Jubilee Memorial Wing has been postponed until July.

The sculptor, Herr Ernst Herter, has completed a statue of von Helmholtz, which is to be erected in the court of the University of Berlin, between the statues of the two Humboldts. The monument will be unveiled in the spring.

Professor Brouardel, whose term of office as Dean of the Faculty of Medicine of the University of Paris recently expired, has been re-elected for a further term of three years. The election is made by the professors of the Faculty and the *agrégés* in active service as public teachers. Professor Brouardel received 49 out of a total of 52 votes.

We understand that it is proposed to hold early next month a Conference to promote the formation of a Central Hospital Board for London, and that in connection with this the Charity Organisation Society has issued a circular inviting an expression of opinion on certain points. The point to which attention is particularly directed is whether the increase in the out-patient and casualty departments at general and special hospitals is acting injuriously on general practice in London.

We understand that some rearrangements in certain wards of the Hospital for Consumption, Brompton, with the view to promoting the efficiency of the treatment carried out in the hospital, are now under consideration, and that the question of the establishment of a country sanatorium is also being considered by the Medical Committee and the Committee of Management. A paragraph which has been extensively published in the press appears to give an erroneous impression of what is actually in contemplation.

MEDICAL NOTES IN PARLIAMENT.

[FROM OUR LOBBY CORRESPONDENTS.]

Parliament opened on Tuesday with a good muster of legislators in both Houses. The Commons House was unusually full, nearly 500 members being present; indeed, 449 voted in the first division. The difficulties of the Opposition over the question of leadership naturally invested the proceedings with more than common interest, and after the Address in reply to the Queen's Speech had been moved and seconded, the new Opposition Leader had a remarkably large and expectant audience. The speech of Sir Henry Campbell-Bannerman came as a surprise. It showed great capacity and guiding power, and, moreover, was pervaded by a racy humour which at once delighted his own followers and conciliated his opponents. It is long since the Liberal side cheered so heartily and so unanimously as during the delivery and at the conclusion of the new Leader's speech.

The Queen's Speech contained an important reference to plague in India, which is not altogether reassuring to those who can read between the lines. The spread of the malady is deplored, and although reference was made in the debate to greater co-operation on the part of the native population in the preventive measures, there can be no doubt the disease is widespread and still spreading. The legislative programme of the Government is scanty. Nearly every measure has been mentioned in previous speeches from the Throne. The catalogue for a session of Parliament which is generally considered a critical one is a list of measures rather useful than exciting. London government, a Board for primary, secondary and technical education, Private Bills procedure for Scotland, and the purchase of workmen's houses are the principal measures. In the omnibus paragraph legislation is mentioned with regard to London Water, Food Adulteration, and the Factory Acts, which may prove of interest to the profession; but there is, it is to be regretted, no reference whatever to the promised Bill for revaccination.

The Midwives Bill has hardly made as much stir this year as formerly among the large number of Bills to be introduced by private members. Still, a goodly number are balloting for a place for it, and if a high position is secured, its promoters hope to get a second reading, and then persuade the Government to take it up. Its promoters believe that the modifications made in the Bill will lessen opposition.

Of Private Members' Bills there will be a large crop. On the opening day no fewer than 292 names were on the list to ballot, and before the list closed more than 350. In some cases as many as between 30 and 40 names are down to get a high place for one Bill. In such a case the member who is lucky enough to have his name drawn first takes charge of the Bill and moves its second reading. The names for the ballot are put down on the first and second days of the session, the ballot for precedence is taken on the third day, and the Bills are announced and brought in on the fourth day. The daily papers of Saturday will therefore contain the fateful list, and of these only the first eight or ten will have any chance of passing into law. The first names drawn in the ballot are those of Mr. Robson, Mr. Reckitt, Sir B. Maple, Mr. J. F. Flannery, Mr. J. A. Pease, Mr. Pymm, Mr. H. Whiteley, Mr. Gordon, Mr. Tritton, Mr. D. McIver, Mr. Colville, Sir A. Scoble, Mr. R. J. Price, Mr. Strachey, and Mr. O'Malley. We do not recognise any well-known advocate of the Midwives Bill on this list, and unless it is taken up by one of the members named, its chances for the session are by no means promising. The subjects of old age pensions, Poor-law reform, and temperance have secured high places.

Vaccination and the Act of last session are not likely to be moved during this session. Mr. Bartley put down on the first day no fewer than three questions on the subject, relating to the danger arising from unvaccinated children in elementary schools, and the enforcement of vaccination on entrance to the army or navy. He has also asked for a return of the number of conscientious objectors. Among the Bills introduced by private members is that of Mr. Boulnois, M.P. for Marylebone, who seeks simply to repeal Section 11 of the Act of last year. It is not unnatural that Mr. Boulnois should limit his amending Bill to the repeal of Section 11, as it is common gossip in the Lobby that the demand for calf lymph from the Local Government Board has exceeded all expectations. The quantity originally provided for has been increased by more than 50 per cent., and a proportionate increase in the staff, etc., has been sanctioned.

Amendments to the Queen's Speech were showered in on Tuesday night as soon as the motion was made for an Address in the usual form. Wednesday's paper revealed no fewer than twenty-four amendments, and others may yet be handed in. None of the two dozen have any special medical interest, with the possible exception of those which relate to Poor-law reform and old age pensions; no fewer than five deal with these questions. The rest touch on constitutional and administrative questions, like Home Rule and the reform of the House of Lords, the crisis in the Church, foreign affairs, slavery, the grievances of postal employees, and the minimum wages for labourers in the Government service, which it is suggested should be 24s. a week. All these subjects are not likely to be discussed, although the debate on the Address will probably last all next week.

The Prevention of Tuberculosis is likely to crop up in the House on many occasions on account of the general public interest lately aroused on the subject. Mr. Channing, in his speech on the address, referred in strong terms to the want of more vigorous action on the part of the Board of Agriculture, and has followed up his remarks by a question calling attention to the action local authorities are taking to prevent the sale of milk from diseased cows. He presses the Government to secure by legislation better protection from tuberculous infection through the milk supply. The Board of Agriculture has recently appointed Dr. W. J. Collins, late Chairman of the London County Council, to represent the Council on a Departmental Committee to inquire into the Diseases of Animals Act.

The Practice of Massage as at present carried on will very probably be the subject of attempted legislation this session. The BRITISH MEDICAL JOURNAL did great service some years back in connection with the abuse of massage houses; and a Bill has been drafted by Colonel Dalbiac to regulate and control such establishments, and to license the persons who practise massage. The Bill would throw the work and responsibility on the General Medical Council, but it is thought that it is more a matter for the Home Office, as the General Medical Council has hitherto had no concern in licensing or inspecting institutions for any kind of practice, and is not a body well adapted to undertake duties which will require constant vigilance and prompt proceedings in order to check the alleged abuses. If the Bill gets a chance of consideration by the House, these points will no doubt be kept in mind by its promoters.

CONTRACT MEDICAL PRACTICE.

CORK.

WE understand that the medical officerships of several of the clubs in Cork which refused the terms of the medical profession have become vacant, and that two of these clubs have elected members of the profession in Cork under the regular rules. We think it well to call the attention of persons who may be approached with a view to accepting any of the appointments still vacant to this fact, and to point out to them that it can hardly be in their own interest to accept appointments upon terms which the medical profession in Cork are unanimous in condemning, while such action will undoubtedly be injurious to the best interests both of the medical profession and of the public.

MR. T. GARRETT HORDER (Windsor Place, Cardiff) writes: Will you kindly allow me to ask your readers for copies of reports of medical aid associations?

THE PREVENTION OF TUBERCULOSIS.

Dublin.

A special meeting of the Board and medical staff of the National Hospital for Consumption for Ireland was held in Dublin on February 1st in furtherance of the objects of the National Association for the Prevention of Consumption. Mr. R. O'B. Furlong, chairman of the Board of the National Hospital for Consumption for Ireland, presided. Among those present were Dr. J. W. Moore, President of the College of Physicians; Sir Francis Cruise, D.L.; Dr. T. W. Grimshaw, C.B., Registrar-General for Ireland; Dr. J. Magee Finny, ex-President R.C.P.I.; and other prominent members of the profession.

The Chairman, in explaining the objects of the meeting, stated that the National Hospital for Consumption for Ireland had already for some years anticipated in Ireland such efforts as were now about to be made by the National Association for the Prevention of Consumption to deal with a disease which was causing so large a percentage of mortality, and he felt sure that those present would recognise that it was their duty to welcome and assist in every way possible this movement.

Dr. T. W. Grimshaw, C.B., Registrar-General for Ireland, then made a statement, in which he mentioned among other facts that the average number of deaths from tuberculosis during the five years 1892-96, were:

—	United Kingdom.	Ireland.	Dublin and District.
Phthisis	59.015	9,672	1,214
Other forms of tuberculous disease	17,366	1,882	390
Total	76,381	11,554	1,604

These figures gave the following average as to the total deaths:

United Kingdom ...	10.8 per cent. of the total deaths.
Ireland	13.9 per cent. of the total deaths.
Dublin and District...	17.2 per cent. of the total deaths.

He called attention to the facts made public by Dr. J. W. Moore when at Carlisle two years ago that during the past twenty years or so tuberculosis had shown a steady tendency to decrease in England and Scotland, due to an increase in sanitary measures, but in Ireland the tendency to decrease was scarcely perceivable. At least 10,000 of the people of Ireland died annually from a disease which was infective, and therefore within control. He gave the fullest support to any organisation which would contend against such a calamitous disease.

Dr. J. Magee Finny moved:

That this meeting of the Governors and Medical Staff of the National Hospital for Consumption for Ireland, having regard to the fact that the extensive prevalence of tuberculosis constitutes at the present time the most fruitful source of danger to the public health, considers that the National Association for the Prevention of Consumption and other Forms of Tuberculosis is deserving of support.

Dr. O'Carroll, in seconding the resolution, was glad to state that owing to the circulation of a paper read by him on the Duties of the Community with regard to Tuberculosis, before the Sanitary Congress held in Dublin during last autumn, in which he called attention to the prevalence of consumption in cattle slaughtered in Manchester, many of which were shipped from Dublin, the sanitary authorities had now taken precautions to ensure that all cattle leaving Dublin were free from tuberculous infection.

The resolution was passed unanimously.

Mr. John Mulhall proposed:

That this meeting, believing in the system of treatment of consumption indicated in the published leaflets of the Association to be similar in principle to the fresh-air system adopted and in use at the hospital at Newcastle, as the most efficient treatment of consumption, considers it expedient that steps should be taken for the formation of one or more branches of the Association in Ireland.

The resolution, which was seconded by Dr. Alfred R. Parsons, and supported by Sir F. Cruise, was passed unanimously.

Dr. Anthony Roche gave a lecture on the prevention of tuberculosis at the North Dublin Workmen's Total Abstinence Society on February 2nd. There was a large attendance. The lecturer explained in popular language the causes of the disease and the means by which they might be avoided. The lecture, which was an excellent example of the kind of teaching needed to make the crusade against tuberculosis successful, was listened to most attentively by the audience.

Belfast.

The annual meeting of the subscribers and friends of the Forster Green Hospital for Consumption and Chest Diseases was held on January 25th.

After some introductory remarks from the Chairman, the Secretary read the annual report of the Board of Governors. On the suggestion of the medical staff it was in contemplation to provide covered verandahs and open-air shelters, where patients might benefit from the fresh-air treatment. The large conservatories and vineries were being converted into a winter garden, heated by hot-water pipes, but owing to the distance from the main building this could only be used by those strong enough to walk to the garden. The verandahs were designed so that patients might be wheeled out on couches if too weak to walk. It was also under consideration to secure a supply of sterilised milk, or to provide apparatus for sterilising on the premises. With open-air treatment and sterilised milk two of the remedies recognised as the most effectual would be available for the patients to the fullest extent possible. Treatment in the new way was likely to be more expensive, for while there would be a saving in medicines, it was probable that the patients must be supported for a longer period.

Dr. F. Howard Sinclair read the report of the medical staff, who stated that the total number of patients treated during the year was 511. Of these, 399 were new cases treated at the out-patient department, with 1,467 attendances of old patients, making a total 1,866 attendances. During the year the medical profession in this country had at last recognised what an Irish physician fifty years ago pointed out, that the most telling remedy in consumption was a properly carried out open-air treatment, The position of the hospital at Fortbreda was specially well adapted for carrying the details of the open-air cure.

The Marquis of Londonderry referred to the National Association for the Prevention of Consumption, which, as they knew, had recently been holding some very important meetings in England. It was, to his mind, specially necessary in Ireland to attempt to grapple with this disease, inasmuch as statistics showed that whereas for the fifteen years ending 1896, the ratio of deaths from pulmonary consumption to the total number from all diseases was 8.5 in England and Wales and 9.9 in Scotland; in Ireland it was 11.7. In Ireland, during the twenty-six years ending 1890, 1,200,000 deaths were registered, 200,000 of these being from consumption alone. If to these were added other forms of consumption which killed in other ways, the percentage of 11.2 would be arrived at. In view of these figures, they would readily understand the great pleasure he experienced in being present to urge the adoption of the report. He welcomed the paragraph dealing with the contemplated provision for sterilisation of milk. There could be no doubt that a close examination of cattle was most important, Some people had gone so far as to say that all cattle displaying the slightest symptom of tuberculosis ought to be slaughtered. Such a step might lead to many complications, and he did not wish to express any view concerning the matter, but as a well-wisher to his fellow-men he did trust that a very close inspection of all inspection of all cattle would be undertaken. The object of such a hospital as that in connection with which they were met was to provide for the treatment of those who were not in a position to seek either the warm sunshine of the Mediterranean or the cold healthy air of Switzerland. What should be impressed upon all interested in the question was that consumption could be stamped out if only the proper precautions were taken.

Professor Cuming, who also spoke, said it was regrettable that Great Britain, so long in the van in the matter of sanitary progress, should have fallen behind Germany, Switzerland, and the United States in respect to such institutions, and the efforts of the Committee to do their part in endeavouring to remedy this drawback was one which he thought most encouraging.

Rev. President Hamilton said that if the National Association had done no more than call attention to the facts that consumption was not hereditary, and not incurable, the existence of that Society would have been amply justified. It must be a matter of some pride to Belfast people now that the "open-air" treatment of consumption was recognised in the highest quarters, to know that this method of treatment was practised and preached by the late Dr. Henry MacCormac, whose stalwart form many of them yet remembered, and whose still better known son, Sir William MacCormac, had affixed his signature to the manifesto on the subject, drawn up by Sir William Broadbent.

IPSWICH.

On February 3rd a meeting was held at Ipswich, the Marquis of Bristol, Lord-Lieutenant of Suffolk, in the chair, to consider the question of the prevention of tuberculosis. The meeting was largely attended, the principal speakers being Sir James Crichton Browne and Dr. G. A. Heron, who represented the National Association for the Prevention of Consumption and other Forms of Tuberculosis. After some introductory remarks from the Chairman, Sir J. Crichton Browne said that, at a meeting held at Ipswich some two months before, Dr. Elliston had with the greatest force and lucidity stated the problem, and pointed out its only possible solution. But no opportunity should be lost of insisting that the remedial measures to which recent discoveries in regard to tuberculous disease had directed the profession should be inculcated in the public mind. It was of the utmost importance that this great crusade against tuberculosis should be a thoroughly national movement. He referred to the great decline in the prevalence of consumption which had taken place during the Queen's reign, adding that if with their comparative ignorance of the nature of consumption in the past, the mortality from that disease had been reduced two-thirds in sixty years, why, with that complete knowledge of its nature which they now possessed, should it not be exterminated in the next thirty years? In Suffolk the vital significance of the movement had been early recognised, for Dr. Jeafferson, of Framlingham, had said that consumption was practically disappearing from high Suffolk, and with its comparatively dry atmosphere, abundant sunshine and freedom from smoke, Suffolk had a great advantage in starting the work. Speaking of the further measures required, Sir James said that for all those sufferers dependent on the Poor-law guardians special hospitals should be provided, isolating the patients from others, and for the middle classes special sanatoria were urgently needed. Such sanatoria and hospitals would withdraw from the general population numerous little centres of contagion, and would undoubtedly restore to health and usefulness many who but for them must die. They would afford facilities for the open-air treatment that had attained such brilliant results on the Continent, and which in East Anglia also had been most favourably reported on. Dr. Heron, speaking with a full sense of the responsibility he incurred, maintained that the present system of treatment of consumptives in the out-patient departments of the hospitals at our large cities was little less than a farce. Just now, some thousands of consumptives were attending the waiting-rooms of London hospitals. They might wait there for a long time before they could be seen, and, when they were, what happened? The consumptive saw the physician for a minute or so perhaps; the physician prescribed some drugs for his patient, then with his bottle of medicine the consumptive went back to live, perhaps to half-starve, in a slum. To call this the proper treatment of consumption was a cruel mockery. The charitable public supplied the funds which supported hospitals, and it was for them to say how much longer they would permit such a waste of money and of time on this burlesque of charity. The moral of this was that sanatoria for consumptives should be established. The disease could be prevented; it ought to be prevented; and if the people of England would help it should be prevented.

The Mayor of Ipswich moved:

> That the thanks of the meeting be given to Sir James Crichton Browne and Dr. Heron for their addresses, and that we resolve to form a local branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis for the county of Suffolk.

The resolution, which was seconded by Sir William Brampton Gordon, K.C.M.G., was carried *nem. con.*

Dr. Crowfoot (Beccles) proposed:

> That it is desirable in the opinion of this meeting to establish in the district an experimental sanatorium on a self-supporting basis.

There was only one way in which the disease could be attacked, and that was by providing a sanatorium or hospital where such cases could be treated on proper principles. Unless they did that it was folly to attempt to prevent the spread of the disease amongst the poor. He felt that there was every probability, if a sanatorium were established on the Suffolk coast, that it would receive a good deal of patronage.

Dr. Casley seconded the motion, observing that it seemed to him that a sanatorium was urgently required, and he was rather sorry the resolution did not go a little further and suggest the appointment of a committee to collect the necessary funds. There were plenty of places on the seacoast where such a sanatorium could be placed. The motion was carried *nem. con.*

THE UNITED STATES.

A STATE SANATORIUM FOR CONSUMPTIVES IN NEW YORK.

According to the *New York Medical Record*, a Bill has been introduced in the New York State Legislature authorising the establishment of a sanatorium in the Adirondack forest preserve for the treatment of tuberculosis, the site to be selected by the trustees provided for in the Bill. The Bill provides that the sum of $200,000 (£40,000) be appropriated for the purpose of erecting and equipping the buildings. It is provided that within thirty days after the passage of the Act the Governor shall appoint five citizens of the State to constitute the trustees of the State hospital for consumptives, who shall be appointed for three years, who are empowered to select a site within the forest preserve wherein to construct the hospital, at a cost not to exceed $150,000 (£30,000), which shall be completed and provided with ample facilities for the accommodation of 200 patients within two years from the passage of the Act. The trustees are to receive a salary of $1,000 (£200) per year during the construction of the building, upon the completion of which their salaries are to cease. In order to supply to the public needed information concerning the disease, the State Board of Health is directed to issue a circular containing information upon the subject of tuberculosis and its prevention. The Bill provides for the appointment of examining physicians, two in number, in each of the cities of New York, Buffalo, and Syracuse, to examine patients and commit them by certificate. Patients able to pay, or having relatives able, must do so. The Committee appointed by the Senate to investigate the advisability of the measure strongly urged it, and drew up the Bill.

According to the *New York Medical Record*, an Anti-tuberculosis Bill has been introduced into the New York State Senate, providing that all cattle brought into the State shall have had a test thirty days previously at the hands of a State official, and shall be admitted only after this official has furnished a written permit to import them. All transportation companies are forbidden to carry cattle without such permit. No indemnity is to be paid for slaughter of diseased cattle brought into the State without a permit. Violation of the law imposes a fine of $25 (£5) to $250 (£50) for a first offence, and six month's to one year's imprisonment for a second offence.

GERMANY.

Dr. Pannwitz, General Secretary of the German Central Committee for the establishment of Sanatoria for Sufferers from Lung Disease, requests us to call attention to the fact that the Committee has arranged that a Congress for the Repression of Tuberculosis as a National Disease should be held in Berlin from May 24th to 27th. The Congress is under the protectorate of Her Majesty the German Empress, and the Imperial Chancellor, Prince Hohenlohe-Schillingfurst, is its Honorary President. The work of the Congress will be divided among five sections as follows: (1) The spread of the disease; (2) its etiology; (3) prophylaxis and (4) treatment; and (5) sanatoria. Anyone interested in the subject which the Congress proposes to consider may become a member on payment of 20 marks (£1) to the Bureau des Organisations-Komites, Wilhelm-Platz, 2, Berlin, W. The proceedings will be in German.

The number of those who have intimated their intention of taking part in the Congress already exceeds 300. A large number of ladies, among them the Grand Duchess of Saxe-Meiningen, will attend as delegates. The Emperor and Empress are known to be deeply interested in the Congress. The President of the Reichstag has placed the large hall of the Imperial Diet at the disposal of the organising Committee for the meetings of the Congress.

According to the Berlin correspondent of the *Standard* Count Posadowsky stated in the Reichstag on January 28th that societies for the establishment of consumption hospitals are being formed throughout Germany, and that ample means have been provided for this purpose by private persons. It seems inopportune to demand anything from the empire at present, because the efforts of private enterprise would be checked thereby. The Count then gave the official statistics of the spread of tuberculosis, which he called "the great destroying angel," but they seem to prove a decrease of the illness in proportion to the improvement of the standard of life among poor people.

The Chancellor's daughter, Princess Elizabeth Hohenlohe, has received 100,000 marks for the erection of a pavilion for consumptive patients from Herr Gustav Boehm, one of the largest Berlin corn dealers, whose son, aged 24, died of consumption a few weeks ago.

The ravages of various forms of tuberculosis in Germany may be exemplified by reference to the statistics of diseases published by the Imperial Insurance Department. It appears that half of those persons registered as infirm between the ages of 20 and 30 are suffering from some form of this disease.

ITALY.

To the city of Padua belongs the honour of being the first to establish a sanatorium for poor sufferers from tuberculosis in Italy. At a meeting of the Administrative Council of the Civil Hospital of that city on December 21st, 1898, a scheme drawn up by Dr. Giuseppe Pastorello was approved. From his report it appears that the annual number of deaths from pulmonary phthisis in Italy is about 40,000, while during the last three years tuberculosis has claimed more than 2,000,000 victims. Dr. Pastorello proposes that a sanatorium with 30 beds should be constructed in a suitable situation in one of the highest parts of the Euganean hills. He estimates the cost of erection at 100,000 lire (£4,000) and that of maintenance at 30,000 lire (£1,200) a year. He further suggests that a hospital for incurable cases of tuberculosis with accommodation for 100 patients should be established at the same time. By utilising existing buildings he thinks this could be done at an expense of 15,000 lire (£6,000). Dr. Pastorello hopes that the sanatorium will in course be enlarged by the erection of additional pavilions so as to provide accommodation for a much larger number of patients.

THE PLAGUE.

THE SPECIAL COMMISSION IN INDIA.

WE extract from telegrams to the *Times* the following evidence given at the sittings of the Commission held in Karachi.

Mr. Kaka, municipal health officer of Karachi, stated that the first outbreak of plague occurred in December, 1896, and ended in July, 1897. In March, 1898, a recrudescence occurred, and occasionally cases occurred up to the present moment. Certain native sects were more prone to the disease than others.

Captain Jenny, port health officer of Karachi, gave an account of the examination of ships from infected ports; he declared that the attempt to deal with the disinfection of cargoes had proved unsuccessful.

Colonel Mackenzie believed that Poona was infected by passengers carried thither by the railway. The symptoms in the natives and Europeans were similar, but the latter had greater resisting power.

Dr. Rainier described the first epidemic in the Palanpur State: it began in February and ended in May, 1897. The second epidemic began in May, 1897. Of the 21,000 inhabitants 674 were attacked by plague, and of these 413 died. The town was completely evacuated.

Mr. Sladen, Acting Collector, stated that as soon as a house in Karachi was infected or dead rats were found, the owners were compelled to disinfect it within two days, otherwise it was disinfected by the authorities and the expenses charged to the owners.

Colonel McConaghy stated that he was inoculated with Haffkine's serum in Poona; the dose was 3 cubic centimetres. He had slight fever on the following day, the temperature rising to 103° F. He had no other untoward symptoms. He had never seen any dangerous symptoms resulting from inoculation.

Dr. Nazareth gave an account of the treatment of plague by Dr. Roux's serum from the Pasteur Institute, Paris. Forty-seven patients were inoculated, of whom twenty-five recovered. Three doses were given of 40 cubic centimetres each. The treatment almost invariably failed in the pneumonic form of the disease.

During sittings at Baroda and Surat, Dr. Mehta, of Baroda, gave the results of inoculations in his district. At Undera 513 persons were inoculated with Haffkine's serum, of whom three only died of plague, whereas of 437 uninoculated persons 26 died. At Kaylee of 1,159 persons inoculated nine died of plague, whilst of 2,162 uninoculated 110 died.

The evidence given at Surat showed that the plague travelled thence from Bombay; 18,000 persons in December, 1896, were suffering from plague in Surat and district. There were 2,532 admissions into hospitals and of these 1,726 died.

In Lower Daman 7,000 persons were infected in February, 1897, but the plague had disappeared in October, 1898.

BOMBAY.

The deaths from plague during the week ending January 27th were 538 in the city of Bombay. This mortality shows an increase of 82 over the previous week.

MADAGASCAR.

Since plague first broke out in the island 285 cases had occurred, and of these 195 died. Five Europeans have been attacked, and of these only 1 died. The latest records show a marked decrease in the number of cases, and the outbreak is now limited to the town of Tamatave.

MAURITIUS.

A case of true bubonic plague has occurred at Port Louis. The victim was a labourer engaged at the dock. It is reported that other cases have been found in the town.

LITERARY NOTES.

Messrs. Methuen will shortly publish a new and cheaper edition of Sir George Robertson's fascinating *Siege of Chitral.* As most of our readers are aware, that "brave civilian," as he was called by the Duke of Cambridge, is a lieutenant-colonel in the Indian Medical Service.

The Archives Orientales de Médecine et de Chirurgie is the title of a new medical journal which has just appeared. It is intended to serve as the medical mouthpiece of Oriental countries, including Turkey, Egypt, Asia Minor, Greece, Roumania, etc., which are beginning to take part in the scientific movement. The periodical is published in Paris, and is edited by Dr. Diamant Berger with a large number of collaborators in Constantinople, Cairo, Bucharest, Odessa, Jassy, Tangiers, etc.

Every self-respecting medical school nowadays has a journal or a "gazette" of its own. Charing Cross has hitherto been almost as *distingué* among the London hospitals by the want of a journal as Lord Castlereagh was by the want of a decoration among the bestarred and beribboned diplomatists at Vienna. But it, too, has followed the fashion, and we have before us the first number of the *Charing Cross Hospital Gazette*, which is said by the Editors to be intended "to fill a gap which has long existed among the institutions of Charing Cross Hospital." Mr. Stanley Boyd contributes an interesting paper on Medical Education in Sweden; "James Truthfull" recounts an interview with Marwood, the hangman; and a promising caricaturist, hits off a well-known member of the staff in a characteristic pose. The rest of the contents relate to matters interesting to the students of the school.

The New York *Medical News* is beyond question one of the best edited medical journals in the United States, and its contents are always interesting. This makes it all the more regrettable that they are not always, at least in regard to English matters, strictly accurate. The London correspondent of the *News* has lately displayed quite a curious infelicity in his references to Jenner. We had occasion a week or two ago to correct a misstatement as to "the two Jenners," and again we find the name of Jenner proving a stumbling block to our contemporary. In the London letter published in its issue of January 28th, reference is made to the Jenner Institute, and it is stated that "the managers of the fund which had been raised to perpetuate the memory of Sir William Jenner offered to present it to the Institute if it would change its name to 'The Jenner Institute of Preventive Medicine.'" So is history written. The thing is, as Mr. Toots would say, "of no consequence." The two Jenners, in their places "where beyond these voices there is peace," are not likely to be disturbed by such mistakes as to their identity. We only mention the matter as supplying food for reflection to ambitious young men who hope to make their names immortal by sublime discoveries.

A correspondent has kindly sent us the following extract from *Punch* of April 4th, 1863, which is interesting historically as showing how long it took the War Office to learn the lesson which resulted in the surrender of last summer:

DEARTH OF ARMY SURGEONS.

To MEDICAL GENTS.—Wanted, a considerable number of Clever Young Snobs to compete for the Commission of Surgeon in the Army, for which there is at present an extreme Scarcity of Eligible Candidates, owing to the circumstance that men of education and ability sufficient to qualify them for the office refuse to accept it, unless upon the impossible condition of being treated as gentlemen.

All applicants must be Fellows of the Royal College of Surgeons and Doctors of Medicine who have received diplomas recognised under the Medical Registration Act.

In addition to their professional qualifications, they must possess a capability of being continually and contentedly snubbed and patiently submitting to any amount of insult. They will be required at the Mess table to occupy a position subordinate to that of every combatant officer, even the youngest Ensign, whose permission it will be necessary for them to ask for the purpose of giving the band or the attendants any kind of order. It will be necessary for them to be regardless of those petty annoyances unavoidably inflicted by junior officers on their inferiors in rank but superiors in age and attainments. No Thin-Skinned persons, endowed with any Self-Respect whatever, or animated in the least degree by the Feelings of a Gentleman, need apply. For further particulars inquiry may be made at Head Quarters.

By Order.

Horse Guards,
March 25th, 1863.

Some time ago it was mentioned in this column that Dr. H. T. Whitney, President of the Medical Missionary Association of China, was engaged in translating Gray's *Anatomy* into Chinese. We learn from the *China Medical Missionary Journal* that the original translation was made many years ago by the late Dr. Osgood, and that Dr. Whitney is revising his translation for a new edition. Since Dr. Osgood translated the book, however, "Gray" has been practically rewritten, so that Dr. Whitney's task is hardly less laborious than if there had been no previous translation to work upon.

THE NEW VACCINATION ACT IN OPERATION.

THE LYMPH OF THE NATIONAL VACCINE ESTABLISHMENT.

A P. V. writes; I notice in the BRITISH MEDICAL JOURNAL of February 4th a complaint from a public vaccinator as to the quality of the lymph supplied by the National Vaccine Establishment. I think it only fair that other P.V.'s should record their experience. This is mine. Of 60 cases vaccinated by me since January 1st with the said lymph:

In 50 cases 4 perfect vesicles.
In 5 cases 3 perfect vesicles.
In 2 cases 2 perfect vesicles.
In 2 cases 1 perfect vesicles.
In 1 unsuccessful.

The last child I revaccinated; result, 4 perfect vesicles. I may say that it is common knowledge that some mothers in this district, as soon as the vaccinator leaves the house, remove the dressings, and two out of the four scarifications are carefully scrubbed clean. Perhaps this is the secret of P.V.'s want of success.

DR. F. H. LANE, Public Vaccinator of the Burford District of the Witney Union writes: I applied for ten tubes of lymph at the beginning of last month with which I vaccinated ten children, making the regulation number of insertions? The result was to produce forty typical vaccine vesicles on the eighth day. The source of the lymph was marked No. 47. Equally good results have been obtained with V.E. lymph, source marked No. 50.

Dr. DAVID M. SERJEANT, Public Vaccinator, Camberwell District, writes that he has marvelled at the good results. His experience to January 26th was:

90 consecutive cases. 360 scarified areas. 355 vesicles of good size. No failures.

Dr. EDWARD LYNES, Public Vaccinator, Coventry, writes: My experience of the new lymph supplied by the Local Government Board is much more favourable than that of your correspondent "P. V." The results of my first 100 vaccinations (all primary) are as follows:

There were no failures. In 90 cases, 4 vesicles. In 5 cases, 3 vesicles. In 5 cases, 2 vesicles.

The vesicles were, as a rule, plump, of a good size, and with very little or no areola on the eighth day. In fact, typical, compound vesicles—and more uniform in size and character than one is accustomed to get in arm-to-arm vaccination.

ANOTHER P. V. writes: I also have lost much time, and have been sorely tried in patience, by the failures of lymph obtained from the same source.

Dr. J. M. FERGUSON (Burnley) writes: I have used some 40 tubes, and in only two cases have the results been such as not to comply with the requirements of the Board—namely, a vesiculated area of half an inch. One of these cases has been vaccinated again with perfectly satisfactory results, the other has been vaccinated but not yet inspected. I find, however, that sometimes the vesicles do not reach maturity till ten or eleven days after vaccination.

THE CONSCIENCE CLAUSE.

Mr. W. P. Fullagar, of West Bank, Lytham, writes to the *Standard* that at a well-attended meeting of the Lancashire Division of the National Union held in Liverpool on January 21st, the remarks of the Chairman, Sir F. S. Powell, Bart., M.P., condemning "the conscientious objector" clauses of the recent Vaccination Act, were loudly applauded, and that subsequently Mr. Fullagar carried an almost unanimous resolution urging the Government to consider the operation of the Act. He suggests that the matter should be brought before the House of Commons by means of an amendment to the Address or other such step, and that political and other organised bodies should use all possible methods of driving home upon the Government the necessity for an immediate correction of the error committed.

UNVACCINATED MARINES.

An important order has just been issued in the Royal Marines to the effect that unvaccinated families of this corps are not to be allowed to come in contact with other marines or their families in such a way as to jeopardise their health. The order is thus worded: "Unvaccinated families are not to be allowed to live in barracks, nor are they to be conveyed to any foreign station at the public expense; nor is any unvaccinated child to be allowed to attend the divisional schools." A large extension of this order in both military and naval life is very desirable, and cannot but be attended with good results.

DUTIES OF PUBLIC VACCINATORS.

A. H. C. writes: As public vaccinator, I was ordered by the vaccination officer to attend at the home of a child at a distance of six miles for whom no exemption certificate had been obtained. The parents refused to have the child vaccinated.

Under the Act I am entitled to the fee of 1s. or its equivalent (to be fixed by the Local Government Board) for all children for whom no exemption certificates have been obtained. The parents informed me that they would get a certificate. Should they do so, will this deprive me of the fee after having made the visit? If so, it will be a monstrous injustice.

⁂ 1. No certificate of exemption can be obtained if the child is over 4 months old, nor will any such certificate be of any avail unless delivered to the vaccination officer within seven days of being obtained.

2. There is a minimum fee of a 1s. payable for every child whose name appears in the official list sent by the vaccination officer to the public vaccinator, and also for every child whose name is not included in such list, but who has been vaccinated by the public vaccinator himself. In every case of successful vaccination, of course a minimum fee of 5s. is payable in addition.

H. F. L. T. W. writes: As public vaccinator I call, according to notice given, to vaccinate the third child of a family, it being over 4 months old. I ask the mother to remove the sleeve, and she replies "No. When I came to the vaccination station I had to take off the sleeve, but I shall not do so now, nor shall you. You can vaccinate my baby if you like, but I don't believe in it." Will you kindly tell me what I should do in this case, or how I can vaccinate the baby aseptically?

⁂ This question is important as a type of a series of questions which are arising out of the fact that the new Act and Order do not define the word "vaccinate" nor the phrase "offer to vaccinate." A public vaccinator calls and offers to vaccinate a child. The mother says, "You can vaccinate if you do it in my way." The public vaccinator says he must do it in his own way. The courts will have to decide in particular cases whether an offer to vaccinate made under such circumstances has been accepted or not. As the public vaccinator is responsible for the work he does, he should treat such a case, provided his persuasive powers fail to move the obstinate mother, as a direct refusal of official vaccination, and should enter full notes of the case in his private notebook to provide for any contingency, such as having to appear and give evidence in court. The difficulty is greater in the case where the mother says, "I am not going to have four places made; you can vaccinate if you will only make two insertions, but not unless." Any yielding to such a temptation will not only be contravening the Local Government Board Instructions to Public Vaccinators, but will plait a whip with which the poor public vaccinator will be likely to find himself unmercifully lashed in future.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1899.

Meetings of the Council will be held on April 12th, July 12th, and October 11th, 1899. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 23rd, June 22nd, and September 21st, 1899.

Election of Members.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

Francis Fowke, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

Lancashire and Cheshire Branch.—An intermediate meeting of this Branch will be held in Liverpool on Tuesday, February 28th. Gentlemen wishing to read papers, show cases, or make any communication, should communicate at once with the Honorary Secretary, Dr. James Barr, 72, Rodney Street, Liverpool.

Metropolitan Counties Branch: East London and South Essex District.—The next meeting of this District will be held at Hackney Town Hall, on Thursday, February 16th, at 4 P.M., Dr. Shadwell, Vice-President of the District, in the chair. Mr. Tubby will read a paper on the Preventive and Curative Treatment of Enlarged Glands in the Neck in Childhood. Visitors are invited.—C. J. Morton, Hon. Sec., 56, Orford Road, Walthamstow.

Staffordshire Branch.—The second general meeting of the session will be held at the North-Western Hotel, Stafford, on Thursday, February 23rd. The President, Dr. McAldowie, will take the chair at 4.30 P.M. There will be dinner at 6.30 for those staying.—F. Milnes Blumer, Hon. General Secretary, Stafford.

Border Counties Branch: Counties of Roxburgh, Berwick, Selkirk and Peebles District.—A meeting of this District will be held in the Douglas Hotel, Galashiels, on the afternoon of Friday, February 17th. at 3 o'clock. Members will much oblige by intimating to the Secretary their intention to be present, and the title of papers they wish to read and the nature of the cases to be shown.—W. Hall Calvert, Honorary Secretary, The Laurels, Melrose.

DUBLIN BRANCH.

The twenty-second annual meeting of the Dublin Branch was held in the College of Physicians, Dublin, on February 6th, Sir Christopher Nixon, the outgoing President, in the chair.

Report of Council.—The report stated that there were only 180 members of the Branch, so that they laboured under the disadvantage of being able to send only one representative to the General Council. The most important matter which the Council had had to deal with in the course of the year was the Local Government Bill, which passed into law during last autumn. During the Committee stages of this Bill, and, indeed, until its final passage through the House of Lords, strong efforts were made (1) to secure a clause dealing with the sanitary administration of the country; and (2) to amend the clause dealing with the Poor-law medical officers, so as to make the granting of their superannuation allowance compulsory. In regard to the sanitary provisions sought for, the Council, in conjunction with the Royal College of Physicians, the Royal College of Surgeons, the Irish Medical Association, and the Dublin Sanitary Association, drafted a clause which was based on the same lines as the enactments in force in England and Wales as well as in Scotland. Although the Government refused to accept the clause proposed by the various bodies named, eventually those who were responsible for introducing the Bill drafted a clause which unfortunately fell so far short of what was desired that its non-acceptance was a foregone conclusion. In a like manner the Government refused to give security to the Poor-law medical officers in the matter of superannuation; but while success did not attend the efforts directed to secure these reforms, in a few matters, however, the Government were more reasonable. The interests of the county infirmaries were safeguarded, and the qualifications of superintendent medical officers of asylums were made more definite. On the motion of Dr. Cranny, seconded by Dr. Tweedy, the report was adopted.

Election of Officers.—The ballot having closed, the following officers and council were elected:—*President:* Mr. F. T. Heuston. *President-Elect:* Sir Charles Cameron, C.B. *Vice-Presidents:* H. C. Tweedy, M.D.; C. B. Ball, F.R.C.S. *Council:* E. H. Bennett, F.R.C.S.; H. T. Bewley, M.D.; J. Lentaigne, F.R.C.S.; E. J. M'Weeney, M.D.; J. W. Moore, M.D., President R.C.P.I.; Sir J. C. Nixon, M.D.; J. M. Redmond, M.D.; W. G. Smith, M.D.; W. J. Smyly, M.D.; Sir Wm. Stokes, F.R.C.S.; J. B. Story, F.R.C.S.; R. L. Swan, President R.C.S.I. *Representative on Council of Association:* J. W. Moore, M.D. *Honorary Secretary and Treasurer:* J. Craig, M.D.

Votes of Thanks to Outgoing President.—The newly-elected President having taken the chair, Sir W. Stokes moved, and Sir George Duffey seconded, a vote of thanks to the outgoing President, to which Sir Christopher Nixon responded.

President's Address.—Mr. Heuston then delivered an address, which is published at page 354.

Vote of Thanks to President.—On the motion of Sir William Thomson, seconded by Professor Bennett, a vote of thanks was accorded to the President.

Tuberculosis in Ireland.—Dr. Grimshaw read a paper on The Excessive Prevalence of Tuberculosis in the United Kingdom, especially Ireland. He said the prevention of tuberculosis had long been neglected, especially in Ireland, where the only efforts that had been made had been the establishment of the hospitals at Newcastle and Belfast for the treatment of consumption, and the provision for incurable cases of that disease. He gave a history of the movement, leading up to the formation recently of the National Society for the Prevention of Tuberculosis. After giving statistics of the ravages caused by tuberculosis, and pointing out the causes of the disease, he said the means of prevention fell under two principal heads: (1) To prevent the spread of infection among human beings; (2) To prevent the use of milk and meats containing the tuberculous bacillus. Under the first head the following preventive measures were enumerated: (*a*) General sanitary measures, such as cleanliness, the prevention of overcrowding, a plentiful supply of air and of sunlight—the two great enemies of tuberculosis; (*b*) the separation, as far as possible, of the sick from the healthy by placing the curable cases, or such of them as cannot be dealt with privately, in sanatoria, under circumstances where arrangements (especially the treatment by a plentiful supply of air and sunlight and suitable dietary) can be provided without stint, and by placing the incurable cases in suitable homes, where, while mitigating their own sufferings, they cease to be a source of danger and suffering to their families and neighbours; (*c*) destruction by disinfection of any disease germs which may have become diffused from the infected persons. Under the second head it was absolutely necessary that measures should be taken for the examination of milk and meat offered for sale, and stringent measures should be taken for the supervision of dairy cattle, dairy yards, and dairies, and for the inspection of slaughterhouses, and the arrangement of abattoirs, and their compulsory use where practicable. The tuberculin test should be employed as extensively as possible to dairy cattle, and traders in milk, who decline to submit their cows to the tuberculin test, should be placed under specially stringent restrictions. In order to carry the proposed measures of prevention into effect it was absolutely necessary that public laboratories should be provided for scientifically ascertaining that the disease exists. Again, hospital accommodation must be provided. Dr. Grimshaw believed it would be found that the most effectual method of providing for the sick poor afflicted by consumption would be the provision of voluntary hospitals to which the sanitary authorities would contribute as they might require to use them for the people. In conclusion, he referred to the good work that could be done by the diffusion of literature in the form of leaflets, which would give information to the public. In this way they would secure public support. Dr. J. W. Moore, proposed:

> That the members of this Branch are rejoiced to see that the prevention of tuberculosis is engaging public attention, and that well-directed efforts to secure this object are being taken by the British Medical Association and by the National Association for the Prevention of Tuberculosis. The Branch further wish to impress upon the public the risk to health which arises when the poisonous expectoration of consumptive patients is not speedily destroyed; and advise that all sanitary authorities should issue leaflets pointing out the dangers of infection, and directions for avoiding those dangers; and the Branch call upon Queen Victoria's Jubilee District Nurses to aid in distributing such leaflets. Lastly, the Branch would insist on the necessity which exists for improving and developing the hospital accommodation for the treatment of consumption.

Mr. Swan seconded the resolution, which was supported by Sir C. Cameron and Dr. E. J. McWeeney.

Dinner.—In the evening the members dined at the College of Physicians. There were present his Grace Archbishop Peacocke, Mr. Justice Ross, Sir Andrew Reed, K.C.B.; Professor Fitzgerald, F.R.S.; Sir Charles Cameron, C.B.; Sir Henry Thynne, C.B.; Professor Carroll, Sir C. J. Nixon, Count Moore, D.L.; Sir Arthur Vicars; President Royal Academy of Medicine, Dr. Bennett; Vice-President Royal College of Physicians in Ireland, Dr. W. J. Smyly; Surgeon-General Preston, Dr. W. G. Smith, Dr. Ball, Dr. W. Beatty, Mr. Samuels, Q.C.; Mr. A. L. Horner, B.L.; Mr. G. N. Jacob, Dr. Fitzgibbon, Dr. Woodhouse, Mr. J. Mulhall, Vice-President Prisons Board; Dr. Oulton, Dr. Kidd, Dr. Middleton, Major Heuston, Mr. Lentaigne, Dr. Finucane, Dr. Alex. Gordon, Dr. Purefoy, Dr. Cranny, Dr. Redmond, Dr. Usher, Mr. Maurice Brooks, D.L.; Mr. F. E. Ball, J.P.; Mr. W. F. Cotton, J.P.; Mr. R. H. Moore, Dr. G. P. Moore, Dr. Peacocke, Dr. T. E. Gordon, Mr. D'Alton, Mr. B. W. Wilson, Dr. Hadden, Dr. Travers Smith, Dr. James Craig, Honorary Secretary. The usual toasts were proposed, and the speakers were the President, Professor G. Fitzgerald, Sir C. Nixon, Dr. W. Smyly, Professor Bennett, Sir C. Cameron, Mr. Justice Ross, Sir Andrew Reed, K.C.B., and Dr. Stewart Woodhouse.

PERTHSHIRE BRANCH.

A clinical meeting of this Branch was held at Perth on February 3rd, the President in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read, approved, and signed.

New Member.—William A. Taylor, M.B., C.M.Edin., Perth, was elected a member of the Association and Branch.

The Prevention of Tuberculosis.—Dr. Urquhart made a statement as to the prevention of tuberculosis; and after discussion Dr. Stirling moved, and Dr. Robertson seconded:

> That the question be referred to a Committee to draw up a report for submission to the Branch on an early date.

The Committee named consists of Dr. Beattie (Præses), Dr. Niven, Dr. Stirling, Dr. Robertson (Perth), and Dr. Urquhart.—This was carried unanimously.

Tuberculous Disease of Glands and Joints.—Dr. Stirling addressed the meeting on Tuberculous Diseases of Glands and Joints, and showed cases in the wards.

NORTH OF IRELAND BRANCH.

The winter meeting of this Branch was held in the Museum, College Square, North Belfast, on January 26th. The President (Dr. Henry O'Neill) occupied the chair, and forty-six members were present.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

New Members.—Dr. Henry Norman Barnett (Thornhill, Knock, co. Down), Dr. Wilson Ranson (The Infirmary, Downpatrick), Dr. S. T. Beggs (Crumlin Road, Belfast), and Dr. Sullivan (Plumbridge, co. Tyrone) were elected members.

National Association for the Prevention of Consumption.—Dr. Lindsay moved:

> That this Branch approves of the objects of the National Association for the Prevention of Consumption and other Forms of Tuberculosis, and commends them to the sympathy and attention of the members of the medical profession in the North of Ireland.

This was seconded by Dr. Calwell, supported by the President, and passed unanimously.

Communications.—Dr. Lindsay read notes of a case of probable Tuberculous Meningitis, which ended in recovery. Drs. Moorhead, Calwell, Dempsey, and the President criticised the author's conclusions.—Dr. Vesey (Rostrevor) read a paper on Septic Infection of the Urinary Tract. Dr. Moorhead made some remarks on the case.—Dr. Frier (Waringstown) read a paper on Intubation of the Larynx, with remarks on 22 cases. The President congratulated him on his results.—Dr. Darling (Lurgan) made observations on two recent circumscribed epidemics of Typhoid Fever.—Dr. Tennant contributed observations on the Bacteriology of Typhoid Fever.—These two papers were followed by a discussion, in which Drs. Vesey, Agnew, Calwell, and Henry O'Neill took part.—Dr. Tate (Downpatrick) showed a Sarcomatous Tumour, growing from the antrum, for which he had removed the upper jaw.—Mr. Sinclair Kirk showed a case of Excision of the Head of the Radius for Fracture, and a child on whom he had operated for Torticollis.

POST-MORTEM EXAMINATIONS FOR CORONERS.

In accordance with resolutions adopted by the Parliamentary Bills Committee and the Council of the British Medical Association, the President of Council addressed the following letter to Mr. Braxton Hicks, Coroner for the South-Western District of London. Mr. Hicks's reply is appended.

[Copy.]

429, Strand, W.C., February 4th, 1899.

Dear Sir,—At largely-attended meetings of the Parliamentary Bills Committee and of the Council of the British Medical Association, held in London on the 18th ultimo, the matter of the recent condemnation passed upon you as Her Majesty's Coroner by Mr. Plowden, a magistrate for a London district, was considered, and I was unanimously empowered to convey to you the sympathy of the Association for your efforts to secure the proper performance of autopsies at coroners' inquests.—I am, yours faithfully,

Robert Saundby, M.D., LL.D., F.R.C.P.,
President of Council.

A. Braxton Hicks, Esq.,
20, Lupus Street, London, S.W.

20, Lupus Street, S.W., February 7th, 1899.

Dear Sir,—I have to thank you for your letter of the 4th instant, and to express my great appreciation of the sympathy shown me by the Parliamentary Bills Committee and the Council of the British Medical Association, in the matter of myself and Mr. Plowden. This expression will greatly facilitate the action of myself and other coroners in carrying out our duties.—Yours faithfully,

A. Braxton Hicks.

Robert Saundby, Esq., M.D., LL.D., F.R.C.P.,
President of Council, British Medical Association.

SPECIAL CORRESPONDENCE.

BERLIN.

Medical Courts of Honour.—A Hygienic Institute at Posen.—The German Samaritan Society.—The Repression of Quackery.—The Vaccination Law.

The Government Bill for the establishment of Medical Courts of Honour was read a first time in the Prussian Diet on February 4th, and, after a lively debate, was referred to a committee of fourteen members. Virchow, in a long and able speech, opposed the Bill. Medical courts of honour, he said, would at best be superfluous, as the existing organisations—the medical associations and societies and the twelve Prussian *Aerztekammern*—were sufficient to protect the prestige of the profession; he feared a political bias in these proposed new institutions, which were to be presided over by provincial governors and were not to be exclusively composed of medical men. Cultusminister Bosse, in reply, said that the Bill had been prepared solely and entirely in the interests of the medical profession. After ample discussion, ten of the twelve Prussian *Aerztekammern* had pronounced in favour of the Bill by a large majority, while in the remaining two the vote against it had been carried by so small a majority that it might fairly be said that eleven-twelfths of the profession in Prussia desire the Bill to become law. Speeches for and against the Bill were made by other members, and a number of amendments were proposed which may possibly be taken note of in Committee.

Near the eastern frontier of the Prussian monarchy, in the town of Posen, a hygienic institute is to be erected. It will contain a hygienico-bacteriological and a pathologico-anatomical department, with the usual staff of directors and assistants. Their sphere of work is to comprise supervision and improvement of water supplies, of drainage works and the bestowal of refuse; soil and subsoil examination; hygienic supervision of works, factories, warehouses, etc.; prevention of the spread of infectious diseases; *post-mortem* examinations; courses of lectures, some popular, on subjects connected with hygiene, bacteriology, and pathological anatomy. It is hoped that the scientifically-conducted efforts of the institute will be successful in arresting epidemics such as cholera, small-pox, typhus, etc., which frequently have come into Prussia from across the Russian frontier.

President Gaebel took the chair at this year's meeting of the German Samaritan (Ambulance) Society, which was an important one, as it finally determined the Society's affiliation to the great organisation of the German Red Cross societies. The report stated that the ambulance courses had been well attended, especially the ladies' courses, and that first aid had been given in more than 1,100 cases of illness or accident during the year. Army-Surgeon de Friedheim read a paper on the care of the sick and wounded in the German army.

The Cultusminister, Dr. Bosse, has addressed a rescript on the subject of quackery to the Central Committee of the Prussian *Aerztekammern* (representative bodies of medical men). Dr. Bosse says that voices have been raised repeatedly in medical circles to demand the repeal of the general liberty to practise, and restitution of the quackery prohibition. The complaints are: (1) That the general liberty to practice places licensed practitioners on a level with quacks in the mind of the people, thus causing the profession to suffer in prestige as well as in pocket. (2) That the ignorance of quacks in detecting infectious diseases, and the opposition against approved measures of public hygiene which they are instrumental in spreading amongst the people, have the most disastrous effects. Dr. Bosse concludes by saying that before he takes any steps to alter the law on this subject, he wishes to have the opinion of the *Aerztekammern* Central Committee, whom he requests to collect and submit to him as much material as possible towards elucidation of the actual facts.

Not only the Prussian Diet, but the German Reichstag also, has been occupied with medical matters during the last week. During the debate on the budget, and on occasion of the vote for the funds to support the Imperial Board of Health, a medical Liberal member (Dr. Endemann) requested Count Posadowsky, the Minister, to be vigilant against any proposed alterations in the great principles of the German vaccination law, and above all to maintain compulsory vaccination. Statistics proved that the cases of illness following on vaccination had decreased to a truly astonishing extent, owing, no doubt, to the present improved methods. Count Posadowsky replied that the Federal Governments of Germany did not contemplate any change in the principles of the vaccination law, but only in some of the details of execution, such as the manufacture and preservation of the lymph.

ROME.

The Italian Government and Reciprocity.

IT was mentioned in the BRITISH MEDICAL JOURNAL of January 14th (p. 119) that the Minister of the Interior of the Italian Government had lately stated in the Chamber of Deputies "that the Government would interest itself in a diplomatic way to obtain reciprocity of treatment in favour of the Italian medical men who practise their profession in other countries." The Italian Government has lost no time in fulfilling the promise made by the Minister of the Interior, as is shown by the following circular sent by the Italian Minister of Foreign Affairs to the Italian Ambassadors in foreign countries.

> Article 23 of the Italian law on Public Health, while it forbids, as a general rule, the practice of medicine in the kingdom to those who are not provided with the corresponding diploma acquired on the basis of our scholastic regulations, permits, by way of exception, that foreign practitioners may exercise their profession in Italy among foreigners only.
>
> This exception, however, adopted in favour both of the foreign doctors and of the foreign residents in Italy who may thus avail themselves of the services of the practitioners in whom they have confidence, is to the disadvantage of the native doctors through the competition thereby caused, and it is, in many cases, contrary to equity, inasmuch as the States are very few that, like Italy, accord an equal favour to foreign residents.
>
> The Royal Government, therefore, has the intention of modifying the cited law in the sense of limiting the exception with which it deals in favour of those foreign doctors only in whose country our countrymen enjoy such special treatment.
>
> I shall be thankful, therefore, if your Excellency will request from this Government an answer to these two questions:
>
> 1. Can Italian doctors there practise their profession among all or only among the foreign residents, without obtaining a new diploma?
>
> 2. In the negative case, would this Government be disposed to accord to them such permission if in Italy we continue to consent to the doctors of this country practising their profession within the limits above indicated?
>
> Awaiting such answers, which I desire to be as categorical as possible, so as not to enlarge the question beyond the limits of this special case.—
>
> I am, etc.,
> For the Minister,
> MALVANO.

The above circular clearly shows that the Italian Government is desirous of obtaining not less than as much as it now gives, at least as far as some foreign countries are concerned.

BELFAST.

The New Royal Victoria Hospital.—Health of Belfast.—The Irish University Question and Ulster.—The Value of the Objection to a Northern University.—Proposed Affiliation with Trinity College, Dublin.

MR. HENMAN, F.R.I.B.A., of Birmingham, who was commissioned some time ago to prepare the plans of the new Royal Victoria Hospital, has submitted a draft sketch, which is now under consideration by the Construction Committee. It includes some highly interesting and novel features, and, if adopted, will mark a new departure in hospital construction. Mr. Henman was selected without competition as architect of the new hospital because of the very favourable impression which the new General Hospital at Birmingham, designed by him, made upon the lay and professional members of the Executive Committee of the Royal Victoria Hospital, who visited it and various kindred institutions with the view of seeing the best recent work in this department. Mr. Henman's plans for Belfast are entirely original, and not at all upon the lines of the Birmingham Hospital. Advantage has been taken of the large and spacious site available at Belfast, a site which Mr. Henman regards as peculiarly adapted for the purpose in view. It is expected that the new hospital will be ready in about three years. A somewhat novel point has arisen in connection with the charter. As the present Royal Hospital was incorporated under charter, and as it was found necessary to make some important changes with regard to the constitution of the new hospital, a new charter was requisite. This has been secured, and has received the Queen's assent. It turns out that when the new charter is received in Belfast the old charter will be *ipso facto* annulled, and as a consequence the Royal Hospital will cease to exist, and will be replaced by the Royal Victoria Hospital, which will simply change its premises in three years' time to the new buildings in the Grosvenor Road. This state of things was not contemplated, and will cause some temporary inconvenience. The present Board of Management of the Royal Hospital will cease to exist, but the general feeling is that, if possible, they should be allowed to carry on the work of the present hospital until the new institution is ready. Possibly it will be found practicable for the new governing body to delegate its powers temporarily to the present Board of Management, so that they may be allowed to finish their work.

The epidemic of typhoid fever has entirely disappeared from Belfast, and the amount of the disease in the city at present is below the ordinary winter average. It is to be hoped that this subsidence of the epidemic will not lead to any relaxation in the much-needed work of sanitary reform.

Mr. Balfour's proposals regarding the Irish university question continue to excite the utmost interest. Dr. W. A. McKeown, who is a senator of the Royal University, and Lecturer on Ophthalmology in the Queen's College, Belfast, has been contributing a series of able letters upon the subject to the *Northern Whig*. Dr. McKeown is an uncompromising opponent of sectarian education in any form, and views the question almost wholly from this point of view. He draws attention to the very important fact, apt to be overlooked when the expressions "Catholic University" and "Presbyterian University" are used, that the medical faculty is really the predominating element in the situation. The Royal University since its foundation has conferred the degree of B.A. upon 1,571 male students, degrees in law upon 186, in engineering 221, and in medicine 1,646 students. The Queen's College, Belfast, had during the late session 398 students upon its rolls, of whom 223 were medical. It is clear, therefore, that the medical faculty outnumbers the others, and that it is fair and right that the interests of medical education should be kept steadily in view when the proposed changes are being discussed. What would be the probable effect of Mr. Balfour's proposed changes upon the Belfast Medical School? If a new university were founded in Belfast, purely Presbyterian in its spirit and *personnel*, there can be no doubt that the effect upon medical education in Ulster would be disastrous. As Dr. McKeown says with much force:

> The medical students as a rule come from a class who either know personally about universities, or obtain the knowledge. I am sure no person who knew anything of the world would allow a son, if of any ability, to take a medical degree from a university with a clerical stamp.

Many of those who favour the foundation of a Northern University in Belfast are of opinion that it should be organised upon broad academic lines, without sectarian predominance, and that it should aim not at promoting the interests of any denomination, but at the nobler ideal of developing and fostering the higher culture in Ulster. No doubt such a university would be practically a Protestant institution, but so is the present Queen's College, so that in that respect there would be no real change. It has been often said recently that the degrees of such a university would possess little practical value in the fight for existence. The reply to this confident assertion is simply that the degrees of a Northern University would possess whatever value the curriculum adopted and the thoroughness of the examinations would deserve. Belfast is a rapidly-growing city of considerably over 300,000 inhabitants. It has behind it a province with more than a million and a-half of people much disposed to embrace the advantages of university education. It possesses in the Queen's College all that is necessary as a nucleus for a university. It is particularly well provided with high schools to act as feeders for a university. To assert, in view of such facts, that a Northern University would be foredoomed to certain failure is an error. If such arguments had been held valid in the past there would never have been a Glasgow University or a Victoria University in Manchester. Those who object to a Northern University forget how grievously the Belfast Medical School feels the hardship of its present relations with the Royal University, how hostile to its independent growth and prosperity are the present conditions of university education in Ireland. It is admitted by nearly everyone that the present state of things is intolerable, and cannot be permanent. The only really practical question is whether the Royal University can be reformed so as to give its most important feeder—the Queen's College, Belfast—a reasonable share of influence and control, or whether there should be a new Northern University in Belfast, or finally whether the Belfast Queen's College should be affiliated with Trinity College, Dublin. This last solution finds favour in some quarters. It would possess certain obvious advantages, but it is very doubtful if it is really practicable, and further it would perpetuate the present subordination to Dublin of university education in Ulster—a system which is a relic of the past, and cannot by any possibility dure.

CORRESPONDENCE.

THE GENERAL MEDICAL COUNCIL AND THE SOCIETY OF APOTHECARIES.

SIR,—The profession is indebted to you for the outspoken article in which you have commented upon the Hunter case from its discreditable commencement to its unsatisfactory close. Many of us imagined that when the magisterial decision came under review in the High Court it would be made clear that Section XL was never intended to, and could not, apply to qualified practitioners. Unfortunately this point, the one most urgently requiring settlement, has been left open. Under the law, as laid down by the judges, the penalty imposed by that clause can be imposed for two distinct offences, only capable of being committed by two different classes of persons, under totally diverse conditions. In fact, the only question of any consequence whatever was never brought before the Court.

With your comments upon the inception of the case I heartily agree, except that you have put the matter far too mildly.

Unless the direct representatives take their courage in both hands, insist upon the right of the profession to know the whole history of this matter, and refuse to assent to its being further discussed *in camerâ*, the Council, in this as in previous matters, will be able to throw dust in our eyes once more, and to conceal the manner in which a minute fraction of that body has been able to drag its credit in the dust upon an initiative never sanctioned by the Council at all, and upon the true bearings of which that fraction mystified the whole of the rest of the Council, so as to induce it to assent to proceedings to which, had the facts been known, it would not have consented for a moment. The curious thing is that the fraction includes the representative of the Apothecaries' Society. It will be interesting to know how he will reconcile his action with the interests or wishes of his constituents.—I am, etc.,

Old Kent Road, S.E., Feb. 1st. EDWD. C. BOUSFIELD.

SIR,—The recent decision in the important case of Hunter *v.* Clare clearly proves that only doctors of medicine are legally entitled to style themselves physicians; a L.R.C.P., therefore, has no more right to that title than a L.S.A.; at the same time, it is satisfactory to know that, according to Mr. Justice Channell, we may call ourselves surgeons, and use the letters L.M.S. (Licentiate in Medicine and Surgery) either as a prefix or suffix to L.S.A.—I am, etc.,

February 4th. L.M.S., L.S.A.

THE GENERAL MEDICAL COUNCIL AND THE HUNTER CASE.

SIR,—In my last report to my constituents I did not discuss the merits—or rather the demerits—of the Hunter case. Now that the chaotic and highly discreditable proceedings in the Appeal Court are closed, I wish to draw attention to a few salient points on which misunderstandings may arise, and which must be kept clearly in view until they are discussed at the next session of the Council in May.

1. *The Primary Prosecution of Mr. Hunter.*—In all notices of the matter that have appeared in the various journals it has been stated that the General Medical Council prosecuted Mr. Hunter for calling himself a physician, he being an L.S.A. qualified under the Act of 1886. This statement, which has been repeated broadcast, is, as I showed in my report, untrue. The General Medical Council not only never ordered the prosecution of the late Mr. Hunter, or any other L.S.A., for calling himself a physician, but they never had the matter before them at any time. The real fact is that Mr. Muir Mackenzie and the Solicitor to the Council (Mr. Farrer) prosecuted Mr. Hunter on the charge mentioned, but we shall not be able to find out until the Council meets in May whether they did this on their own initiative, as would seem to be the case, or whether they were instigated thereto by some official of the Council.

2. *The Appeal Case.*—It was represented to the judges in the High Court when the appeal came on for hearing that Mr. Muir Mackenzie appeared there on behalf of the General Medical Council, as though the General Medical Council had

ordered the appeal case to be so contested. Though this statement was made in open court in Mr. Mackenzie's presence, he did not repudiate it, though it was wholly untrue, for the General Medical Council never had the matter of the appeal before them for discussion, and never gave any instructions for the law officers to act as they did act in resisting the appeal. This matter of the appeal has some further extremely unfavourable aspects. In the first place, the hearing of the original summons in the magistrate's court occurred early in April, but the legal officers never came to the Council at its next session in the following month of May to ask whether they were to resist the appeal; they undertook that without any authorisation from the Council. The second point is that, though the appeal case still remained unheard when the November session of the Council began, yet even then the lawyers made no attempt to come in a constitutional manner to the Council, and ask whether the Council wished the appeal to be resisted. The third point is that, when I made three attempts to have the matter discussed, my motion on the subject was stigmatised by one member as frivolous, and was disastrously resisted by the officers of the Council and Dr. Glover. By these manœuvres the officials of the Council and the legal advisers provisionally escaped the consequences of their unconstitutional conduct.

I must also remind the profession that at the November session in 1897 the Council were informed by the legal advisers that it would be well to prosecute a certain number of quacks, among whom one named Hunter was included, and was recommended by the lawyers for prosecution because he was practising under cover of an American M.D. degree. It was only when the trial of Mr. Hunter took place that most of the members of the Council learnt with indignation that a person who had been herded with quacks by the lawyers of the Council, and who was to be prosecuted for using an American M.D. degree, was, in fact, no quack at all, but a registered medical practitioner, and had been prosecuted by the lawyers, not for using an American M.D. degree, but for calling himself a physician—a totally different issue which had never been before the Council at all. It is plain that the officials of the Council hope to evade responsibility by raising clouds of mis-statements; but we may trust that the reiteration of the truth will prove once more that *magna est veritas et prevalebit*.

The character of the whole of this transaction finds a fitting sequel in the proceedings of the Appeal Court, as your readers will recognise at once from your verbatim report of what passed. From that report it may be seen that one judge was under the impression that the College of Physicians was a body which granted university degrees! and the other judge not only said that a physician was a person who practised surgery (!), but also that though a modern (that is, 1886) L.S.A. could not call himself "a surgeon," he *could* call himself "a surgeon specially licensed to practise surgery," and said further "surgeon may be a general word and physician may be a specific word." It must be plain to the meanest capacity that if learned judges are reduced to such quibbling as this the facts must have been misrepresented to them, and I think the misrepresentation that operated most powerfully in this Alice-through-the-looking-glass confusion of a trial was the misrepresentation to which I have already drawn attention, namely, that the appeal was being resisted by and on the authority of the General Medical Council. The judges doubtless concluded that the General Medical Council had very good reason for ordering such a prosecution, knew the law of the subject, the relative position of the qualifying bodies, and the meaning of its own Act. The judges did not know that a false statement had been made to them about the General Medical Council. How could they? and it is clear that under the mistaken idea that they were really hearing the views of the General Medical Council itself they delivered the judgment, the preposterous character of which is recognised on all sides.

Leaving now the technical question aside, I wish to draw attention to another evil to the profession, which is one of the immediate consequences of this monstrous act on the part of the law officers of the General Medical Council. This further sequela of the Hunter case consists in the addition to legal records of another confusing judgment on the words in Section XL of the Medical Act, 1858, which have already been such a fertile source of confusion, namely, the words "wilfully and falsely."

Also I cannot close this letter without drawing attention to the fact that Mr. Muir Mackenzie's argument led the Court to believe that the General Medical Council was of opinion that the term physician was a monopoly of the College of Physicians, and that nobody else, not even a graduate of a university, has a right to the title of physician.

Finally, Mr. Muir Mackenzie also in the Court conveyed the idea to the judges that the General Medical Council divide the medical profession (although every member of it is registered under the Act of 1886 in medicine, surgery, and midwifery) into physicians, surgeons, and apothecaries. Of course such a view as this is wholly the outcome of an archaic imagination, and has no foundation whatever in anything the General Medical Council has said or done.—I am, etc.,

Cavendish Square, Feb. 7th. VICTOR HORSLEY.

THE TITLE OF PHYSICIAN.

SIR,—The case of the late Dr. (or Mr.) Hunter seems to have opened up as fruitful a field of discussion as the oft-quoted right to the title of "Dr."

That the General Medical Council have acted most unwisely in the matter of the late Mr. Hunter most members of the profession will agree; but out of that unfortunate case has arisen the question as to who is a physician and who is not.

"L.R.C.P.Lond."[1] seems to me to have hit the nail on the head in his letter. M.D.'s, technically, are the only "Dr.'s" in a medical sense; surely the L.R.C.P.'s Lond., Edin., or Ireland are entitled to the name "physician" equally! The Irish College of Physicians in its diploma distinctly states the holder to be "a Physician and Licentiate in Medicine"; doubtless the other colleges act similarly.

I should think that an L.S.A.Lond., or L.A.H.Dub. (with a surgical qualification) was an Apothecary *and* Licentiate in Medicine, since the Act of 1886 recognised these two Apothecaries' Societies as being able to grant a medical diploma.

It is to be hoped that the General Medical Council or other competent authority will definitely decide who are "Dr.'s," "Physicians," "Surgeons," and "Licentiates in Medicine" or "Physic."—I am, etc.,

February 6th. L.K.Q.C.P.I.

SIR,—Had I been in possession of the excellent report of the Hunter appeal case which you now give, when I wrote the letter published in the same issue of the BRITISH MEDICAL JOURNAL, I should have added a few remarks on the peculiar view which the judges seem to have taken of grades or ranks in the medical profession. Allow me, therefore, to state that real distinctions no longer depend upon the titles or qualifications obtained from the examining bodies, much less has the physician that superiority over the surgeon or apothecary which ancient history assigns to him.

In olden times the physician used to send for the surgeon or leech in order that the latter might carry out an operation determined by the former, and the apothecary was little better than the dresser and dispenser. All that is changed now. All three are educated alike, and it is the general practitioner who holds the reins. In the present day the departments of medicine and surgery are held distinct, and only the general practitioner has to any considerable extent a knowledge gained by experience of the two. It is he who now calls in the specialist—physician or surgeon as the case may be—to assist him, by giving the patient the benefit of such skill as he possesses in regard to a particular small province of medicine or surgery, to which he (as specialist) has devoted himself. There are very few "all-round" consultants in these days; and woe betide the one who takes over a case to which he has been introduced by the ordinary medical attendant!

So far from the surgeon being inferior to the physician, I think it will be generally allowed that it is in the domain of the former that the greatest triumphs have been achieved. Even the immortal Jenner, though the favourite pupil of John Hunter, was a plain "country surgeon" until the discovery of vaccination made him famous, and titles and honours came thick upon him. Sir John Simon, who as medical officer of the Privy Council delivered us from the scourge of cholera, though F.R.C.S., seems to have had no other diploma. And one of the most scientific practitioners that I ever knew, and whose memory is cherished not only by myself, but by many holding high positions in the profession, was plain L.S.A.

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[1] BRITISH MEDICAL JOURNAL, p. 312, February 4th, 1899.

There is something rather grotesque, therefore, in the language adopted from musty charters by the judges in the Hunter appeal case. But the great mass of general practitioners will, I think, agree with me that their case could scarcely have been in better hands than in those of Mr. Haldane, Q.C., M.P., whose remarks were very apposite and deserving of a better result.—I am, etc.,

February 6th. M.R.C.S.ENG., L.S.A.

SIR,—I have studied very carefully your verbatim report of the Hunter case, and have had the advantage of the counsels of a friend in the legal profession. The main point in dispute, as was so constantly brought up by Mr. Justice Channell in his wail for more light, was the meaning of the term physician. Is it meant in the particular sense of a member of one of the Royal Colleges, or must it be construed in the broad, biblical, ordinary acceptation of the word—a practitioner of physic? One would have supposed that the first thing to do was to turn to the Acts themselves, and to find out in what sense the framers of those Acts used the term. Clause XXXVI of the 1858 Act (and note that it precedes Clause XL) runs as follows:

> Section xxxvi. After the First Day of[1] (January) July, One thousand eight hundred and fifty-nine, no Person shall hold any Appointment as a Physician, Surgeon, or other Medical Officer either in the Military or Naval Service, or in Emigrant or other Vessels, or in any Hospital, Infirmary, Dispensary, or Lying-in Hospital not supported wholly by voluntary Contributions, or in any Lunatic Asylum, Gaol, Penitentiary, House of Correction, House of Industry, Parochial or Union Workhouse or Poorhouse, Parish Union, or other public Establishment, Body, or Institution, or to any Friendly or other Society for affording mutual Relief in Sickness, Infirmity, or old Age, or as a Medical Officer of Health, unless he be registered under this Act; Provided always that nothing in this Act contained shall extend to repeal or alter any of the Provisions of the Passengers' Act, 1855.

Will anyone be bold enough to say that "Physician" here is limited to the sense of such holder of office being a Fellow (for it really comes to that) of one of the Royal Colleges of Physicians? If this argument be unsound, as there can surely be no doubt, we do not need to travel beyond the clauses of the 1858 Act itself to find a definition clear enough to knock the bottom out of Mr. Muir Mackenzie's whole contention.

One word more about Clause XL (and there will be much to say on this head in May) I do not believe that there was any intention on the part of the Legislature to penalise the use of any particular title as compared with another. The whole endeavour was to draw a broad distinction between the qualified and unqualified practitioner, between the registered and unregistered individual, and as far as possible every designation in ordinary use implying such qualification and registration was specifically mentioned in the clause referred to and mentioned for this purpose only.—I am, etc.,

A MEMBER OF THE GENERAL MEDICAL COUNCIL.

*** To prevent any misapprehension it seems desirable to point out that the report of the argument of counsel in the Hunter case published in the JOURNAL of February 4th though very full was not *verbatim*.

THE CHOICE OF AN ANÆSTHETIC: A DISCLAIMER.

SIR,—In endeavouring to condense the observations I made in the recent discussion on the choice of an anæsthetic at the Society of Anæsthetists, your reporter, no doubt unintentionally, has placed my views not only in a very dogmatic and aggressive, but in part in so directly distorted, a form before your readers, that I must decline all responsibility for what I am made to say in his report. I did not contend that "ether increased the dyspnœa," but stated that it acted as a violent irritant upon the respiratory mucous membranes. I did not give it as a subjective opinion that in the fatal case which I narrated in support of this statement, the patient died "mainly" from the severe complications set up by ether, but I showed, by reading *in extenso* the notes of the *post-mortem* examination, that he actually *did* die from the effects of ether, and from nothing else. I did not say that operations for the removal of adenoid growths "required" chloroform, by which dogmatic assertion I should have enrolled myself amongst those whose dogmatic statements I criticised, but I gave my reasons why I personally should continue the use of chloroform in spite of the sweeping condemnation which had recently been passed upon that anæsthetic by an American author in cases of adenoids. I did not use the aggressive expression that "in every fatal case, either the operator or the anæsthetist had been devoid of special skill," but said that, so far as I knew, with one exception which I detailed, none of these fatalities had occurred in the hands of skilful operators and professional anæsthetists.

The entire description of your reporter is, indeed, an illustration of the French proverb: "*C'est le ton qui fait la musique.*" A correct report of my statements will be given in this week's *Clinical Journal*.—I am, etc.,

Wimpole Street, Feb. 6th. FELIX SEMON.

SANITATION IN ALDERSHOT.

SIR,—As your recent article on the above subject might lead to misapprehension and some drawback to the increasing prosperity of Aldershot and its vicinity, you will, perhaps, kindly permit me, as a medical man practising in the town and employed temporarily in the camp, to write a few lines on the results of the sanitary measures and precautions adopted and enforced here during the past two or three years.

As regards the year 1895—from the army medical report of which year you have received your information—I do not intend to say much except to remark that, though diphtheria was so generally prevalent in England during the year, our mortality for town and camp was only 0.18 per 1,000 from diphtheria, and that no doubt for obvious reasons many suspicious cases were properly treated as true cases of diphtheria in the absence of a confirmatory bacteriological diagnosis, not always conveniently obtainable. I shall, however, confine my remarks to the county council reports of more recent years, when more trustworthy proofs of the efficacy of the measures adopted had had time to show themselves clearly.

Taking all cases reported in the camp and town in the years 1896 and 1897 as true cases of diphtheria, it is very satisfactory to find that the number of cases had rapidly declined since 1895 to the extent of about 45 and 60 per cent. respectively of the number reported in the year 1895. This decrease was maintained in the year 1898, and further, this percentage of disease was in reality greater if allowance were made for the rapid annual increase of the population and the number of the troops at Woking and Pirbright, from which places all infectious cases amongst the troops or their families were sent to the camp isolation hospital.

The cases in the camp alone decreased about 40 per cent. in 1896, and 70 per cent. in 1897, but the most remarkable decrease was in 1898, when the decrease was more than 90 per cent. of the number reported in the year 1895.

These figures speak for themselves, and when it is realised how many children there are in the camp and town of Aldershot aggregated in schools within a certain limited area, undoubtedly a prime factor in the spread of epidemic disease[1]; again, when it is realised that Aldershot and the Camp are comparatively new places, the former containing an exceptionally high ratio (gradually diminishing) of poor to well-to-do people as compared with other towns of smaller size and population, the latter containing the largest number of troops in the United Kingdom whose families necessarily live in close quarters, mixing freely with each other, it will be readily understood how difficult it is to control the spread of an epidemic disease. It is consequently all the more praiseworthy that the camp authorities and the Aldershot Urban District Council have, by the salutary measures they have adopted and enforced, not only had the satisfaction of decreasing the number of cases of diphtheria, but have helped undoubtedly to reduce the death-rate by about 2 per 1,000 since 1895, a death-rate about 10.2 per 1,000, almost the lowest in the 39 districts included in the administrative County of Southampton, the camp alone showing of course a much lower death-rate on account of the number of people of the more vital ages.

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[1] July was substituted for January by the Medical Act, 1859.

[1] See Report to London County Council by Mr. Shirley Murphy, 1894.

I can therefore safely say that the district of Aldershot is a particularly healthy one, and now that the Aldershot Urban Council are eagerly experimenting and gradually adopting the more recent scientific methods and discoveries as regards the treatment and disposal of sewage, with the isolation hospital just completed, one may confidently expect to see the number of cases of diphtheria reduced to a minimum and the death-rate brought even lower than it is at present.—I am, etc.,

W. MOYLE O'CONNOR, M.A., M.D., D.P.H.

Lyndhurst, Aldershot, Feb. 7th.

MANCHESTER WAREHOUSEMEN AND CLERKS' PROVIDENT ASSOCIATION.

SIR,—In the BRITISH MEDICAL JOURNAL of January 14th you published an admirable letter from Dr. A. W. Senior, under the heading of "Consultants for Medical Aid Associations." I know from Dr. Senior himself what I had inferred from his letter—that his criticisms were intended to be applied to the above Society; and since I sympathise with his efforts to place it on a more equitable basis with regard to the profession, I shall be glad of an opportunity for extending his remarks.

This Society was established in 1855, and is now registered under the Friendly Society Act. In all points except its relation to the medical profession it appears to be an admirable one.

All persons are "eligible to become members who are above 18 and not above 50 years of age, and who at the time of their application shall be employed, and shall have held their situations at least one month, either as traveller, buyer, salesman, warehouseman, cashier, clerk, or bookkeeper, in any warehouse, bank, assurance office, solicitor's office, railway office, public institution, or engaged in any of the above occupations in any professional or retail establishment, or clerk in any establishment in Manchester and within a circuit of six miles of the Royal Exchange, and any commercial traveller who has been a householder within the same limits twelve months or upwards, and engaged on salary."

The only wage or income limit is one which is intended to prevent any person whose income is less than 20s. per week from becoming a member of the Society; and yet this is about the only person one would have thought to have had much claim upon the consideration of the profession.

Dr. Senior's remarks were chiefly directed against the fact that this Society is kept up by "advertising and canvassing," and that consultants allowed their services to be obtained by the members at reduced terms. With regard to the consultants, what is really objected to is this—not that deserving members should be able to get special advice at reduced terms, but that all members should be able to get it for nothing. Because (unless I am misinformed) it is not the patients, whether rich or poor, who pay the consultant's fees. These are paid on a "reduced" scale by a Society which has a reserve fund of £32,000; and the fact that "special" advice and consultants' "opinions" can be had for nothing is used as a powerful argument in canvassing new members, clearly to the injury of the private practitioner. But if it be improper for consultants to be connected with this Society, what is to be said of the dozens of general practitioners, many of them amongst the best known in their districts, who allow their services to be claimed by its members for 4s. per annum? According to the official syllabus, there are sixty districts within six miles of Manchester, including all the best residential areas, where "surgeons are provided" by this Society. What feeling other than contempt can a buyer or salesman on 'change, or a commercial traveller, or a bank cashier have for a professional man whose services can be commanded on such miserable terms? Clearly the proper thing to be done is to restrict the medical benefits by an income limit, and to raise the charge for medical attendance to at least 8s. per annum, which is, I am informed, the rate for attendance on the Post Office officials, in whose case also the medical benefits are limited to those whose salary is below a certain standard.—I am, etc.,

R. HANSON WOLSTENHOLME, M.R.C.S., L.R.C.P.Edin.

Salford, Jan. 30th.

THE EARLY TREATMENT OF INCIPIENT INSANITY.

SIR,—I am glad to see this subject is being ventilated in your columns. At the annual meeting of the Association in 1896 Dr. H. Rayner opened a discussion upon the Certification of Insanity in Relation to the Medical Profession. Among other points he laid particular stress upon the legal delays, and the social and medical objections and difficulties which arose in bringing cases of early mental disorders under treatment. In the discussion which followed I advocated the promulgation of a scheme to obviate these difficulties in dealing with such cases. I mean especially those cases in which there could be no difficulty in recognising the mental disorder, but in which the difficulty of certification was a bar to bringing the patient legally under the care and control necessary for his successful treatment. The plan I ventured to suggest was that where the insanity of the patient was in doubt or undeveloped it should be made legally possible for him to be placed under care and treatment in a doctor's house or elsewhere upon the application of a relative or friend to a magistrate for a judicial order; such application to be accompanied by a written medical opinion in support of it empowering the detention of the patient for a specified time. By following this course in many instances certificates would be avoided by the recovery of the patient, and in others by the development of the disease all doubt would be cleared away, and certification when inevitable could be procured without difficulty. In this view I was very strongly supported by Dr. Yellowlees and other speakers, who referred to the fact that the very provision I advocated was already in force in Scotland, that it was of the greatest value, and that it worked without difficulty. Some such addition as this to our lunacy law would prove of inestimable value to the community and would do away with much of the so-called illegal detention complained of.—I am, etc.,

Margaret Street, W., Feb. 6th. T. OUTTERSON WOOD, M.D.

A DEGREE FOR DOUBLY QUALIFIED MEN.

SIR,—Permit me to deny emphatically that the B.Ch. of T.C.D. is a "watering of capital." It is obtainable only after an examination corresponding in stringency to that for the M.B.

On the general question I should like to say that a degree in Medicine, unless accompanied by a degree in Arts or Science, is of no more value in the eyes of thinking people than an ordinary licence.—I am, etc.,

FITZGERALD ISDELL, M.A., M.D.

Shaftesbury Avenue, W.C., Feb. 3rd.

OBITUARY.

JOHN HAYBALL PAUL, M.D.ST. ANDREWS, F.R.C.S.ENG., ETC.

A NOTABLE member of the profession in South London, Dr. J. H. Paul, of Camberwell House Asylum, and The Terrace, Camberwell, died at the latter place on January 29th, aged 83. Born in the Isle of Wight, he was educated at a private school, and afterwards apprenticed to Dr. Newington in Spitalfields. He received his medical education at the Westminster and St. Bartholomew's Hospitals, and became M.R.C.S. in 1840 and L.S.A. in 1845. He obtained the degree of M.D.St. Andrews in 1854, and became F.R.C.P.Edin. in 1858, and M.R.C.P.Lond. and F.R.C.S. Eng. in 1859. He went to Camberwell House in 1846, and for upwards of half a century led a busy and useful life in that establishment. There were also several other objects in which he was keenly interested. He was one of the founders of the Medico-Psychological Association, and at the time of his death was Emeritus Treasurer of the Association. He served as Treasurer from 1864 to 1895, and on his retirement from the post was presented by the President, Dr. Nicholson, on behalf of the members, with a silver bowl and an illuminated testimonial. He was also Treasurer of the St. Andrews Graduates' Association from its formation. He was founder, with the late Dr. Hassall, of the Royal National Hospital for Consumption, Ventnor, and a member of the committee until his death. He was also a Governor of Bethlem Royal Hospital, and an old and esteemed Freemason, having held high rank in the craft. He had recently suffered for some months from renal disease, and never recovered from the death of his wife, which took place three months ago. He was universally esteemed and beloved by all with whom he came in contact.

The funeral took place at Norbiton Cemetery on February 2nd.

LUKE FISHER, M.D.St.And., M.R.C.S.Eng., L.S.A.

Dr. Fisher, who died on January 30th at his residence, Lytham, Lancashire, in his 59th year, was highly esteemed by all sections of the community in Lytham and its neighbourhood. He was born at Whittle-le-Woods, Lancashire, and was the son of the Rev. J. Fisher, who for forty-six years was Vicar of Heapey. He received his professional education at Charing Cross Hospital, and became L.S.A. in 1861, and M.R.C.S.Eng. and M.D.St. Andrews in 1862. For two years he was House-Surgeon to the Preston Dispensary, and in 1864 went to reside at Lytham, where he was at first the partner of Dr. Gradwell. He gradually acquired a very extensive practice, from which he retired only last year. He grudged no service that he could render to Lytham or its people.

In 1865 he was gazetted Assistant Surgeon to the local volunteer corps; in 1868 became Assistant Surgeon to the battalion, in 1877 Surgeon, in 1885 Honorary Surgeon-Major, and in 1889 Surgeon-Major. In 1891 he resigned his commission, and was permitted to retain his rank (Lieutenant-Colonel), and to continue to wear the uniform of the battalion on his retirement. In 1865 he was appointed Admiralty Surgeon and Agent, and held the post until his death. He was also Parochial Medical Officer and Public Vaccinator for the Lytham District from 1865 for seventeen years, when he was elected Medical Officer of Health, which post he held for seven years. Amongst other offices that he held were those of Honorary Secretary of the local Cottage Hospital, Medical Attendant to the Seaside Home for City Children and to the Home of Rest, Chairman of the Lytham Urban District Council, and Chairman of the Lytham Ratepayers' Association.

He had been ill for a few weeks, and eight days before death he had a severe paralytic seizure. For some days improvement ensued, but a second seizure was rapidly fatal. He was married in 1865 to Miss Agnes Rowlandson, daughter of the Vicar of Whittle; and this lady, with three daughters and a son, survive.

The funeral took place at the parish church, Lytham, on February 1st, and was accompanied by signs of the widespread respect entertained for the deceased.

WILLIAM TASKER LUNDIE, M.A., B.Sc., M.D.Edin.

To the regret of a wide circle of friends, a career of much promise was cut short by the death of Dr. William Tasker Lundie of Edinburgh.

Dr. Lundie was born at Auchterarder, Perthshire, in February, 1855, where his father was Master of the Sheddan Trust School. As it was intended that he should follow the teaching profession, he entered the Free Church Training College in Edinburgh in 1873, and thereafter had some experience in teaching at Larkhall Public School. Returning to Edinburgh as one of the staff of George Watson's Ladies College, he found time to attend the University Arts Course, and, subsequently, the Science Classes, graduating as M.A. in 1883 and B.Sc. in 1886. Having been strongly drawn towards the study of medicine, on closing his term of service at Watson's Ladies College, he entered with much enthusiasm on his medical studies, and graduated M.B., C.M. in 1888. He received the appointment of House Surgeon in Craiglockhart Poorhouse, and after two years' experience there, he started the practice of his profession in Edinburgh in May, 1890. Since that time, by diligence and devotion he built up a steadily-increasing practice, the claims of which proved too exacting for a physical frame by no means robust. In 1893 he took the degree of M.D., his thesis being on Neuropathic Œdema. Dr. Lundie held the post of Chloroformist to the Edinburgh Dental Hospital.

Though for the last year or so his friends were apprehensive that he was overtaxing his strength, and saw ominous signs of growing exhaustion, Dr. Lundie kept bravely to his work till prostrated by an attack of subacute rheumatism in August, 1898. On recovery, an attempt to resume his work was followed by an entire breakdown. Rigors and high temperature supervened, and signs of acute tuberculosis developed. After fifteen weeks of great weakness and prostration, borne with much patience, the end came on January 28th.

Dr. Lundie was a man of lovable and genial disposition, and of high Christian character. He was an elder in Argyle Place U. P. Church, where he was held in high esteem by pastor and fellow members. He was married in 1895. His illness and death have evoked many and widespread tokens and regret and of sympathy for his widow and children, as also for his aged parents.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Dr. Pedro Izquierdo, Professor in the Medical Faculty of the University of Madrid; Dr. August Socin, Professor of Clinical Surgery in the University of Basel, aged 62; Professor Wolffhüger, of Göttingen, the eminent hygienist; Dr. Josef Finger, Emeritus Professor of Clinical Medicine at Lemberg, aged 80; Dr. Thomas, formerly a member of the French Chamber of Deputies, and Professor in the Medical School of Rheims, aged 73; and Dr. Emil Schiff, well known as a populariser of the researches of Helmholtz and Dubois-Reymond, and for his reports of medical and scientific congresses, aged 50. Dr. Schiff was the Berlin correspondent of the *Neue Freie Presse* of Vienna.

ROYAL NAVY AND ARMY MILITARY SERVICES.

ROYAL VICTORIA HOSPITAL, NETLEY.

The distribution of prizes to the surgeons on probation for the Royal Army Medical Corps and the Indian Medical Service by Sir Ralph H. Knox, K.C.B., Permanent Under Secretary of State for War, took place on January 31st before a large gathering of distinguished medical and other officers.

Colonel Notter read the following returns, showing that the whole of the surgeons on probation who had been studying at Netley had passed both the London and Netley examinations, and had been granted their commissions.

Royal Army Medical Corps.

	Combined Marks.		Combined Marks.
H. P. W. Harrow	5,047	W. B. Winkfield	4,147
J. E. Hodgson	4,796	T. C. Lauder	4,044
A. L. Scott	4,673	J. W. Leake	3,925
L. E. L. Parker	4,607	J. W. H. Houghton	3,828
J. G. Gill	4,541	D. E. Crume	3,805
G. W. G. Jones	4,383	H. S. Taylor	3,803
M. H. G. Fell	4,321	G. M. Goldsmith	3,632
G. H. Goddard	4,280	R. H. Lloyd	3,534

Nominated Surgeons on Probation.

	Netley Marks.		Netley Marks.
D. S. Harvey	2,619	H. D. Packer	1,993
J. M. Sloan	2,545	L. Humphrey	1,946
H. E. Haymes	2,532	R. S. Rodger	1,912
F. J. Brakenridge	2,500	W. W. Scarlett	1,788
G. C. Phipps	2,271	H. K. Palmer	1,716
N. J. C. Rutherford	2,269	A. O. B. Wroughton	1,713
G. J. A. Ormsby	2,192	F. Ashe	1,635

Indian Medical Service.

	Combined Marks.		Combined Marks.
J. C. H. Leicester	6,387	J. N. Walker	4,222
H. Innes	5,964	V. H. Roberts	4,221
W. S. Willmore	5,559	J. E. Robinson	4,186
A. E. Walter	5,104	C. H. B. Adams	4,163
C. Hudson	5,029	G. King	4,082
L. T. R. Hutchinson	5,014	T. S. Ross	4,027
C. F. Weinman	4,833	G. P. T Groube	3,872
H. M. Cruddas	4,792	P. P. Atal	3,827
A. M. Fleming	4,368	W. McM. Pearson	3,779
E. L. Ward	4,341	D. C. Kemp	3,764

The prizes were awarded for marks gained in the special subjects taught at the Army Medical School, and the Herbert prize of £20, Martin Memorial medal, the de Chaumont prize in Hygiene, and the 2nd Montefiore prize were gained by J. C. H. Leicester; 1st Montefiore prize of 20 guineas and medal, by H. Innes; the Parkes Memorial medal, by A. L. Scott; the Maclean prize for Clinical and ward work, by L. T. R. Hutchinson; the Pathology prize, presented by Surgeon-General Hooper, C.S.I., by D. S. Harvey.

As usual, the probationers for the Indian Medical Service showed higher totals than those for the Royal Army Medical Corps in the combined marks gained at the London and Netley examinations, but the superiority in this respect was less conspicuous than in past years.

The Indian also carried off the bulk of the prizes, but the pathology prize fell to one of the nominated candidates for the Medical Corps, a fact to which Sir Ralph Knox drew pointed attention. On this occasion there were also no rejections at Netley, but all the 50 probationers passed, which is a matter for congratulation.

Sir Ralph Knox made a very admirable and sympathetic address to the probationers. He declared he not only had great knowledge of the medical services, but had acquired in his official position a warm interest in them, although, as he said in a humorous vein, his chief function had been to see how few men could do the work of the army, and at how low a rate gentlemen could be induced to come and do that work. Sir Ralph very emphatically declared that the officers of the Royal Army Medical Corps were soldiers as well as surgeons, so that they had the twin high ideals of a medical and military life to live up to. He also asserted that in these days of long-range projectiles, all, whatever their immediate functions, who were in touch with an army in action anywhere near the front, carried their lives in their hands, almost equally with those in the fighting line. The risks, indeed, to non-combatants were becoming nearer and nearer to those of the combatants.

Sir Ralph's address was ably supported in the remarks of Surgeon-General Jameson, Director-General, Army Medical Service.

We may congratulate both the Home and Indian services on receiving the fifty promising officers who have just passed through Netley; and we trust the past session will prove the dawn of a brighter period in the medical services.

The gentlemen nominated to the Royal Army Medical Corps by the public bodies seem to have quite met the expectations placed in them.

ARMY MEDICAL STAFF EXCHANGE.

The charge for inserting notices respecting Exchanges in the Army Medical Department is 3s. 6d., which should be forwarded in stamps or post office order with the notice, not later than Wednesday morning, in order to ensure insertion in the current issue.

MAJOR, R.A.M.C., just home on completion of foreign tour, is willing to exchange to a colony for whole or part tour. Address, giving full particulars, to Domani, care of Messrs. Holt and Co., 3. Whitehall Place.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: HUGH W. MACNAMARA, Staff-Surgeon, to Chatham Hospital, January 31st; JOHN L. BARRINGTON, Staff-Surgeon, to the *Boscawen*, January 31st; THOMAS E. H. WILLIAMS, Fleet-Surgeon, to the *Defiance*, February 1st; WALTER G. AXFORD, Staff-Surgeon, to the *Pylades*, February 14th; ROBERT H. MORNEMENT, Surgeon, to the *Vivid*, for disposal, February 1st; HAROLD HUSKINSON, M.B., Surgeon, to the *Boscawen*, for the *Agincourt*, February 1st; RICHARD F. CLARK, Surgeon, to the *Niobe*, February 1st; EDWARD J. BIDEN, Staff-Surgeon, to the *Orlando*, February 16th; WILLIAM M. LORY, Staff-Surgeon, to the *Aurora*, February 16th; BASSETT C. E. F. GUNN, Staff-Surgeon, to the *Repulse*, February 16th; EDWARD C. WARD, M.D., Staff-Surgeon, to the *Penguin*, undated; ERNEST S. REID, M.B., Surgeon, to the *Orlando*, February 16th; EDWARD E. POWER, Surgeon, to the *Aurora*, February 16th; REGINALD ST. G. S. BOND, M.B., Surgeon, to the *Collingwood*, February 16th; ARCHIBALD W. CAMPBELL, M.B., Surgeon, to the *Royal Arthur*, February 1st.

ROYAL ARMY MEDICAL CORPS.

CAPTAIN JULIAN P. S. HAYES is promoted to be Major, January 30th. His first commission dates from January 30th, 1886.

Lieutenants FREDERICK S. BRERETON, JOHN C. B. STATHAM, ROBERT M. LE H. COOPER, M.B., EDWIN C. HAYES, PERCY J. PROBYN, ANTHONY M. WARING, ARTHUR W. HOOPER, WILLIAM A. WARD, and EDMUND G. FORREST, M.B., having completed three years' full pay service, are promoted to be Captains, January 29th.

Captain ROBERT CALDWELL is promoted to be Major, January 31st. He was appointed Surgeon-Captain, January 31st, 1885, and served with the Soudan Frontier Field Force in 1885-86, receiving the medal and Khedive's bronze star. He has also the bronze medal of the Royal Humane Society for assisting to save a private of the Black Watch from drowning in the river Nile at Korti on October 28th, 1885.

ARMY MEDICAL RESERVE.

SURGEON-LIEUTENANT ALEC PHILLIPS, the Manchester Companies Volunteer Medical Staff Corps, to be Surgeon-Lieutenant, February 4th.

INDIAN MEDICAL SERVICE.

COLONEL D. O'C. RAYE, M.D., Bengal Establishment, retires from the service from April 2nd next. Appointed Assistant Surgeon, March 31st, 1866, he became Surgeon-Colonel, April 2nd, 1894, and was made Honorary Surgeon to the late Governor-General of India in January, 1894. He was Inspector-General of Civil Hospitals in the Punjab, but has been on furlough since August 10th last.

Captain J. G. HULBERT, Bengal Establishment, has been appointed Personal Assistant to the Principal Medical Officer, Bengal Command, in succession to Captain R. H. Maddox, whose services have been transferred to the Civil Department.

THE VOLUNTEERS.

THE following have resigned their commissions from February 8th: Surgeon-Lieutenant E. J. WEIGHTMAN, M.B., 4th Volunteer Battalion the Cheshire Regiment; Surgeon-Captain H. KELLY, M.B., 1st Volunteer Battalion the Highland Light Infantry; Honorary Assistant-Surgeon D. HAIG, 4th (Stirlingshire) Volunteer Battalion Princess Louise's Argyll and Sutherland Highlanders.

EXTRA MEDICAL CHARGES, INDIA.

THE Government of India have decided that an officer of the Indian Medical Service already holding charge, shall, when placed in additional charge of Imperial service troops on field service be remunerated as follows: Rs.85 a month for the charge of a regiment of infantry or cavalry with a strength of not less than 600 and 500 respectively; Rs.65 per mensem for the charge of a wing of a regiment of infantry or cavalry of the above strength, or a whole regiment, provided the numbers actually present are not less than 300 or 250 respectively; Rs.75 per month for charge of a detachment of all arms of a strength not less than 380 men; and Rs.25 a month for the charge of a battery of artillery or a company of sappers. It has further been decided that the above ruling shall have retrospective effect, so as to cover any cases which may have occurred during the frontier operations 1897-98.

A NEW STATION HOSPITAL.

A NEW Station Hospital will be opened shortly in Edinburgh Castle. The *Army and Navy Gazette* very opportunely suggests that the word "military" or "army" should be substituted for "station" as a prefix to a hospital for military patients.

CONVALESCENTS IN INDIA.

THE system under which it is sought to send out convalescent soldiers into small camps, or move them for change of air from one station to another is being gradually introduced in India in the Bengal Command. It promises to be very successful, and extra grants for money will probably be made to extend it.

STAFF OF THE GOVERNOR-GENERAL OF INDIA.

THE following appointments have been made on the personal staff of the Governor-General of India from January 6th: To be Surgeons:—Lieutenant-Colonel E. H. FENN, C.I.E., R.A.M.C. To be Honorary Assistant-Surgeons: Assistant-Surgeon E. MACKENZIE, Bombay; Assistant-Surgeon C. A. LAFRENAIS, Madras. To be Honorary Surgeons: Surgeon-General R. HARVEY, M.D., C.B., D.S.O., I.M.S.; Colonel D. O'C. RAYE, M.D., I.M.S.; Colonel D. SINCLAIR, M.B., C.S.I., I.M.S.; Lieutenant-Colonel A. J. WILLCOCKS, M.D., I.M.S.; Lieutenant-Colonel S. H. BROWNE, M.D., C.I.E., I.M.S.: Colonel W. P. WARBURTON, M.D., C.S.I., I.M.S.; Surgeon-General W. S. M. PRICE, A.M.S.; Lieutenant-Colonel G. D. BOURKE, R.A.M.C.

VOLUNTEER MEDICAL ASSOCIATION.

THE next class of instruction of the Volunteer Medical Association for the Proficiency Examination will commence in the middle of February: all information can be obtained from Surgeon-Captain Harper, 25, Rosary Gardens, South Kensington, S.W.

VOLUNTEER MEDICAL STAFF CORPS.

SURGEON-CAPTAIN F. J. L. WARWICK, M.B., from the 1st Tower Hamlets Volunteer Rifle Corps, to be Surgeon-Captain in the London Companies, February 4th.

MEDICO-LEGAL.

A CONSCIENTIOUS OBJECTOR AND HIS OBJECTION.

ON January 27th an application was heard in the Divisional Court (Queen's Bench Division) for a rule nisi for a mandamus to compel the stipendiary magistrate for Sheffield to hear and determine an application for exemption under the Vaccination Act, 1898. An affidavit made by the learned magistrate was read to the Court. It was there stated that exemption had been refused on the ground that there was no evidence of the existence of a conscientious belief in the mind of the applicant that the operation would be prejudicial to the child's health. There was evidence that the applicant had some objection to the operation, as it would cause the infant unnecessary pain.

Mr. Schultess Young submitted that it was no part of the magistrate's duty to make inquiries as to the reason why the parent or other person entertained a particular opinion. In this case the magistrate did not hear and determine the case as he ought to have done.

Mr. Justice Channell observed that it had to be shown that the magistrate had not heard an application. The Court had no power to grant a mandamus to a magistrate to be satisfied when in fact he was not.

Mr. Young urged that the magistrate had no right to make the remarks which he made at the hearing, and that the statement by the child's father that he objected to the operation as causing unnecessary suffering was sufficient evidence of a conscientious objection.

Mr. Justice Channell said a mere pin prick could not be said to be prejudicial to the child's health. Even assuming that all the magistrate said was nonsense, he had heard and determined the case.

Mr. Justice Lawrance thought that the magistrate should have been asked to state a case.

Mr. Young replied that the magistrate had no right to express reasons why he did not grant the certificate.

In the event the Court refused the application, both of the learned Judges saying that the magistrate had only to hear and determine, and that he had done his duty in this case.

THE L.R.C.P.LOND.

"**Query**" asks whether the holder of L.R.C.P.London (1897) can hold the appointment of Poor-law medical officer under the Local Government Board in a Scotch parish, and if the above qualification is a double qualification.

⁂ If the holder of this qualification is on the *Register* he can hold this appointment. It would appear that the College of Physicians is enabled under its charter and statutes to grant a licence to practise both in medicine and surgery.

A QUESTION OF ETHICS.

A Member B.M.A. asks whether it is "a greater sin" to report unqualified practice or leave things to take their own course.

⁂ We do not consider that there is any duty on a medical man to take action against unqualified practitioners. At the same time such action in well-founded cases if of undoubted benefit to the community at large.

CONTRACTS NOT TO PRACTISE WITHIN AN AREA.

Surgicus states that he signed a bond with the following clauses—namely, not to start practice within 10 miles of a certain borough for 10 years at a penalty of £10 per month. "Surgicus" says now that several persons have asked him to start in the neighbourhood, and he wishes to know if the aforesaid bond would interfere with him under the circumstances.

⁂ Our correspondent does not state his case very clearly, but we consider that if he received some valuable consideration for signing the bond he could undoubtedly be restrained by injunction from practice within the limit mentioned, and would also render himself liable for damages for breach of the bond. He should, however, consult a solicitor.

A SPECIAL CASE.

"**Army Medicus**" asks whether he as a retired Deputy-Surgeon-General of the Indian Medical Service can practise in England and give evidence in the courts though unregistered, having entered the public service in 1854. Our correspondent also asks if the General Medical Council has ever acted on Section XLVI, of the Medical Act 1858, by which the Council is empowered to exempt army medical officers from such provisions of the Act as the Council shall think fit. Our correspondent further states that one or two unregistered practitioners have set up in his neighbourhood and wishes to know whether the Council will yield protection and enforce prosecution.

⁂ We observe that our correspondent writes from the Isle of Man to which place the provisions of the Medical Act 1858 do not apply. If our correspondent however wishes to practise in England we should certainly advise him to take advantage of the section he mentions. There is, we understand, no difficulty in obtaining the exemption from the Council in a proper case, though as a matter of fact very few applications have been made. We are unable to say what (if any) repressive measures can be taken against unregistered persons under the Manx laws.

CONTRACTS NOT TO PRACTISE.

Alpha sends the following: A.B. signs an agreement that he shall not practise as a physician or a surgeon within a certain district. Does this clause debar A.B. from accepting an appointment as medical officer of health over an area in which the said district is included?

⁂ Courts of justice are inclined to scrutinise contracts which have the effect of debarring a man from the free exercise of his profession very closely, and to construe them strictly. If the appointment in the present case be a whole time appointment, then inasmuch as the duties of a medical officer of health do not appear to involve active practice as a physician or surgeon, A. B. might probably accept the appointment, but he should consult his solicitor.

THE TITLE OF DR.

A. J. S.—The use of the title "Dr." by Licentiates of Colleges in the way mentioned by our correspondent is, strictly speaking, improper, but we doubt whether our correspondent would be well advised in taking the step he proposes.

MEDICAL TITLES.

O. R. F.—We apprehend that our correspondent's question could only be settled by an action at law, should the point ever arise.

A.R.H.—The executors of the deceased man would probably have a good cause of action in this case, and could obtain an injunction, but proper legal advice should, of course, be obtained.

Inquirer.—A medical man, though acting in the capacity of a *locum tenens*, is not within the provisions of the Employers Liability Act, 1881, or the Workmen's Compensation Act, 1897, under which statutes in certain cases workmen are entitled to compensation for injuries.

Shorthand for Paris Medical Students.—Under the patronage of the Association des Etudiants de Paris Dr. Laporte has started a series of courses of instruction in shorthand for students.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

Benefactions.—In addition to the two gifts of £10,000 each from the Duke of Devonshire and Messrs. Rothschild, Mr. B. L. Cohen has promised £3,000 to the Benefaction Fund, and a number of smaller sums have also been received as a result of the formation of the University Association. Sir Walter Gilbey, the Drapers' Company, the Board of Agriculture, and a number of County Councils have promised contributions amounting to over £20,000 for the establishment of a department of Agricultural Science.

Pharmaceutical Chemistry.—The Special Board for Medicine have revised the schedule of the examination in this subject to bring it into accord with the *British Pharmacopœia, 1898.* The new schedule is as follows: The examination will be practical, and the questions set will have reference to—1. The chemical principles involved in the preparation of the following substances: Reduced iron, mercury with chalk, lithium citrate, potassium iodide, mercurous chloride, mercuric chloride, calcium hypophosphite, arsenical (Fowler's) solution, hydrochloric solution of arsenic, sulphurated lime, iron phosphate, strong solution of ferric chloride, bismuth oxynitrate, strong solution of lead subacetate, tartarated antimony, iron and ammonium citrate, ammoniated mercury. 2. The chemical reactions characteristic of the following substances: Solution of trinitrin, amyl nitrite, chloral hydrate, iodoform, hydrocyanic acid; the alkaloids atropine, brucine, codeine, morphine, quinine, strychnine, and caffeine; phenol, beta-naphthol, salicyclic acid, salol; gallic acid, the tannins of galls and catechu; salicin; acetanilide, phenacetin, phenazone. 3. The chemical incompatibilities of drugs as illustrated by the interaction of iron salts with arsenical solutions, alkalies with mercurial preparations, acids with sulphurated lime, acids and oxidising agents with potassium iodide, and astringent solutions with alkaloids. 4. The estimation by volumetric methods of arsenic and antimony in given solutions, of chlorine in chlorinated lime, of hydrocyanic acid in cherry-laurel water and other solutions, of iron in reduced iron and iron phosphate, of nitrites in solution of ethyl nitrite and spirit of nitrous ether, and of citric and tartaric acid in given solutions, standardised solutions being provided. 5. The characters of the foregoing substances, and the physical and chemical tests for them and for their usual impurities.

Degrees.—At the Congregation on February 2nd, the following were admitted to the degrees of M.B. and B.C.:

F. H. Maturin, B.A., Caius; G. E. Harthau, B.A., Jesus; A. E. Harrisson, B.A., Magdalene; P. T. Sutcliffe, B.A., Emmanuel; H. C. Thorp, B.A., Emmanuel.

UNIVERSITY OF LONDON.

Intermediate Examination in Medicine.—The following candidates have satisfied the Examiners:

Entire Examination.—First Division: A. D. Hamilton, University College, Liverpool; H. W. James, University College, Cardiff, and St. Bartholomew's Hospital; P. Savill, University College. Second Division: H. M. Brown, St. Mary's Hospital; Janet Mary Campbell, London School of Medicine for Women; C. E. C. Child, Charing Cross Hospital and Birkbeck Institute; E. M. Clarke, University College, Cardiff; Olive Claydon, London School of Medicine for Women; G. T. Collins, Guy's Hospital; L. A. E. De Zilwa, B.Sc., University College; H. B. Foster, Guy's Hospital; L. C. Johnson, University College, Liverpool, and Owens College; H. C. Keates, Guy's Hospital; C. E. Lakin, Middlesex Hospital; R. E. Lloyd, B.Sc., University College; H. Love, St. Bartholomew's Hospital; F. J. A. Mayes, University College; J. S. New, University College; J. E. Sparks, University College, Bristol; Louisa Spicer, London School of Medicine for Women; A. E. Thomas, St. Bartholomew's Hospital; V. F. Wall, St. Mary's Hospital.

Excluding Physiology.—First Division: M. A. Collins, Guy's Hospital. Second Division: A. M. Amsler, St. Bartholomew's Hospital; A. H. Bradley, Mason University College; A. H. Bygott, Queen's College, Birmingham; W. J. Davies, Guy's Hospital; H. A. Ehrlich, Guy's Hospital; D. C. Evans, University College, Cardiff; G. Evans, Guy's Hospital; E. F. Fisher, London Hospital; Bessie Marion Gilford, Royal Free Hospital and Birkbeck Institute; A. C. H. Gray, Guy's Hospital; P. G. Harvey, St. Bartholomew's Hospital; B. W. Jones, Mason University College; W. H. Jones, London Hospital; C. B. Penny, Guy's Hospital; Marie Louise Pethick, London School of Medicine and Royal Free Hospital, H. H. Raw, St. Bartholomew's Hospital; E. F. Reeve, Guy's Hospital; W. M. Robson, Guy's Hospital; Emily Gertrude Stuart, London School of Medicine and Royal Free Hospital; G. O. Taylor, London Hospital; D. H. Trail, Guy's Hospital; A. B. Waller, London Hospital; Winefred F. Wigglesworth, London School of Medicine and Royal Free Hospital; A. E. F. Wilkes, Queen's Faculty of Medicine, Birmingham.

Physiology Only.—First Division: H. F. W. Boeddicker, Mason University College; A. Caddy, St. George's Hospital; D. Ellis, London Hospital; A. H. John, St. Bartholomew's Hospital; R. A. Lloyd, St. Bartholomew's Hospital; E. C. Mackay, St. Bartholomew's Hospital; Annie Mooney, London School of Medicine for Women; S. J. Ormond, Guy's Hospital; A. Pearson, Guy's Hospital; A. C. Ransford, Guy's Hospital; A. S. Woodwark, St. Bartholomew's Hospital. Second Division: J. C. M. Bailey, St. Bartholomew's Hospital; E. W. Bain, London Hospital; H. C. Barlow, Westminster Hospital; F. J. Birks, University College, Sheffield; N. Carpmael, St. Thomas's Hospital; F. G. H. Cooke, Cooke's London School of Anatomy; D. Forsyth, Guy's Hospital; J. S. Gayner, St. Bartholomew's Hospital; S. B. Green, St. Bartholomew's Hospital; A. C. Haslam, St. Thomas's Hospital; E. T. Jenson, Guy's Hospital; O. Marriott, Guy's Hospital; T. A. Matthews, Guy's Hospital; W. P. Panckridge, Middlesex Hospital; A. C. Parsons, St. Thomas's Hospital and King's College; M. J. Rees, Guy's Hospital; C. H. D. Robbs, St. Bartholomew's Hospital; J. J. S. Scrase, St. Bartholomew's Hospital; D. W. Smith, Edinburgh University and Guy's

Hospital; J. H. Stormont, Mason University College: F. G. Thompson, St. Mary's Hospital; W. A. Trumper, St. Mary's Hospital.

Preliminary Scientific Examination.—The following candidates have satisfied the Examiners:

Entire Examination.—First Division: D. Isaacs, University Tutorial College. Second Division: R. A. Fuller, Merchant Venturers' College, Clifton Laboratory, and private study; G. F. Jones, University College and private study.

Chemistry and Experimental Physics. *W. Bain, Private study and Middlesex Hospital; W. H. Barnett, Cranleigh School and University Tutorial College; *Helen Chambers, Newnham College, Cambridge, and private study; *A. J. Edmonds, Owens College; *Olive Muriel Elgood, Birkbeck Institution; *Kate Knowles, University College, Nottingham, and University Tutorial College; *C. L. Lakin, Charing Cross Hospital; *A. R. Neligan, St. Bartholomew's Hospital and private tuition; *W. P. Walker, London Hospital; *A. D. White, St. Bartholomew's Hospital and private study.

Biology.—*H. H. Bashford, London Hospital; *Alice Marian Benham, University Tutorial College; L. C. Blackstone, University and University Tutorial Colleges; G. P. C. Claridge, St. Mary's Hospital; *W. B. Clark, King's College; *H. D. Clementi-Smith, St. Paul's School and private tuition; *Helen Mary Collen, University Tutorial College and private study; *C. Colmer, London Hospital; I. R. Cook, University Tutorial College; R. H. Cooper, Charing Cross Hospital; *A. W. D. Coventon, Trinity College, Cambridge; *D. M. Davies, University College, Aberystwith, and Charing Cross Hospital; *P. A. S. Dyson, Guy's Hospital; A. G. V. Elder, St. George's Hospital: A. G. C. Findlay, University College; *P. G. Foulkes, Middlesex Hospital and Birkbeck Institute; A. H. Gifford, King's College; *A. H. Gregson, Owens College; E. C. Hobbs, Alwyne Institute; *A. B. Howitt, Epsom College; H. V. Humphry, University College and private tuition; *Catherine Mary Ironside University Tutorial College; *J. Jones, Owens College; *C. H. Latham, St. Thomas's Hospital and University Tutorial College; G. Laurence, University College, Liverpool; M. A. J. Lavis, Epsom and University Tutorial College, and Alwyne Institute; J. T. Lloyd, University College, Liverpool; *O. E. Lord, St. Bartholomew's Hospital; *L. P. Maitland, The Polytechnic, Regent Street; G. E. Peachell, St. Mary's Hospital; *P. A. Peall, Guy's Hospital; O. P. N. Pearn, University College, Aberystwith, and University Tutorial College; *S. H. Pitcairn, St. Thomas's Hospital and University Tutorial College; *G. Price, St. Thomas's Hospital and University Tutorial College; *G. H. Rees, Camberwell Green School and Guy's Hospital; *C. M. Roberts, St. Paul's School and St. Thomas's Hospital; H. C. Samuel, University College, Cardiff, and University Tutorial College; *H. T. Samuel, Kingsholme School, Weston-super-Mare; *F. W. W. Smith, St. Thomas's Hospital and University Tutorial College; *Annie Broomhall Thin, University Tutorial College; E. F. Travers, St. Bartholomew's Hospital; *F. H. Whitehead, St. Thomas's Hospital; *L. A. Wilson, Owens College; *E. R. Wheeler, Monkton Combe School and King's College.

N.B.—The foregoing lists, published for the convenience of candidates, are provisional only, and are not final until the reports of the Examiners shall have been confirmed by the Senate.

* These candidates have now completed the examination.

CONJOINT BOARD IN ENGLAND.

The following gentlemen have passed the First Examination of the Board, under the five years' regulations, in the subjects indicated:

Part I. Chemistry and Physics.—C. F. M. Abbott-Brown, King's College, London; O. M. Bartlett, St. Mary's Hospital; L. B. Bigg, St. Bartholomew's Hospital; G. Birch, London Hospital; L. T. Booth, University College, Liverpool; G. L. Buckeridge, Oxford University and Guy's Hospital; T. W. Chaff and S. E. Crawford, St. Bartholomew's Hospital; A. F. Cole and H. J. Cundell, St. Mary's Hospital; J. A. Cronkshaw, Owens College, Manchester; P. T. Drabble, Firth College, Sheffield; A. G. V. Elder, St. George's Hospital; H. L. Evans, St. Thomas's Hospital; R. M. Fickling, Birkbeck Institute; S. C. R. Flaxman, Middlesex Hospital; R. R. Garrett, St. Mary's Hospital; G. F. Hardy, Guy's Hospital; J. W. Hele, Middlesex Hospital; M. Herzheim, St. Bartholomew's Hospital; L. Hill, St. Mungo's College, Glasgow; N. W Hill, London Hospital; L. S. Hooper, St. Thomas's Hospital; H. M. Huggins, St. Bartholomew's Hospital; S. F. Huth, St. Mary's Hospital; E. N. Jupp, Guy's Hospital; C. S. Kingston and E. Leverton-Spry, St. Bartholomew's Hospital; F. B. Lowe, Guy's Hospital; E. J. H. Luxmore, St. Mary's Hospital; E. H. McMahon, Charing Cross Hospital; P. J. Marett, Westminster Hospital; G. B. Messenger, University College, Liverpool; H. F. F. Mortimer, Birkbeck Institute; C. W. O'Brien, St. Bartholomew's Hospital; G. O. Parsons, St. Thomas's Hospital; H. W. Perkins, Birkbeck Institute; B. Pick, St. George's Hospital; J. D. Reid, Owens College, Manchester; D. H. Richards, Guy's Hospital; T. Rose, Middlesex Hospital; E. J. H. Rudge and G. M. Sanderson, London Hospital; H. L. Shelton, Guy's Hospital; A. H. Smith, Firth College, Sheffield; R. Spears and H. D. Stewart, University College, London; J. H. K. Sykes, Yorkshire College, Leeds, and Technical College, Bradford; F. Thompson, London Hospital; E. M. Thomson, St George's Hospital; H. S. Turner, King's College, London; H. Wheelwright, St. Thomas's Hospital; G. F. Wilson, London Hospital; W. F. Wise, Middlesex Hospital.

Forty-eight gentlemen were referred for three months.

Part II. Practical Pharmacy.—C. Birch, Mason College, Birmingham; S. C. H. Bent, Guy's Hospital; H. H. Butcher, St. Bartholomew's Hospital; P. Butler, private study; W. R. Cazenove and J. T. de Coteau, Guy's Hospital; T. W. Chaff and C. Dix, St. Bartholomew's Hospital; W. Dick, University College, London; R. A. Facey, St. Mary's Hospital; H. E. Flint and H. Goodman, St. Bartholomew's Hospital; F. J. Gomoz, King's College, London; P. L. Hickes, University College, Bristol and Guy's Hospital; L. Hill, St. Mungo's College, Glasgow; R. L. Jimenez, Guy's Hospital; D. J. Lewis and J. A. McComb, London Hospital; L. M. Morris, St. Bartholemew's Hospital; R. E. Mounsey, St. George's Hospital; S. Northwood, Mason College, Birmingham; C. L. C. Owen, St. Bartholomew's Hospital; H. G. Pinches, St. Thomas's Hospital; R. J. Pritchard and W. O. Roberts, Guy's Hospital; R. W. Rees, Surgeons' Hall, Edinburgh, and University College, London; E. A. Sanders, King's College, London; R. W. Stephenson, University College, Liverpool; G. Snorland and E. J. Tongue, Guy's Hospital; A. E. Whitehead, Firth College, Sheffield; H. C. Woodcock, St. Mary's Hospital.

Thirteen gentlemen were referred for three months.

Part III. Elementary Biology.—H. Balme, King's College, London; H. Bardsley, University College, Liverpool; H. S. Bennett and A. C. Birt, St. Thomas's Hospital; B. R. Bickford, Charing Cross Hospital; S. C. Bowle, Guy's Hospital; C. R. Bradley, Birkbeck Institute; F. A. Brodribb, St. Paul's School, London; H. D. Cochrane, St. Thomas's Hospital; T. R. Couldrey, St. Bartholomew's Hospital; F. W. Cresswell, St. Mary's Hospital; A. G. V. Elder, St. George's Hospital; H. S. Gettings, Mason University College, Birmingham; R. H. T. P. Harris and W. F. Higginson, St. Mary's Hospital; A. E. Hay, King's College, London; J. W. Hele, Middlesex Hospital; A. S. M. Hutchinson and A. J. H. Iles, St. Thomas's Hospital; M. Herzheim and R. M. Im Thurn, St Bartholomew's Hospital; M. A. Johnston-Lavis, Epsom College; S. W. Jones, St. Mary's Hospital; W. A. D. King, Middlesex Hospital; C. B. Lee, Owens College, Manchester; P. J. Martin, St. Bartholomew's Hospital; F. J. Pierce, Charing Cross Hospital; E. A. Roberts, King's College, London; J. D. Reid, Owens College, Manchester; T. Rose, Middlesex Hospital; G. M. Sanderson and S. Smulian, London Hospital; I. S. Sheffield, Guy's Hospital; M. W. Shute, St. George's Hospital; G. M. A. Thomas, St. Mary's Hospital; H. S. Turner, King's College, London; J. C. F. D. Vaughan, B. J. Wakley, H. A. W. West, and J. H. M. Whitehead, St. Thomas's Hospital; A. R. Wade, St. Bartholomew's Hospital; S. J. Weinberg, Owens College, Manchester; V. N. Whitamore, Charing Cross Hospital; and E. B. C. White, of London Hospital.

Twenty-two gentlemen were referred for three months.

The following gentlemen have passed the First Examination of the Board under the four years regulations in the subjects indicated:

Part II. Materia Medica.—A. V. Benson, London Hospital; G. M. Brown, Guy's Hospital; A. C. Jenkins, London Hospital; L. C. Martin, Guy's Hospital; P. H. Scholberg, Cambridge University and St. Bartholomew's Hospital; and W. P. Taylor, Firth College, Sheffield.

One gentleman was referred for three months.

Part III. Elementary Physiology.—J. J. Anning and J. Ewing, Yorkshire College, Leeds.

ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

At the monthly business meeting, held on Friday, February 3rd, the undermentioned was elected an Honorary Fellow of the College:

Thomas Clifford Allbutt, M.B.Univ.Cantab., 1860; M.D., 1868; F.R.C.P. Lond., 1882; F.R.S.; Regius Professor of Physic in the University of Cambridge.

The following candidates, who had been successful at the Final Professional Examination held in January, 1899, under the Conjoint Scheme with the Royal College of Surgeons in Ireland, were duly admitted to the Licences in Medicine and Midwifery of the Royal College of Physicians of Ireland:

W. Bennett, D. B. Bradlaw, Aimai Grace M. Cooper, J. Conway, B. A. Craig, R. M. Fisher, H. E. Howley, M. J. Hynes, A. W. A. Irwin, W. F. Kennedy, M. M. Maughan, J. McDonald, E. M. J. O'Farrell, C. N. O'Sullivan, B. Scribner, V. P. Tighe, C. J. Vahey, R. J. White, and A. A. Woods.

It was announced to the President and Fellows that W. M. O'Connor, M.A., M.D.Univ.Dubl., had passed with honours a Special Examination for the Diploma in State Medicine, conferred conjointly with the Royal College of Surgeons in Ireland.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,717 births and 4,275 deaths were registered during the week ending Saturday last, February 4th. The annual rate of mortality in these towns, which had declined from 19.1 to 17.0 per 1,000 in the four preceding weeks, rose again to 19.5 last week. The rates in the several towns ranged from 11.0 in Croydon, 13.1 in Brighton and in Huddersfield, 14.3 in Norwich, and 14.5 in Hull, to 23.5 in Newcastle-upon-Tyne, 24.5 in Gateshead, 25.2 in Liverpool, and 27.2 in Sunderland. In the thirty-two provincial towns the mean death-rate was 19.7 per 1,000, and slightly exceeded the rate recorded in London, which was 19.4 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.6 per 1,000; in London the rate was equal to 1.5 per 1,000, while it averaged 1.6 in the thirty-two provincial towns, among which the highest zymotic death-rates were 2.2 in Manchester, Preston, and Leeds, 2.3 in West Ham, 2.6 in Sheffield, and 3.2 in Bolton. Measles caused a death-rate of 1.2 in Manchester, 1.4 in Oldham, and 1.9 in Bolton; and whooping-cough of 1.1 in Nottingham and in Halifax, 1.3 in Bristol, 1.5 in Swansea, and 2.2 in Preston. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 87 deaths from diphtheria in the thirty-three towns included 32 in London, 9 in Leeds, 8 in Sheffield, 6 in West Ham, 5 in Birmingham, 5 in Leicester, 5 in Liverpool, and 3 in Portsmouth. No fatal case of small-pox was registered during the week under notice either in London or in any of the thirty-two large provincial towns; and no small-pox patients were under treatment in any of the Metropolitan Asylums Hospitals. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had declined from 2,939 to 2,679 at the end of the five preceding weeks, had further fallen to 2,665 on Saturday last, February 4th; 265 new cases were admitted during the week, against 220, 249, and 220 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, February 4th, 924 births and 866 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 21.3 and 22.1 per 1,000 in the two preceding weeks, further rose to 28.4 last week, and was 8.9 per 1,000 above the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 16.9 in Perth and 19.7 in Dundee to 32.5 in Greenock and 33.2 in Glasgow; The zymotic death-rate in these towns averaged 3.1 per 1,000, the highest rates being recorded in Edinburgh and Aberdeen. The 469 deaths registered in Glasgow included 5 from scarlet fever, 3 from diphtheria, 25 from whooping-cough, and 8 from diarrhœa. Six fatal cases of measles, 2 of scarlet fever, and 11 of whooping-cough were recorded in Edinburgh; 9 deaths from measles, 2 from diphtheria, and 2 from "fever" occurred in Aberdeen.

VITAL STATISTICS OF 1898.

H. P.—The following are the rates for England and Wales, 1898:

Birth-rate = 29.4 per 1,000 living.
Death-rate = 17.6 ,, ,,
Zymotic-rate = 2.22 ,, ,,
Infant mortality = 161 per 1,000 births.

THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

[SPECIALLY REPORTED FOR THE BRITISH MEDICAL JOURNAL.]

THE Registrar-General has just issued his return relating to the births and deaths registered in England and Wales during the fourth or autumn quarter of 1898, and to the marriages during the three months ending September last. The marriage-rate was equal to 16.8 per 1,000, and was 1.0 per 1,000 above the mean rate in the corresponding quarters of the ten preceding years, 1888-97.

The births registered in England and Wales during the quarter ending December last numbered 223,720, and were equal to an annual rate of 28.3 per 1,000 of the population, estimated by the Registrar-General to be nearly thirty-one and a-half millions in the middle of 1898. This rate was 1.2 per 1,000 below the mean rate in the corresponding quarters of the ten preceding years. The birth-rates in the several counties ranged from 19.1 in Rutlandshire, 21.1 in Westmorland, 21.8 in Oxfordshire, and 22.4 in Sussex to 30.7 in South Wales, 31.2 in Warwickshire, 32.5 in Monmouthshire, and 33.7 in Staffordshire and in Durham. In thirty-three of the largest English towns, including London, the birth-rate last quarter averaged 29.7 per 1,000, and exceeded by 1.4 the general English rate. In London the birth-rate was equal to 28.9 per 1,000, while it averaged 30.2 in the thirty-two provincial towns, among which it ranged from 21.7 in Huddersfield, 22.5 in Halifax, 22.8 in Bradford, and 24.1 in Brighton to 33.9 in Salford, 34.6 in Sheffield, 34.8 in Sunderland, and 35.2 in Liverpool.

The births registered in England and Wales during the three months ending December last exceeded the deaths by 91,267; this represents the natural increase of the population during that period, From returns issued by the Board of Trade, it appears that 46,635 emigrants embarked during last quarter, for places outside Europe, from the various ports of the United Kingdom at which emigration officers are stationed. Of these 46,635 emigrants, 23,153 were English, 3,793 Scotch, and 5,903 Irish, while 13,786 others were of foreign nationality. Compared with the averages in the corresponding quarters of recent years, the proportion of emigrants from England showed a decline, while that from Scotland and from Ireland showed an increase.

During the fourth quarter of 1898 the deaths of 132,453 persons were registered in England and Wales, equal to an annual rate of 16.7 per 1,000 of the estimated population, which, with the exception of the fourth quarter of 1894, when the rate was 16.5 per 1,000, was lower than in the corresponding period of any year on record. The lowest county death-rates last quarter were 11.1 in Westmorland, 12.4 in Middlesex, 12.8 in Surrey, and 13.0 in Oxfordshire and in Rutlandshire; while the highest rates were 19.1 in Staffordshire, 19.2 in Lancashire, 19.4 in Durham, and 19.7 in Northumberland. In the urban population of England and Wales, estimated at nearly twenty-one and a-half millions of persons, the rate of mortality during the quarter under notice was 17.5 per 1,000; while in the remaining and chiefly rural population of nearly ten millions the rate was 15.0 per 1,000. These urban and rural rates were 1.8 and 1.3 per 1,000 below their respective averages in the corresponding quarters of the ten preceding years. Among thirty-three of the largest English towns the mean death-rate was 18.1 per 1,000, or 1.4 per 1,000 in excess of the general English death-rate during the same period. In London the rate was 17.2 per 1,000, while it averaged 18.7 in the thirty-two large provincial towns, among which the rates ranged from 11.9 in Croydon, 13.4 in Cardiff, 15.0 in Huddersfield, and 15.1 in Derby to 21.0 in Sunderland, 22.0 in Salford, 22.3 in Manchester, and 23.1 in Liverpool. In sixty-seven other large towns, with an estimated aggregate population of nearly four millions, the mean death-rate was 16.7 per 1,000, or 1.4 per 1,000 below the rate in the thirty-three great towns.

The 132,453 deaths registered in England and Wales during the three months ending December last included 5,024 which were referred to diarrhœa, 2,501 to "fever" (including typhus, enteric, and ill-defined forms of continued fever), 2,415 to diphtheria, 2,021 to measles, 1,670 to whooping-cough, 1,024 to scarlet fever, and 4 to small-pox: in all, 14,662 deaths resulted from these principal zymotic diseases, equal to an annual rate of 1.85 per 1,000, which was slightly below the average rate in the corresponding quarters of the ten preceding years, The mortality from diphtheria, "fever," and diarrhœa showed an excess, while that from each of the other principal zymotic diseases was below the average. Of the 4 deaths from small-pox registered in England and Wales during the quarter under notice, 1 occurred in London, 1 in Surrey, 1 in Lancashire, and 1 in the North Riding of Yorkshire.

The rate of infant mortality in England and Wales last quarter, or the proportion of deaths under 1 year of age to registered births, was equal to 153 per 1,000, and slightly exceeded the average rate in the corresponding period of the ten preceding years. In London the rate of infant mortality was 139 per 1,000, while it averaged 172 in the thirty-two large provincial towns, among which it ranged from 102 in Croydon, 134 in Portsmouth, 139 in London, and 143 in Sunderland, to 202 in Gateshead, 203 in Manchester, 208 in Blackburn, and 241 in Preston. The mortality in England and Wales last quarter among persons aged between 1 and 60 years was equal to an annual rate of 8.6 per 1,000 of the estimated population at this group of ages, and was 1.0 per 1,000 below the mean rate in the ten preceding fourth quarters. In the thirty-three great towns the mortality at this age-group averaged 10.1 per 1,000, and ranged from 5.6 in Croydon, 6.9 in Cardiff, and 7.6 in Brighton to 12.9 in Manchester, 13.8 in Swansea, and 13.9 in Liverpool. Among persons aged 60 years and upwards, the death-rate in England and Wales last quarter was equal to 63.6 per 1,000 of the estimated population at this age-group, against an average rate of 69.9 in the corresponding quarters of the ten preceding years. In the thirty-three great towns the rate was 69.4 per 1,000, ranging from 34.7 in Cardiff, 48.1 in Swansea, and 58.6 in Nottingham and in Derby to 86.3 in Newcastle-upon-Tyne, 87.4 in Salford, and 87.6 in Blackburn.

The mean temperature of the air at the Royal Observatory, Greenwich, was 48.5°, and was 4.8° above the average in the corresponding quarters of 127 years; it showed an excess of 4.4° in October, 3.4° in November, and 6.7° in December. The rainfall during the quarter amounted to 7.78 inches, and was 0.70 of an inch above the average.

LONDON MEAT.

WE have already referred at length on several occasions to the proposals of the Public Health Committee of the London County Council that the Council should express its readiness to carry out the recommendations of the Royal Commission on Tuberculosis as to providing public and closing private slaughterhouses. When the report came up before the Council a motion to proceed to the next business was carried by a large majority. The subject is thus shelved, and it appears that this is what was anticipated, for it was thought unlikely by those who were able to weigh the influence which the meat trade of the metropolis was able to bring to bear that expert opinion would weigh sufficiently with the Council to lead them to perform a duty to the general public in the face of a powerful trade opposition.

The Public Health Committee instructed Mr. Shirley Murphy to report on the statements of deputations who attended before the Committee last autumn, and his report is of great interest and value as showing the nature of the objections raised, and the ground on which these may be for the most part successfully refuted.

It was urged as one reason for the retention of private slaughterhouses that the amount of risk from tuberculous meat is insignificant. In reply to this it is pointed out that the danger to the consumer is substantial enough to render expedient a careful inspection of carcasses at the time of slaughter by skilled meat inspectors, since inspection of this sort cannot be made in private slaughterhouses, and that further the need for such inspection does not depend solely upon tuberculous meat, for the article may be unfit for human food and dangerous to human health from many other causes.

Another objection urged was that the abolition of private slaughterhouses would "practically destroy the purchase of the English farmers' cattle," for "the only customer, practically so far as London is concerned, is the man who has a private slaughterhouse of his own." Mr. Shirley Murphy points out, however, that the substitution of public for the 425 private slaughterhouses now existing would give opportunity to some 4,500 London butchers who have no slaughterhouses to buy and kill home-produced cattle.

It was also contended that the establishment of public slaughterhouses, requiring greater handling and carriage of recently killed meat, would "destroy the unique characteristics of home-killed meat." But the amount of handling to which the carcass is subjected in a well-ordered Continental public slaughterhouse is trifling compared with that to which it is now subjected here; the slaughtering in large, well-ventilated halls, the conveyance by well-arranged machinery into cooling rooms where the meat is allowed to set—stored, if the butcher desires it, in his own compartment, in a cold chamber, and the subsequent conveyance to his premises in specially constructed well-ventilated vans, from the roof of which the meat hangs—are conditions unknown in this country.

It was estimated by the Butchers' Trade Society that the public slaughterhouses would cost a million sterling, which, with expenses of management, would amount to £60,000 annually, assuming an inspector to be appointed at a salary of £150 a year for every ten private slaughterhouses, the total expenditure would amount to only £6,000 a year. How the estimate of one million was arrived at was not stated. It is not likely to be an under-estimate, and it is safe to assume that it includes liberal compensation to the owners of the existing slaughterhouses, and at the same time a very heavy item for the purchase of suitable sites. These sites would undoubtedly have to be of considerable dimensions in order to admit of the erection of slaughterhouses for different animals, pens and lairs for beasts, cold chamber, officer's quarters, stable, waiting room, etc., as suggested in a report presented by the Council's architect (Mr. Blashill). The provision of some compensation, moreover, seems only just, for most owners have been put to considerable expense during the past few years to bring their slaughterhouses up to modern requirements, and if the Committee's report had embodied some recommendation under this head, it certainly would have lessened the trade opposition.

Mr. Shirley Murphy urges that public slaughterhouses would serve the purpose of meat inspection stations to which meat arriving dead in London and not consigned to the City markets would be taken. Beyond these stations there would not be need of more than two or three meat inspection stations. These would be situated near principal railway stations, and would not be costly. Fees would be charged for their use, and for the inspection of meat. Members of the Royal Commission on Tuberculosis who visited Germany reported that "all the public slaughter houses in Germany are self-supporting." The appointment of an inspector to every ten private private slaughterhouses would not meet the requirements of the case. For proper inspection it is necessary to ensure that no killing shall be done without the knowledge and inspection of the officer. The proposed system of inspection of private slaughterhouses would give no guarantee of this. Different butchers would be killing at the same time, and the services of the inspector would not be available.

Mr. Shirley Murphy points out that meat killed in private slaughterhouses outside London which had not been inspected and stamped in public slaughterhouses in other parts of this country would be required to be taken to meat-inspection stations, where it would be stamped as fit or condemned as unfit for food. It is especially this meat, he adds, that needs inspection, for in the absence of any proper system of inspection, there is nothing to prevent the introduction into London of meat of dangerous quality; and there is, indeed, no doubt that London does receive such meat from other parts of England. The scheme of the Public Health Committee of the Council does not appear to have met with much favour at the hands of the metropolitan vestries, seventeen of which openly objected to it for one or more of the reasons which have already been seen. The proper inspection of the meat supply of London will, however, have to be provided for in the long run although it may be postponed for a while; and if this cannot be effected in the existing private slaughterhouses (and in the opinion of those best qualified to speak it cannot), these places, which number only some 400, and supply less than a tenth of the meat sold in London, should not be suffered to stand in the way of a much-needed reform.

PROPOSED REGISTRATION OF PLUMBERS.

A **MEMORIAL**, signed by sixty-four members of Parliament sitting on both sides of the House, has been presented to Her Majesty's Government, urging them to deal with the registration of plumbers in the ensuing session, in the interests of the public health. A separate memorial has been addressed to the Local Government Board, signed on behalf of the Parliamentary Bills Committee of the British Medical Association, the Manchester and Salford Sanitary Association, the Royal Institute of British Architects, the National Health Society, and the Royal Institute of Public Health. The memorial points out that it is requisite that statutory provisions should be extended to secure the adequate qualification, certification, and registration of qualified plumbers, upon the efficiency of whose work the healthiness of a house virtually depends. It is urged that plumbers should be brought under statutory regulation and control analogous to that obtaining in the case of other occupations bearing directly on the health of the public. The memorialists appeal to the Government to take the matter in hand, because the Bill is generally supported, and is popular throughout the United Kingdom, and will not evoke party opposition, Scotland and Ireland being especially keen in its favour.

THE ESTON SMALL-POX OUTBREAK.

WE should have noticed earlier the report on this outbreak by the medical officer of health, G. C. H. Fulton, M.B. The outbreak was an extension of that at Middlesbrough, and, beginning on February 28th, ended in the beginning of June, 1898. It was made up of 23 cases, in a population of 11,000. Eston being well vaccinated as regards infantile vaccination, there were no cases under 5 years of age, and only 2 between 5 and 10 years. Between 15 and 20 years there were 4 cases, and over 20 years 17 cases. Of the 23 cases, none had been revaccinated, 20 had been primarily vaccinated, and 3 had never been vaccinated. Among the 20 primarily vaccinated there were 3 deaths: one of a man aged 32, vaccinated in infancy, and showing a single bad mark; another of a man of 65, vaccinated in infancy, and with two bad marks; the third of a woman aged 30, vaccinated in infancy, and with three good marks; she is noted as having been very stout, with a fatty heart, and dying from syncope. All the 3 unvaccinated patients died, their ages being 19, 26, and 34 respectively. All the cases were removed to hospital, and, as regards revaccination of the hospital staff, Dr. Fulton says: "No person who had been revaccinated contracted the disease (small-pox) in the Eston district. At the beginning of the epidemic I advised the Council that every person employed or having anything to do at the sanatorium be vaccinated, with the result that not one person inside or outside the sanatorium who had to do work for the patients or Council contracted the disease. This is the more remarkable as at a neighbouring hospital under my care the only persons, three in number, that were not revaccinated, contracted the disease, and the revaccinated servants were free from attack."

POWERS OR PRIVILEGES OF MEDICAL OFFICERS OF POOR-LAW SCHOOLS.

A **CORRESPONDENT** writes: In the spring of last year an outbreak of measles occurred in the ophthalmic department of a district school. Without consulting the medical officer the superintendent closed the infant school, and, in reply to a written protest from the medical officer, claimed that he (the superintendent), as representing the managers, had a right to close for epidemic disease any portion of the establishment not only without consulting the medical officer, but even in opposition to his express disapproval of such a step. The Board of Management supported the superintendent in this view. In order to have the question settled, as one of law and principle, the medical officer appealed to the Local Government Board, who, after obtaining from the managers an expression of their views, addressed a letter to the clerk (a copy also being sent to the medical officer) to the effect that the Local Government Board were of opinion that the superintendent should have consulted with the medical officer of the school before giving directions to close the establishment, and they trusted that the managers would give him directions accordingly in case of any future contingency of the same character.

NOTIFICATION FEES.

W. M. sent to a local authority last autumn an account for unpaid fees in respect of notification certificates dating back to the summer of 1896, and has just been met by a long-delayed reply that the fees cannot be paid "as they are beyond the time allowed by law for payment."

*** The reply seems to be quite beside the question. The certificates of notification constitute a legal claim for the fee due in respect of each; and W. M. will do well to press his claim, and if not satisfied to lay the matter before the Local Government Board. While medical practitioners ought, as a matter of business, to claim their fees at (say) half-yearly intervals, there would seem to be no legal need so to do, and local authorities will be indiscreet if they endanger the smooth working of the notification system by awaiting repeated applications for moneys due in place of initiating payment at once or at regular times.

FEE FOR PAUPER MIDWIFERY.

W. V. M. writes to ask whether he as a district medical officer is entitled to the usual midwifery fee for having attended (by order) a patient four days after delivery whom he finds suffering from "the effects of her recent confinement."

*** We are advised that in this case the medical officer could not claim the ordinary fee allowed for midwifery, as his attendance was not given at or immediately after the birth of the child.

MEDICAL NEWS.

A **FIRE** occurred at the Aberdeen Lunatic Asylum on February 8th, but was extinguished without loss of life.

DR. **ROUX**, subdirector of the Pasteur Institute, has been elected a member of the Académie des Sciences.

Two cases of typhus fever were notified in London during January, one from Camberwell on January 25th, and one from Rotherhithe on January 29th.

THE Second Portuguese Congress of Medicine is to be held at Oporto in 1900. The President of the Organising Committee is Dr. Gramacho; the Secretary, Dr. Ricardo Jorge.

AN International Conference in regard to the Prophylaxis of Syphilis and Venereal Diseases will be held in Brussels some time in the first half of September, 1899.

AT the evening meeting of the Pharmaceutical Society of Great Britain, on Tuesday, February 14th, Professor J. Reynolds Green, Sc.D., F.R.S., will give a lecture on Adverse Conditions, and their Remedies, in the Life of Plants.

THE Governors of the Radcliffe Infirmary, Oxford, have received a gift of £2,500 from Mr. T. H. Rose, of Oxford. In the letter covering the cheque, Mr. Rose expresses his deep regret that an institution doing such magnificent work should be so embarrassed financially.

LORD MOUNT-STEPHEN has sent a subscription of £1,000 to the Prince of Wales's Hospital Fund, together with a letter stating that it is his present intention to contribute the like sum annually. The Bank of England has also sent in its annual subscription of £250 to the Fund.

THE PREVENTION OF HOSPITAL ABUSE IN AMERICA.—A Bill has been drawn for introduction at the General Assembly at Albany which is to make provision for a Board of Control for the supervision and regulation of dispensaries, consisting of representatives from the medical societies and from non-medical directors of dispensaries. The object is to prevent hospital and dispensary abuse.

INCREASE OF MEDICAL PRACTITIONERS IN FRANCE.—According to statistics just published the number of medical practitioners in France in 1899 already amounts to 17,735, as against 15,984 in 1898, showing a decidedly formidable increase of 1,751. In Paris there are 62 more doctors than last year, in Lyons there are 57, and a proportionate increase is reported from several other large towns; and the cry is still they come!

THE MEDICAL GUILD, MANCHESTER.—The annual meeting of the Medical Guild was held at Manchester on January 25th, the President, Alderman Walmsley, in the chair. The annual report of the Council referred to various subjects of professional interest which had been dealt with during the year, including hospital reform, club practice, provident dispensaries, the Midwives and Vaccination Bills, and the establishment of the quarterly journal for the promotion of the objects of the Guild. Forty-six members had joined, fifteen resigned (ten owing to removal to other districts), and three died. The Treasurer's statement showed a balance in hand of over £16. The following officebearers were elected: President:—Alderman F. H.

Walmsley, J.P., M.R.C.S.; Chairman, Professor J. Dixon Mann, M.D.; Vice-Chairman, R. H. Wolstenholme, M.R.C.S.; Honorary Treasurer, C. G. L. Skinner, M.D.; Honorary Secretary, Alexander Stewart, M.D.; Auditors, J. W. Wood and J. C. Nichol, M.D.

DONATIONS AND BEQUESTS.—The late Mr. William Taylor, of Southport, has bequeathed £1,000 to the Oldham Infirmary and £500 to the St. Paul's Eye and Ear Hospital, Liverpool. Under the will of Mr. William Grey Campbell, of Edinburgh, who died in August last, the Longmore Hospital for Incurables benefits to the amount of £5,000, while the Edinburgh Royal Infirmary receives £1,000.

GUY'S HOSPITAL LONDON UNIVERSITY CLUB.—The annual general meeting and dinner of this club was held at the Café Royal on January 26th, under the chairmanship of Dr. Horrocks. For the first time since the formation of the club, the Committee had invited as guests two old Guy's men who had especially won distinction in 1898: Dr. Maillard, R.N., V.C., and Dr. Crosse, of the Royal Niger Company. The former, however, was unable to accept the invitation.

GERMAN BALNEOLOGICAL CONGRESS.—The twentieth meeting of the German Balneological Congress will be held this year in Berlin, March 3rd to 7th. Among the communications promised are the following: Diet in Health Resorts, by Drs. G. Klemperer and H. Strauss, of Berlin; The Defensive Power of the Organism against Micro-organisms, by Professor Liebreich; The Feeding of Diabetics, by Dr. Lenné, of Neuenahr; The Treatment of Sciatica, by Professor Eulenburg; and the Inunction Cure and Bath Treatment, by Dr. Schuster, of Aix-la-Chapelle.

AN ARGENTINE PHARMACOPŒIA.—The Committee to which was entrusted the task of preparing a *Codex Medicamentarus* for the Argentine Republic has finished its labours. The pharmacopœia contains 746 articles relating to chemical, botanical, and Galenical products and preparations. A special feature of the work is the fulness of the description—especially in regard to microscopic structure—which is given of the vegetable substances used for medicinal purposes.

THE INTERNATIONAL MEDICAL CONGRESS: SECTION OF MENTAL DISEASES.—The following are the questions proposed for discussion in the Section of Mental Diseases at the Thirteenth International Congress to be held in Paris, August 2nd to 9th, 1900: 1. Mental Pathology. The Psychoses of Puberty, to be opened by Professor T. Ziehen of Jena, Dr. M. Murro of Turin, and Dr. J. Voisin of Paris. 2. Pathological Anatomy. Pathological Anatomy of Idiocy, to be opened by Drs. Shuttleworth and Fletcher Beach, Dr. Mierzejewski of St. Petersburg, and Professor Bourneville of Paris. 3. Therapeutics. Rest in Bed in the treatment of acute forms of Insanity, and the modifications which it may make necessary in the organisation of establishments for the Reception of Lunatics, to be introduced by Dr. Clement Neisser, and Dr. Kovsakoff of Moscow. 4. Sexual Perversions, obsessive and impulsive, from the medico-legal point of view, to be introduced by Professor Krafft-Ebing of Vienna, Professor Morselli of Genoa, and Dr. Paul Garnier of Paris.

EAST LONDON MEDICAL PROTECTION AND MEDICO-ETHICAL SOCIETY.—According to the *East London Observer* a general meeting of the East London Medical Protection and Medico-Ethical Society was recently held at the West Ham Hospital. Dr. F. J. Smith presided, and among those present were Drs. F. Argles, A. W. Beaumont, W. A. Grogono, F. Bromley, G. C. Hamilton, J. Heffernan, Beadles, E. H. Blake, S. R. Blake, A. Cuffe, Edmund Hay, N. Jones, Preston Wallis, A. F. Tomlin, Murtaugh Houghton (hon. secretary), and J. F. Butler-Hogan (hon. treasurer). This Society has been in existence about a year. An account of its objects and constitution was given in the BRITISH MEDICAL JOURNAL of July 2nd, 1898. The report showed that nearly 100 registered medical practitioners have been elected members of the Society. Local Branches have been formed in Manor Park, Plaistow, East Ham, Canning Town, and Forest Gate. The secretaries of these Branches have been engaged in compiling black lists of bad payers. Two gross cases of unprofessional conduct have been considered, in one of which action has been taken, and the matter dealt with by the proposed practitioner's licensing body upon evidence laid before it by the Society. In spite of some opposition, the Society succeeded in obtaining adequate representation (25 per cent.) of the medical profession upon the Committee of the proposed East Ham Hospital, which is now making satisfactory progress. The chairman, in moving the adoption of the report, said they were now a legal Society, and, in his opinion, had accomplished a reasonable amount of work. In the opinion of the more active members of the Society, however, they could have been more progressive. He hoped the Society would prosper in the future, and would accomplish the objects for which it was formed. Dr. Butler-Hogan seconded the adoption of the report, which was unanimously agreed to. Votes of thanks closed the proceedings.

THE NOBEL BEQUEST.—Mr. Axel Danielson of Stockholm, in a letter addressed to the *Scientific American* in regard to the Nobel bequest, says that the case has been decided, or rather a compromise has been effected between the contesting parties. The relatives of the deceased will receive 3,800,000 Swedish crowns, a little more than £20,000, so that there still remains for the prizes the sum of 25,000,000 crowns, equivalent to £139,000. The income, computed at the rate of 3 per cent., will make the five prizes worth 150,000 crowns, or £8,300 each. It is expected that the compound interest during the time, which will necessarily be long, that will elapse before the prizes can be awarded will increase the capital so as to cover the cost of managing the funds and the work entailed in properly distributing the prizes. It will be remembered that these prizes are to be awarded annually to persons making the most important discoveries in physics, chemistry, physiology, or medicine. There is also to be a prize for the best literary contribution upon the subject of physiology or medicine, and also for any person who has achieved the most or done the best things to promote the promotion of the cause of peace throughout the world.

A NEW BACTERIOLOGICAL INSTITUTE AT LOUVAIN.—On February 2nd a new Bacteriological Institute was formally opened in the University of Louvain. The Institute is on a large scale, and the installation and equipment are in accordance with the most advanced ideas. Every facility for research is provided. The stables, kennels, and other quarters for animals are built around a vast garden, and all the arrangements show careful regard for the health and comfort of the animals. Professor Denys began his work fifteen years ago in two small rooms, which later expanded into a respectable laboratory, and now have developed into a scientific palace. Giving an account of the work that had been done, he stated that more than 80 original researches had come from it, besides 25 presented for travelling scholarships, 23 of which had gained a prize of £160. A special department in the new Institute will be devoted to the preparation of therapeutic serums of different kinds, tuberculin, etc. At the Congress on Tuberculosis held in Paris last summer Professor Denys gave an account of a new tuberculin which he had used with considerable success; he proposes to continue his work in this field, and is hopeful of success. A feature in the Institute which is likely to be particularly useful is an out-patient department for sufferers from tuberculosis and other microbic diseases who receive serum-therapeutic treatment adapted to their complaints, only substances which have been tested by experimentation on animals being used. Already numbers of patients, mostly the subjects of phthisis, are in regular attendance.

HEALTH RESORT AT KIAO-CHAU.—The *Times* correspondent states that the report on Kiao-Chau submitted to the Reichstag contains an interesting ground plan of a future town which is to spring up on Tsintau Bay, designed on the model of a Baltic watering place. According to this report Tsintau may one day serve as a resort for Europeans who lose their health in the southern Chinese ports. At present it is asserted that there are complaints as to the sanitary condition of the territory in the rainy season. There were a number of cases of dysentery and of malarial diseases which carried off four of the German garrison. There were also numerous cases of articular rheumatism. An exact survey of the territory will be completed only towards the close of the present year, but on October 10th, 1898, a final delimitation of the frontier had been effected by German and Chinese Commissioners in accordance with the treaty of March 6th.

MEDICAL VACANCIES.

The following vacancies are announced :—

BIRMINGHAM: GENERAL HOSPITAL.—House-Physician. Salary, £70 per annum, Also House-Surgeon. No salary. Residence, board, and washing provided in each case. Applications to the House Governor by February 25th.

BRISTOL ROYAL INFIRMARY.—Resident Obstetric Officer. Salary £40 per annum, with board, lodging, and washing. Applications to the Secretary by February 21st.

COVENTRY: COVENTRY AND WARWICK HOSPITAL.—Senior House-Surgeon. Salary, £100 per annum, with rooms, board, washing, and attendance. Applications to the Secretary by February 15th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Assistant Dental Surgeon. Applications to the Secretary by February 13th.

DEVIZES URBAN DISTRICT COUNCIL.—Medical Officer of Health; must reside within the Borough. Salary, £50 per annum. Applications, marked "Medical Officer of Health," to the Town Clerk, by March 4th.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Assistant House-Surgeon. Board, lodging, and washing provided, no salary. Applications to the "Secretary of Medical Committee" by first post on February 23rd.

FARRINGDON GENERAL DISPENSARY.—Resident Medical Officer. Salary, £100 per annum, with apartments and attendance. Applications to the Secretary, 17, Bartlett's Buildings, Holborn Circus, E.C.

GOVERNMENT RAILWAY IN WEST AFRICA.—Assistant Medical Officer to attend on Railway Saff. Salary, £30 per month. First-class passage out and home. Applications, marked "Medical Officer," to Mr. W. Shelford, 35A, Great George Street, Westminster, S.W.

GLASGOW UNIVERSITY.—Professor of Pathology. Salary, £1,100. Applications to Alan E. Clapperton, Secretary of the Glasgow University Court, 91, West Regent Street, Glasgow, by March 24th.

GUILDFORD: ROYAL SURREY COUNTY HOSPITAL.—Resident House-Surgeon. Salary, £80 per annum, with board, residence, and laundry. Also Assistant House-Surgeon. Salary, £30 per annum, with board, residence, and laundry. Applications to the Honorary Secretary by February 24th.

HEREFORD GENERAL DISPENSARY.—Assistant House-Surgeon and Dispenser. Salary, £75 per annum, with board, residence, and washing. Office tenable for two years. Applications to the Secretary, 37, Bridge Street, Hereford, by February 21st.

HEREFORDSHIRE COUNTY ASYLUM, Hill End, St. Albans.—Assistant Medical Officer. Salary, £130 per annum, increasing to £150, with furnished quarters, board, washing and attendance. Applications to the Medical Superintendent by February 24th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Surgeon to Out-patient Department. Appointment for six months, but eligible for re-election. Salary, 25 guineas. Applications, on forms provided, to the Secretary by February 21st.

KENT COUNTY LUNATIC ASYLUM, Barming Heath, near Maidstone.—Fourth Assistant Medical Officer and Pathologist; unmarried. Salary, £175 per annum, rising £5 a year, with furnished quarters, attendance, coal, gas, garden produce, and washing. Appointment for two years. Applications to the Superintendent by February 16th.

LANARK (COUNT YOF).—Assistant Medical Officer of Health. Must possess Diploma in Sanitary Science. Salary commencing £130. Applications to Dr. Wilson, County Medical Officer, Hamilton, N.B.

LEICESTER INFIRMARY.—Assistant House-Surgeon. Honorarium of £42 a year, with board, residence, and washing. Applications to the Secretary, 24, Friar Lane, Leicester, by February 13th.

LIVERPOOL SCHOOL OF TROPICAL DISEASES (University College, Liverpool, and the Liverpool Royal Southern Hospital).—Lecturer in Tropical Diseases at University College. Will also be appointed Honorary Consulting Physician to the Royal Southern Hospital. Salary, £250 a year and proportion of students' fees. Applications to Professor Boyce, University College, Liverpool, by February 27th.

LONDON THROAT HOSPITAL, 204, Great Portland Street, W.—Assistant Surgeon. Applications to the Medical Committee before February 20th.

MILLER HOSPITAL AND ROYAL KENT DISPENSARY, Greenwich Road, S.E.—Junior Resident Medical Officer. Salary, £30 per annum, with board, attendance, and washing. Applications to the Secretary by February 13th.

MORPETH DISPENSARY.—House-Surgeon. Salary, £120 per annum, with furnished rooms, coal, and gas. Must be prepared to take office March 16th. Applications to N. I. Wright, Honorary Secretary, Beechfield, Morpeth, Northumberland, by February 16th.

NATIONAL ORTHOPÆDIC HOSPITAL, 234, Great Portland Street, W.—Surgical Registrar. Applications to the Secretary by February 18th.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road, N.W.—Assistant Resident Medical Officer. Appointment for four months. Salary at the rate of £50 per annum, with board, residence, and washing. Applications to the Secretary by February 13th.

RICKMANSWORTH: DALRYMPLE HOME FOR INEBRIATES.—Resident Medical Superintendent. Salary, £200 per annum, with unfurnished house, food, coals, gas, etc. Applications to the Chairman, House Committee, by February 24th.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Physician. Must be F.R.C.P.Lond. Applications to the Secretary by February 14th.

RYDE: COUNTY HOSPITAL.—House-Surgeon. Salary, £50 per annum, with board, lodging, etc. Applications to the House-Surgeon by March 1st.

SALISBURY INFIRMARY.—Assistant House-Surgeon; unmarried. Board, lodging, and washing provided, and honorarium of £10 after six months' satisfactory service. Applications to the Secretary.

ST. ANDREWS UNIVERSITY.—External Examiner for Graduation in Public Health. Applications to Mr. C. S. Grace, Factor to the University Court, by February 21st.

ST. MARK'S HOSPITAL FOR FISTULA AND OTHER DISEASES OF THE RECTUM, City Road, E.C.—House-Surgeon. Salary, £50 per annum, with board and lodging. Applications to the Secretary by February 18th.

SHEFFIELD: UNIVERSITY COLLEGE.—Demonstrator in the Bacteriological Laboratory. Salary, £150 per annum. Applications to the Council of the College by February 23rd.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—Assistant House-Surgeon. Salary, £30 per annum, with board, lodging, and washing. Applications to the House-Surgeon by February 23rd.

TAUNTON: TAUNTON AND SOMERSET HOSPITAL.—Assistant House-Surgeon. Appointment for six months. No salary, but board, washing, and lodging provided. Applications, endorsed "Assistant House-Surgeon," to the Hon. Secretary, by March 3rd.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea, S.W. House-Physician. Appointment for six months. Honorarium at the rate of £50 per annum, with board and lodging. Applications to the Secretary by February 25th.

WAKEFIELD: CLAYTON HOSPITAL AND WAKEFIELD GENERAL DISPENSARY.—Junior House-Surgeon; unmarried. Salary, £60 per annum, with board, lodging, and washing. Applications to the Hon. Secretary by February 15th.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Assistant House-Surgeon. Appointment for six months. Honorarium at the rate of £50 per annum, with board and lodging. Applications to the Secretary by February 21st.

MEDICAL APPOINTMENTS.

Aherne, J. J., M.B., B.Ch., appointed Medica Officer for the Carrignavar Dispensary District, *vice* M. P. Dunlea, M.D., M.Ch.R.U.I.

Byrne, P. Kevin, M.D., B.S., B.A.Lond., M.R.C.S., L.R.C.P., appointed Medical Officer of the Christ Church District of the Parish of St. Marylebone, *vice* Dr. Norman Kerr, resigned.

Byers, M. A., M.D., M.A.O. (Hon. Causâ), Professor, appointed Examiner in Midwifery for the year 1899, to the Royal University of Ireland.

Cole, J. M. Coates, M.R.C.S., appointed Clinical Assistant for the Chelsea Hospital for Women.

Fowler, G., D.P.H.Eng., appointed Resident Medical Officer to the Finsbury Dispensary *vice* J. A. O. Briggs, M.B.Lond., F.R.C.S.Eng., resigned.

Kirby, S. J. J., M.D.Brux., L.R.C.P.Edin., M.R.C.S., appointed Medical Officer for the Fressingfield District of the Hoxne Union.

Laver, Philip, M.R.C.S.Eng., L.R.C.P., appointed Medical Officer to the Workhouse of the Lexden and Winstree Union.

Mackenzie, Ernest, M.D., appointed Medical Officer of the Cheadle (Staffs) Workhouse Infirmary, and Medical Officer and Public Vaccinator of the Cheadle District of the Cheadle Union, *vice* John William Harris Mackenzie, resigned.

Peck, H., M.B., C.M.Edin., reappointed Medical Officer of Health for the Chesterfield Rural District.

Shaw, J., M.D.Glasg., D.P.H., appointed Medical Officer for the Seventh District of the Aylesbury Union.

Thomson, J. W., M.B., C.M., appointed Senior House-Surgeon to the Clayton Hospital and Wakefield General Dispensary.

Thorp, Harold, M.R.C.S., L.R.C.P., appointed House-Surgeon to the Manchester Roya Infirmary.

Turner, R. T., M.D., appointed Medical Officer for the Wybunbury District of the Nantwich Union.

West, Waldemar S., M.A., M.D., B.C.Cantab., appointed Surgeon to the Royal Buckinghamshire Hospital, Aylesbury.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 8.30 P.M.—Clinical Evening: Mr. Watson Cheyne: Two Cases of Operation for Coxa Vara. Dr. R. Maguire: (1) Case of Recovery from Operation for Cerebellar Abscess; (2) Case of Hysterical Spasm. Dr. StC. Thomson: Case of Pharyngomycosis Leptothricia in a man, aged 36. Dr. Hector Mackenzie: (1) Case of Graves's Disease in a Male; (2) Case of Large Thoracic Aneurysm. Mr. F. C. Wallis: Case of Simple Comminuted Fracture after Operation. Mr. Warren Low: Case of 'Dislocation of the Humerus, with Fracture of the Great Tuberosity. Dr. W. Ewart and Mr. R. Emmett: Case of Hepatic Cirrhosis with Chronic Jaundice and Splenomegaly in a Lad, the subject of Congenital Syphilis. Dr. S. West: Case of Acromegaly.

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Mr. S. Paget: Demonstration of the Methods of Examining the Ear, and of Aural Instruments (Lecture I.)

TUESDAY.

Royal College of Surgeons, 5 P.M.—Sir William MacCormac, Bart.: The Hunterian Oration.

Royal Medical and Chirurgical Society, 8.30 P.M.—Dr. F. W. Hewitt: On the Effects produced in the Human Subject by the Adminstration of Definite Mixtures of Nitrous Oxide and Air, and of Nitrous Oxide and Oxygen.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C., 3.30 P.M.—Dr. Tooth: On Cranial Nerves (Lantern Demonstration).

Hospital for Diseases of the Nervous System, 73, Welbeck Street, W., 4 P.M.—Dr. Harry Campbell: Cases of Facial Paralysis.

WEDNESDAY.

North-West London Clinical Society, North-West London Hospital, Kentish Town Road, 8.30 P.M.—Discussion on the Relation of Gout to Rheumatoid Arthritis. To be opened by Dr. William Ewart.

Royal Meteorological Society, 25, Great George Street, Westminster, S.W., 7.30 P.M.

Evelina Hospital, S.E., 4.30 P.M.—Mr. A. H. Tubby: Clinical Demonstration on Surgical Cases (Post-graduate Course.)

Hospital for Consumption and Diseases of the Chest, Brompton, 4 P.M. Dr. Kidd: On Pleurisy.

Royal Microscopical Society, 20, Hanover Square, W., 8 P.M.

THURSDAY.

Charing Cross Hospital, Post-Graduate Course, 4 P.M.—Dr. Green: Cases in the Wards.

Hospital for Sick Children, Great Ormond Street, W.C., 4 P.M.—Dr. Voelcker: Demonstration of Selected Cases.

Harveian Society of London, 8.30 P.M.—Dr. Arthur Whitfield: Varieties of Eczema and their Treatment.

London Temperance Hospital, 2 P.M.—Dr. Soltau Fenwick: Clinical and Pathological Demonstration to Senior Students.

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Mr. S. Paget: Demonstration of Methods of Examining the Ear, and of Aural Instruments (Lecture II.)

FRIDAY.

Society of Anæsthetists, 20, Hanover Square, W., 8.30 P.M.—Papers and Communications by Dr. Flux, Mr. Bellamy Gardner, Mr. T. G. A. Burns, Mr. McCardie, Mr. Harvey Hilliard, Mr. A. Granville.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to insure insertion in the current issue.

BIRTHS.

Brooke.—On February 3rd, at East Harbour, Turk's Islands, W. Indies, the wife of Dr. Gilbert E. Brooke, B.A.Cantab., F.R.G.S., Government Medical Officer, of a daughter.

Nash.—On February 5th, at Clavering House, Bedford, the wife of W. Gifford Nash, F.R.C.S., of a son.

MARRIAGES.

Kerr—Blythman.—On January 31st, at All Saints Church, Wath-on-Dearne, by the Rev. Arthur Blythman, Rector of Shenington, Banbury (uncle of the bride), assisted by the Rev. W. J. Peacey, Vicar of Swinton, Yorks, Dr. W. S. Kerr, of Sheffield, to Edith Mary, eldest daughter of Dr. C. S. Blythman, of Swinton.

Lockyer—Coombs.—On February 7th, 1899, Cuthbert Lockyer, M.D., B.S.Lond., M.R.C.P.Lond., F.R.C.S.Eng., of 20, Devonshire Street, Harley Street, W., to Minnie Marie Coombs, only daughter of Robert Coombs, Esq., Cote Grange, Westbury-on-Trym, Gloucestershire, at Trinity Church, Clifton, Bristol. Reception, Imperial Hotel, Clifton.

Walker—Moorhouse.—On February 2nd, at St. Mary's, Crumpsall, Manchester, by Rev. R. Catterall, Rector, assisted by Rev. T. M. Macdonald, Rector of Kersal and Prebendary of Lincoln, Edward J. Walker, B.A., M.D., Manchester, youngest son of the late Rev. John Walker, Dublin, to Emily Henrietta, second daughter of Christopher Moorhouse, Fieldhead, Crumpsall, Manchester.

Watson—Nutt.—On February 1st, at the Parish Church, Newburn, by the Rev. G. Palmes, of Naburn Hall, James Kenneth Watson, M.D.Edin., of Byfleet, Surrey, to Emily Kate, youngest daughter of Mr. Henry Nutt, Naburn Lodge, Yorkshire.

DEATHS.

Jones.—On January 25th, at his residence, Preston Grange, Bournemouth, Thomas Jones, M.D., M.R.C.S., L.S.A., aged 60.

Walker.—On February 1st, at Newton Heath, Manchester, Alexander Walker, M.D., aged 49 years.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

Cancer, Brompton (Free). *Attendances.*—Daily, 2. *Operations.*—Tu. W. F., 2.

Central London Ophthalmic. *Attendances.*—Daily, 1. *Operations.*—Daily.

Central London Throat, Nose, and Ear. *Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—I.p., Tu., 2.30; o.p., F., 2.

Charing Cross. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.45; Dental, M., 9: Throat and Ear, F., 9.30. *Operations.*—Th. F. S., 3.

Chelsea Hospital for Women. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

City Orthopædic. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.

East London Hospital for Children. *Operations.*—M. W. Th. F., 2.

Great Northern Central. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F., 2.30; Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

Guy's. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30: Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 2. *Operations.*—Tu. F., 1.30; (Ophthalmic), M., 1.30; Th., 2.

Hospital for Women, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

King's College. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, daily, 2; o.p., daily, 1.30; Eye, M. W. Th., 1.30: Ear, Th., 2.30; Throat, M., 1.30; F., 2; Dental, M. Th., 10; Skin, W., 1.30. *Operations.*—W. Th. F., 2.

London. *Attendances.*—Medical, daily, i.p., 2; o.p., 1.30; Surgical, daily, 1.30 and 2; Obstetric, M. Tu. Th. F., 2; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, W., 9; Skin, Th., 9; Dental, Tu., 9. *Operations.*—Daily, 2.

London Temperance. *Attendances.*—Medical, M. Tu. W. Th. F., 1.30; Surgical, M. Th., 1.30. *Operations.*—M. Th., 4.30.

London Throat, Great Portland Street. *Attendances.*—Daily, 2; Tu. F., 6. *Operations.*—Daily, 2.

Metropolitan. *Attendances.*—Medical and Surgical, daily, 2; S., 9; Obstetric, W., 2; Eye, W., 2; Throat and Ear, Th., 2; Dental, Tu. Th. S., 9. *Operations.*—Tu. W., 2.30; Th., 4.

Middlesex. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., 1.30; o.p., M., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu. F., 9; Skin, Tu., 4; Th., 9.30; Dental, M. F., 9.30; W., 9. *Operations.*—Daily, 1.30.

National Orthopædic. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

New Hospital for Women. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30. *Operations.*—Tu. F., 9.

North-West London. *Attendances.*—Medical, daily, exc. S., 2; S., 10; Surgical, daily, exc. W., 2; W., 10; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

Royal Ear, Frith Street. *Attendances.*—M. W. F., 3; Tu. F., 9.30 and 7.30. *Operations.*—Tu., 3.

Royal Eye, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

Royal Free. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, W., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

Royal London Ophthalmic. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

Royal Orthopædic. *Attendances.*—Daily, 2. *Operations.*—M., 2.

Royal Westminster Ophthalmic. *Attendances.*—Daily, 1. *Operations.*—Daily, 2.

St. Bartholomew's. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. W. F., 2; o.p., W. S., 9; Eye, M. Tu. W. Th. S., 2; o.p., M. Th., 9; W. S., 2.30; Ear, Tu. F. 2; Skin, Tu., 9; Larynx, Tu. F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9; Electrical, M. Tu. Th. F., 1.30. *Operations.*—Daily, 1.30; (Ophthalmic), Tu. F. 2; Abdominal Section for Ovariotomy, F., 2.

St. George's. *Attendances.*—Medical and Surgical, daily; i.p., 1; o.p., 12; Obstetric, i.p., Tu. F. 1.45; o.p., M. Tu., 2.30; Eye, W. S., 1.30; Ear, Tu., 2; Skin, W., 2.45; Throat, F., 2; Orthopædic, F., 12; Dental, M. Tu. F., S., 12. *Operations.*—Daily, 1; Ophthalmic, M., 1; Dental, Th., 9.

St. Mark's. *Attendances.*—Fistula and Diseases of the Rectum, males, S., 2; females, W., 9.30. *Operations.*—M., 9; Tu., 2.30.

St. Mary's. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 12.45; Obstetric, Tu., F., 1.45; o.p., M. Th., 1: Eye, Tu. F., 9; Ear, M. Th., 9; Throat, Tu. F., 3; Skin, M. Th., 9; Dental, W. S., 9; Electro-Therapeutics, M. Th., 2.30; Children's Medical, Tu. F., 9. *Operations.*—M., 2.30: Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

St. Peter's. *Attendances.*—M., 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

St. Thomas's. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F. 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Th., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. F., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

Samaritan Free for Women and Children. *Attendances.*—Daily, 1.30. *Operations.*—Gynæcological, M., 2; W., 2.30.

Throat, Golden Square. *Attendances.*—Daily, 1.30; Tu, F., 6.30. *Operations.*—Daily, exc. M., 10.

University College. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. F., 1.30; Eye, M. W., 1.30; Ear, M. Th., 9; Skin, Tu. F., 2; Throat, M. Th., 9; Dental, Tu. F., 9.30. *Operations.*—Tu. W. Th., 2.

West London. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th., 2; Ear, Tu., 2; S., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, M. Th., 2; Skin, M. F., 2; Throat and Nose, Tu., 2; S., 10. *Operations.*—Daily, about 2.30; F., 10.

Westminster. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, Tu. F., 9.30; Ear, Tu., 1.30; Skin, W., 1.30; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

Communications respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the Journal, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* British Medical Journal *alone, unless the contrary be stated.*

Authors desiring reprints of their articles published in the British Medical Journal are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

Correspondents who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

Correspondents not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

In order to avoid delay, it is particularly requested that ALL letters on the editorial business of the Journal be addressed to the Editor at the Office of the Journal, and not at his private house.

Telegraphic Address.—The telegraphic address of the EDITOR of the British Medical Journal is *Ætiology, London.* The telegraphic address of the MANAGER of the British Medical Journal is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are directed will be found under their respective headings.*

QUERIES.

A. P. asks to be informed where a girl, aged 13, could be admitted for treatment for lateral curvature of the spine.

H. desires to find out the various consumption hospitals in the South of England at which the Nordrach treatment is carried out with or without slight modifications.

H. T. T. would like to know the best form of electricity to apply for tinnitus associated with Ménière's disease. Would the use of an ordinary Spammer's battery be contraindicated?

J.P.F. (1) desires to hear of a work suited to the wants of the general practitioner on electricity in the treatment of disease. He asks also (2) how to go about obtaining the post of doctor—for voyage out only—on board a vessel to Australia or New Zealand.

⁂ 1. Our correspondent should consult *Medical Electricity*, by Dr. Lewis Jones, 2nd edition (London: H. K. Lewis. 10s. 6d.), or *Medical Electricity*, by Dr. Dawson Turner, 2nd edition (London: Baillière, Tindall and Cox. 7s. 6d.).

2. Application should be made direct to the owners or general managers of the various steamship lines, the names of which may be found in the advertising columns of the daily press, and should be supported by whatever commercial or personal influence can be obtained.

Relief of Lightning Pains.

Dr. W. Johnson Smyth (Durley Gardens, Bournemouth) will be pleased to describe to "J. C. J." a method for stretching the spinal cord, which in his hands has undoubtedly relieved the pains in cases of locomotor ataxia.

Another correspondent writes to ask for advice in the treatment of lightning pains. His patient, who is aged 40, contracted syphilis ten years ago.

The Indian Medical Service.

Omega asks to be informed which are the best textbooks to read in preparation for the examination for Her Majesty's Indian Medical Service: (1) For compulsory subjects; (2) for modern languages; (3) for botany and zoology.

⁂ The books usually read for the Entrance Examination are—Surgery: Walsham's *Surgery.* Medicine: Taylor's *Textbook.* Anatomy Cunningham's *Practical Anatomy* and Quain's *Anatomy*, vol. ii, Part I on Osteology. Physiology: Kirkes's *Physiology.* Materia Medica: Mitchell Bruce. Chemistry: Luff's *Manual* (Cassell and Co.). French: *Hugo's French Journal*, published weekly. Physics: Balfour Stewart's *Textbook.* Geology: Geikie's *Elementary Textbook of Geology.* Physical Geography: Geikie's *Elementary Textbook of Physical Geography.* Botany and Geology: *Science Primers*, by Macmillan and Co. German: Any book does for this, as there is no grammar in this paper. Whilst there are the textbooks usually read, many others are used—for example, many men read Erichsen in surgery and Osler in medicine, Hale White in materia medica, Ellis for anatomy, etc.

The Cultivation of the Tubercle Bacillus.

G. H. asks: Is there a simple way of making tubercle bacilli cultivations in tubes? What should be the substance of the tubes, how prepared, and is one particular necessary?

⁂ There is really no simpler method of obtaining cultures of the tubercle bacillus from tuberculous nodules than that originally devised by Koch. After the primary cultivation it is a comparatively easy matter to grow the tubercle bacillus, which by this time has acquired a more marked saprophytic faculty on or in various media, such as glycerine agar, glycerine broth, or even potato. Serum derived from sterile blood of the sheep or calf inspissated in a sterile test tube for an hour a day for five days at a temperature of about 65° C., and then slowly solidified in an oblique position at 76° to 78° C., is practically the only medium on which tubercle bacilli can be cultivated direct from a tuberculous nodule. All other methods are attended with many difficulties. Most of the ordinary textbooks on bacteriological technique give good accounts of the method of preparation of this medium.

Village Nurses.

E. R. F. desires advice as to an equitable arrangement for a village nurse, where no medical friction can arise through lax rules. He wishes to hear of a society of doctors who have a medical association of their own, who would let him have a copy of their rules. A country district scheme would suit best.

⁂ The main cause of friction in most cases in which it exists is that the charitable and philanthropic people who support the nurses will requisition their services for the sick poor independent of the medical men of the district. There are several associations for supplying sick nurses for the poor which have a rule that the nurse can be requisitioned solely on the doctor's order. On the best associations the medical men of the district are *ex officio* members. The Dorset Health Association (headquarters Dorchester) is a good example of an association so constituted. We do not know of any combination of medical men for the purpose of controlling and organising the nursing of the sick poor in the rural districts. St. Katherine's Hospital, Regent's Park, has good rules which are often copied by district nursing associations.

The Age of Leucocytes.

Dr. W. Bryce Orme (Port Said) writes: I notice in the BRITISH MEDICAL JOURNAL EPITOME of January 7th that in an article entitled The Reaction of Syphilitic Blood to Mercury, Kuperwasser says that the blood of healthy people is modified by mercury in that the proportion of young leucocytes present is much increased, while the old are much diminished; while in the case of syphilitics the reverse is true. I should be much obliged if you could tell me, or if some one would inform me through the JOURNAL, how one tells the age of a leucocyte.

⁂ The age of a leucocyte is still a matter of theory and speculation. The generally accepted view, we believe, is that the different kinds of leucocytes are of different origin, and that their appearances will vary according to their functional activity—that is, whether in a state of rest or action. Authorities seem to agree that the small leucocyte with its scanty protoplasm surrounding a large spherical nucleus is in all probability a young or immature form; further than this they do not go. So long as leucocytes are deemed of different origin, the determination of their respective ages partakes of the nature of speculation. Kuperwasser seems to have felt this difficulty, and to have taken refuge with Ouskoff (who believes in the unity of their origin). Ouskoff and Kuperwasser so far stand alone. To Kuperwasser more particularly we would refer our correspondent, as he would appear, according to the EPITOME, to enumerate the distinguishing characters. We would, however, remark that the importance of Kuperwasser's contribution lies, not in his theory as to the age appearance of leucocytes, but in his statement that under certain conditions (for example, in syphilis) certain species of leucocytes prevail in the blood, and that this prevalence is characteristic.

ANSWERS.

Pons Belli.—In the circumstances described by our correspondent, we think he would be justified in not returning the newcomer's call.

Hamilton.—The address of the Medical Defence Union is 4, Trafalgar Square, London, W.C.

R. B. T.—The deaths from tuberculous diseases (including phthisis) in London were: 1895, 11,338; 1896, 10,730.

Enquirer.—No one can be placed in a retreat against his or her will. The patient must sign a consent; the lady superintendent of any retreat for females would forward the necessary forms.

E. T. D.—There does not appear to be any evidence that the practitioner whose name is mentioned in the paper was responsible for the appearance of the article in question.

R. C. P.—Dr. William Battie was President of the Royal College of Physicians of London in 1764, and died in 1776. Some particulars of his career will be found in *The Roll of the Royal College of Physicians*, vol. ii, p. 139.

A. B.—All the surgical instrument makers make artificial legs. Our correspondent might communicate with Messrs. Arnold in West Smithfield, or Maw and Co. in Aldersgate Street, or Mr. Ernst in Charlotte Street, Fitzroy Square.

C.—It is customary in cases in which the confinement occurs earlier than was expected, and when the nurse engaged cannot attend, to pay half the fee. Although the nurse is disappointed of her case, yet she is left free to take any other work that offers. In the present case, moreover, her disappointment seems partly due to her own misunderstanding.

Foreign Dentists in the United Kingdom.

In reply to a correspondent who asks a question as to the practice of dentists in this country with foreign diplomas, we may say that when the *Dentists' Register* was first formed, the conditions under which American dental qualifications could be obtained were investigated with a view to discovering whether any of them could be regarded as in general terms similar and equivalent to those granted in Great Britain.

The qualifications granted by the Universities of Harvard and of Michigan appeared from their published prospectuses to be thus roughly equivalent, and so recognition was accorded to them; but facts which came to the knowledge of the General Medical Council led to the withdrawal of that recognition a few years ago, and at the present time no American dental diplomas are recognised; but various British examining Boards accept, as fulfilling the requirements of their curriculum, attendance upon lectures and hospital practice at many schools in the United States, and they admit persons possessed of American diplomas to their examinations when they have attended in this country or elsewhere those parts of the British curricula in which the American curricula fall short of their requirements. Hence it is possible for an American graduate who desires to obtain an English diploma to come up for examination after attendance on certain courses of lectures and hospital practice, in addition to those which he has already attended; and, as the special courses of dental instruction are usually accepted as adequate, these practically consist in certain courses at a general medical school, and can be, at all events in the case of a Harvard graduate, taken out in a period of somewhat more than a year, during which a part only of the candidate's time will be occupied.

Qualifications of Public Vaccinator.

M.D.—In any new contract for public vaccination the only existing provision as to qualification is that contained in the new Vaccination Order, October 18th, 1898, Article 2, all previous Orders of Council and general and other orders in regard to vaccination having been rescinded. This Article states: "The guardians of any Poor-law union shall not enter into a contract for public vaccination with any registered medical practitioner, or approve of any such practitioner as deputy, for a public vaccinator, unless he shall produce a certificate of proficiency in vaccination, given under such conditions as we from time to time fix, by some person whom we shall have authorised to act for the purpose, and by whom he shall have been duly instructed and examined in the practice of vaccination; but it shall not be necessary to produce the certificate to the guardians, if such certificate was required as a condition of obtaining any diploma, licence, or degree which the contractor possesses." The University of Dublin does not seem ever to have required such a certificate as is contemplated by the above article. For any further information application should be made to the Secretary of the Local Government Board, Whitehall, S.W.

Medical Aid Associations.

Spes.—With regard to branch practices a registered medical practitioner may of course carry on his practice in any district which he chooses to select, but he must not place in charge of the branch practice an unqualified or unregistered person to attend or treat any patient to procure or issue any medical certificate or certificate of death, or otherwise to engage in medical practice, except under his immediate supervision. This we take it is tantamount to saying that he cannot place an unqualified assistant in charge of a branch practice. With regard to the other point raised by our correspondent, the report of the Medical Aid Committee of the General Medical Council (*Minutes*, vol. xxxiii, appendix xii) expresses the opinion that a medical practitioner is acting in a reprehensible manner if he accepts or retains employment by a medical aid association in which canvassing is used to attract members. At the meeting of the General Medical Council on May 27th, 1898, the Committee presented a second interim report in the course of which they say: "Their investigations so far confirm the conclusions of the Committee of 1893 as to the evils incident to the present system of working such institutions, which, when composed of *bonâ-fide* members of friendly societies, and managed on sound principles, are entitled to, and have always received, the friendly consideration of the medical profession."

The above also answers the question put to us by "C."

Medicus.—(1) Two of the bodies mentioned by our correspondent are frankly stated to be medical aid associations, limited. (2) A Foresters' club is of course an institution of another kind, and, as is well known, many medical men of good standing hold appointments as medical officers to such clubs. It is impossible to give a more definite answer, because in some places Foresters' clubs, we believe, contract with medical aid associations to give medical attendance to their members. (3) With regard to the National Deposit Friendly Society, there is a good deal of difference of opinion. Many practitioners who object to the unjust and injurious methods of medical aid associations are ready to support this organisation.

NOTES, LETTERS, Etc.

Messrs. Maw, Son, and Thompson write to say that they are in a position to supply millerained cloth.

At the quarterly meeting of the Cumberland County Council on February 1st, the recommendation of the Joint Lunacy Committee of the Cumberland and Westmorland County Councils that a superannuation allowance of £350 per annum should be made to Dr. Campbell, late Medical Superintendent of the Cumberland and Westmorland County Lunatic Asylum at Garlands, was adopted.

The Cartwright Prize.

The Cartwright prize of the Alumni of the College of Physicians and Surgeons (the Medical Department of the Columbia University), New York, will be awarded for an essay received not later than April 1st, 1899. The essay must embody original investigations made by the writer. The value of the prize is 500 dollars (£100), and is open to universal competition.

Syphilis in the Army.

Lieutenant-Colonel William Alexander, A.M.S., writes to say that the statement in the abstract of a letter by him published in the BRITISH MEDICAL JOURNAL of January 21st, p. 191, that he "is a strong advocate of the inunction method," gives an erroneous impression. He desires it to be understood that the Aix-la-Chapelle method is not merely inunction, but is associated with hot baths and the drinking of thermal waters, and that without these concomitants it would be no better than any other system of drugging. This we thought was made sufficiently plain in the abstract which was published. Our correspondent also complains that the abstract of his letter was printed in small type, whereas "the matter under consideration was brought forward in an editorial in large type," but he apparently forgets that a large number of letters criticising the opinion there expressed have since then been published in large type. There must be some finality about discussions in a periodical publication.

Erratum.—In Surgeon-Colonel Welch's letter on Syphilis in the Army in the BRITISH MEDICAL JOURNAL of January 14th, page 122, col. 1, line 27 from top, the deaths from syphilis in 1885 should have been given as 0.23, and not as printed.

Ascitic Fluid.

Dr. G. A. Leon (Sidmouth) writes: A question asked by Lieutenant W. H. Cox, I.M.S. in the BRITISH MEDICAL JOURNAL of January 28th, has determined me to send you notes of a case of hepatic hypertrophic cirrhosis under my care here. Lieutenant Cox drew off 480 ounces of fluid in one tapping, and wishes to know if that amount has ever been exceeded.

Mrs. C., aged 38, was first tapped on August 7th, 1897, the amount drawn off being 14½ pints; on September 19th 22 pints were drawn off; on October 17th, 20 pints; on November 21st, 23 pints; December 26th, 24 pints; January 27th, 1898, 21 pints; February 27th, 20 pints; March 27th, 22 pints; April 24th, 24 pints; May 15th, 18 pints; June 12th, 20 pints; July 3rd, 15 pints; July 27th, 16⅓ pints; August 21st, 18 pints: September 18th, 19 pints; October 16th, 16⅓ pints; November 13th, 17⅓ pints; December 11th, 15⅓ pints; January 8th, 1899, 16 pints; the total being 362⅓ pints.

Notwithstanding this enormous drain of an approximate average of ⅔ of a pint a day for 18 months from the system, and in spite of the gloomy prognosis of our textbooks (*vide Fagge*, vol. ii, pp. 330 and 373) Mrs. C. is to all appearance in fair health. She is out of doors almost daily, and up and about from morning to night for three weeks out of each four. Her nitrogenous food is strictly limited to a small quantity once a day, and milk food forms the staple nourishment. All alcohol and condiments are stopped, Every day she takes at least 10 minims of liq. ferri perchlor., and frequently small doses of calomel. Up to the last two operations, the opening into the peritoneal cavity has had to be closed by a harelip pin, and evidently I did not do the early operations sufficiently often, and over-distension was the result. The only complications have been an axillary abscess, cause unknown, and a troublesome pustular dermatitis of the abdomen, buttocks, and thighs, which have yielded to treatment. The measurements are taken in an ordinary stamped pint measure, and I can guarantee that no amount is overstated. I always make a liberal deduction at the end for the measure not being quite filled up to the brim each time. I should be very glad to hear the experience of others in cases of this kind. Personally, I believe making the patient remain in bed, as is usual in cases of cirrhosis, lessens the functional activity of those cells of the liver not rendered useless by the disease, and so is bad treatment.

DR. JAMES HILL (Renfrew) writes; In reply to Lieutenant W. H. Cox, let me say I have a patient under my care who suffers from cirrhosis of the liver, from whose abdomen I have aspirated large quantities of fluid. He has been tapped altogether nine times. The following are the dates and the quantities of fluid removed on each occasion; 1898: July 30th, 320 ozs.; August 18th, 320 ozs.; August 30th, 400 ozs.; September 20th, 480 ozs.; October 11th, 320 ozs.; November 1st, 600 ozs.; November 27th, 600 ozs.; December 20th, 400 ozs. 1899: January 11th, 400 ozs. The patient is a man aged 55 years of age. His strength is still well maintained, and he is able to get up a short time every day.

THE PREVENTION OF TUBERCULOSIS.

DR. D. TOLMY MASSON (Edinburgh) writes: Will you allow me to say a word on two points in the Association's report on this subject which was published in the BRITISH MEDICAL JOURNAL, January 28th, 1899. 1. The report takes it as "well founded" that the great and still undiminished mortality from tuberculosis in early childhood is due to the use of "milk from tuberculous cows." May I ask if no account is to be taken of milk from tuberculous mothers? And would it not be well if the report issued a word of warning against this undoubted source of infection? Where that danger clearly exists, well selected cow's milk would surely be preferable to milk from the mother's breasts. 2. The report gives no place to the vitally important reservation with which Sir William Broadbent qualifies his sweeping dictum that tuberculosis "is not an inherited vice in the constitution." To this strong statement Sir William is careful to add that "some constitutions are more prone to it than others." That qualification covers a wide field of possibility. May one not argue that it covers a wide field of what has long been held and taught in our books and in our schools as undoubted and patent fact? Whether or not it is really proved that the bacillus of phthisis cannot be transmitted directly as a baneful birthgift from parent to child, as Sir William Broadbent appears very confidently to teach, there can be no doubt that the constitution inherited by the children of tuberculous parents may be so depraved or so enfeebled as necessarily to invite the ravages of this and other forms of disease. The human organism is not divinely protected from the common fate of everything that springs from what the breeder and the fancier call "bad strain," and the farmer, the florist, and the forester know as "bad seed." Here it is just the same law for the potato and the potentate. Now if it be so, and it cannot be denied that at the least there is so much in the facts of Nature, why should the report pass it over in silence? Why should not the medical profession give fair warning that the marriage of tuberculous persons is not a thing to be lightly undertaken? When this warning is given responsibility will be shifted from the medical conscience to the broad shoulders of society and to the conscience of individual men and women who, if they transgress, will then be without excuse.

BELLADONNA PLASTER.

TWO recent prosecutions for the sale of belladonna plaster containing less than the standard amount of alkaloids required by the *British Pharmacopœia*, 1898, show that the old belladonna plasters of uncertain strength are still on sale. The emplastrum belladonnæ of the new *Pharmacopœia* is composed of extract of belladonna root mixed with resin plaster, and it is standardised to contain ½ per cent. of alkaloids. It is well known that belladonna root varies considerably in the amount of alkaloids present, and consequently that preparations made from it are not constant in alkaloidal strength. The belladonna plaster of the *British Pharmacopœia*, 1885, contained the alcoholic extract of the root. It was a variable preparation; very frequently it produced a great deal of irritation, due possibly to the fact that there was an excess of alkaloid in the plaster, which, becoming absorbed, produced the local therapeutic effect of the drug. In the *British Pharmacopœia*, 1867, belladonna plaster was made from the green extract. It was a mild, non-irritating application. There still appears to be a demand for the belladonna plasters of the *British Pharmacopœia*, 1885 and 1867, as shown by the fact that the prices of these are given in the price-lists of wholesale drug houses. The prosecutions for selling belladonna plaster below the standard alkaloidal value of the *British Pharmacopœia*, 1898, make it evident that all plasters now sold must be of the official strength.

HERPES ZOSTER WITH ABERRANT VESICLES.

DR. W. L. FFRENCH (Barnetby, Lincoln) writes: While doing duty for a friend, I was one day consulted by a gentleman, over 60 years of age, who was suffering from a severe attack of intercostal herpes zoster affecting his left side. I prescribed for him, and arranged to see him again in the course of a few days. I, however, received a message on the next day asking me to visit him. This I did, and found my patient in bed. There was some constitutional disturbance. Temperature 100° F., furred tongue, sleeplessness, and considerable *malaise*, and besides the intercostal shingles, which were inflamed and very irritable, he had a crop scattered over various parts of his body. There were a few on his face, several on his chest, also a few on his arms and abdomen. Being in doubt as to the true nature of the case, I asked the medical officer of health for the district to see him with me. This he did the next day, and after consultation it was decided that it was varicella complicated with shingles. I have never felt satisfied with the diagnosis, and since I have read a description of the condition I have no doubt in my own mind that it was in reality a case of herpes zoster with aberrant vesicles. I draw attention to it, as I understand that very few have been recorded in this country.

LETTERS, COMMUNICATIONS, ETC., have been received from:

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BOOKS, ETC., RECEIVED.

A Manual of Diseases of the Nervous System. By Sir W. R. Gowers, M.D., F.R.C.P., F.R.S. Third Edition. Vol. I. London: J. and A. Churchill. 1899. 15s.

Arbeiten aus dem Gesammtgebiet der Psychiatrie und Neuropathologie. Von R. v. Krafft-Ebing. Heft IV. Leipzig: J. A. Barth. 1899.

Notes on Surgery for Nurses. By J. Bell, M.D., F.R.C.S. Fifth Edition. Edinburgh: Oliver and Boyd. 1899. 2s. 6d.

On Villous Growths and the Common Affections of the Rectum. By T. Bryant, M.Ch., F.R.C.S. London: Medical Publishing Company. 1899. 3s. 6d.

Manual of the Diseases of Children. By J. M. Taylor, A.M., M.D., and W. H. Wells, M.D. London: Henry Kimpton. 1899. 16s.

A Junior Course of Practical Zoology. By A. M. Marshall, M.D., D.Sc., M.A., F.R.S., and C. H. Hurst, Ph.D. Fifth Edition, revised by F. W. Gamble, M.Sc. London: Smith, Elder, and Co. 1899.

Physicians' Book for Private Formulæ, with Posological Table. Bristol: John Wright and Co. 2s. 6d.

The Children's Labour Question. London: "Daily News" Office. 1899. 6d.

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THE HUNTERIAN ORATION
ON
HUNTER AS THE FOUNDER OF SCIENTIFIC SURGERY.

Delivered at the Royal College of Surgeons of England on Tuesday, February 14th, 1899.

By Sir WILLIAM MAC CORMAC, Bart., K.C.V.O.,
President of the College; Surgeon-in-Ordinary to His Royal Highness the Prince of Wales; Consulting Surgeon and Emeritus Lecturer on Clinical Surgery, St. Thomas's Hospital.

The Life of Hunter.

Your Royal Highness, my Lords, and Gentlemen,—In accordance with the terms of a deed establishing the Hunterian Oration, we celebrate to-day John Hunter's name and fame. Born on the 14th of February in the year 1728 at Long Calderwood, a small estate his father farmed, some eight miles from Glasgow, he died on October 16th, 1793, in his 65th year, celebrated alike as a great surgeon, a profound biologist, and a man of genius.

It is fitting that this College, the heir to Hunter's great collection, should take care for his memory, and one way in which this is done, however inadequately, is by means of the Hunterian Oration, delivered in this theatre in alternate years. Here, in view of this noble presentment of Hunter by the foremost painter of his time, the orator is called upon to praise its foremost surgeon. Hunter was a bad sitter, and it was almost by an accident that Reynolds obtained the opportunity to paint this, one of his finest portraits. In the background are indicated the bones of O'Brien the giant, whom Hunter affectionately calls his "tall man," a preparation showing the vessels of the heart suggestive of his work on Aneurysm, and three volumes of his manuscript notes.

As we look at the picture, painted in 1785, when Hunter was 57 years old, we perceive him in a deep reverie, in one of those waking dreams to which he refers in his lectures. He has paused from writing in order to think out some problem, and, as he often said, it was a delight to him to think. As we dwell upon the features, we cannot doubt that a sudden inspiration has flashed upon and gradually pervaded his mind, some great scientific truth or generalisation which he has grasped and is pondering with intense satisfaction. Those eyes, full of the keenest intelligence, seem in eager quest of something far beyond the visible tokens of his work. We may imagine Hunter trying, perchance, to solve some hidden mystery of life, or seeking to pierce the veil which hides from us the great unknown beyond.

Buckle calls Hunter a genius, whose only fault was an occasional obscurity in language and in thought. In his *History of Civilisation* he writes thus:

> It sometimes seems as if Hunter's understanding were troubled by the grandeur of its own conceptions, and doubted the path it ought to take. Still his powers were so extraordinary that among the great masters of organic science he belongs to the same rank as Aristotle, Harvey, and Bichat, and is somewhat superior to Haller and Cuvier.

What, then, was the manner of man whom Buckle thus characterises? It would desire to present him to you as a yet surviving influence, to recall his very words, and to show him to you as he lived.

To appreciate, or even to fully comprehend, the labours of Hunter, one must strive to judge them from the standpoint of his time, for in this way only can we form a just conception of their splendid superiorty.

On Hunter's early life and the many moot points it involves—his preliminary education or the want of it, whether he was for a time a carpenter by trade, why he was not sent to learn the Humanities at Glasgow College like his brothers, or why in later life he spent some time at Oxford University without any apparent appreciation of the academic learning there offered to him—I do not purpose to dwell.

John Hunter was the youngest child of a family of ten, and the spoiled son of his mother. As a boy his pleasure was to ramble in the quiet woodlands, observe the ways of the living things he found there, to collect the eggs of birds, and compare them together. "I wanted to know," he tells us, "all about the clouds and the grasses, and why the leaves change colour in the autumn; I watched the ants, bees, birds, tadpoles, and caddis worms; I pestered people with questions about what nobody knew or cared anything about."

Hunter's scientific career dates from his arrival in London in 1748, where, when 20 years of age, he joined his brother William's school as an ill-educated youth, new to all the amenities of life, brusque in manner, and negligent in appearance, yet with a keen sense of physical enjoyment. As a pupil he showed a marvellous aptitude for anatomy, and soon became a successful teacher of it, but he always remained a learner in that great book of Nature which was ever open before him, and whose pages, until he died 45 years later, he never ceased to turn, interpreting aright many of its obscurest passages. From the moment he began to work his industry was never-ceasing, his patience extraordinary, and his capacity for unflagging effort so sustained that it brought him step by step to a position which has earned for him the praise and admiration of his successors.

In 1759, undermined in health by ten years of incessant toil, he contracted an attack of pneumonia, and his weakened constitution was threatened with phthisis. Recommended to take rest, he only changed one sphere of activity for another, and having obtained through his brother's influence an appointment as surgeon in the army, he sailed (1761) with Keppel for Belleisle, and afterwards accompanied the expedition into Portugal. It was then that he studied the phases of inflammation and the treatment of gunshot wounds.

When he returned to London, after peace was proclaimed (1763), with nothing but his half-pay to live upon, and nothing but his genius to trust to for advancement, Hunter's life became an extremely arduous one. He was able to do with little sleep, and from four or five in the morning until the breakfast hour he dissected, then he saw patients, visited the hospital, pursued his researches, worked at his notebooks, and pondered the bearing of his observations till midnight. He was elected a Fellow of the Royal Society when 39, a year later became surgeon to St. George's Hospital, and in 1776 was appointed surgeon-extraordinary to the King. In 1786 he was appointed Deputy Surgeon-General in the army, and three years later became Surgeon-General. He also published his work on *Venereal Diseases* in 1786, and the following year received the Copley medal from the Royal Society on account of many valuable papers. His great work on the *Blood and Inflammation*, however, still remained unfinished after thirty years of labour bestowed upon it, and was only published after his death.

At 50 years of age he had reached the zenith of his surgical career. When Pott died Hunter became the chief surgical authority in London; his opinion was highly valued in all difficult cases, and he acquired a lucrative practice. There is no doubt he was an admirable clinical teacher and a courageous operator, and although his systematic lectures on surgery were marred by a faulty delivery and occasional obscurity of style, they attracted all those who afterwards attained distinction amongst their contemporaries. We only possess an account of these lectures on the principles of surgery at second hand, but even these somewhat fragmentary records teem with observation, are full of suggestion, and enlightened by many applications of physiological knowledge. Doubtless some of the explanations are faulty and some of the deductions incorrect, but Hunter is throughout transparently anxious to discover the truth, and his search for it is as unbiased as it is keen.

Abroad, the French school, then in the highest repute, received with acclamation a translation of Hunter's works. M. Royer-Collard wrote: "It is more than a book that has appeared; it is a scientific event, a discovery almost. We may now contemplate at our leisure one of the greatest monuments which the genius of science has created in modern times; we may study and learn to know every part of this great work, almost as new for us now, after fifty years have passed, as it was on the day of its birth."

Hunter was deficient in what we are pleased to call general culture, and doubtless he suffered in consequence. He read but little, and many of his discoveries had been anticipated by others; but when this was brought to his knowledge he abandoned any claim he might have advanced. It appeared to him of small consequence by whom a discovery was made if only it proved the stepping-stone to a higher and more complete knowledge. He was no mere collector of facts in order simply to augment their number. He thought too much attention could not be paid to facts so long as they helped to establish principles, but that too many facts crowded the memory without advantage. He was not only a constant observer, but he verified his observations, and, indeed, no amount of trouble was too great for him to take. He knew well, however, that the mere accumulation of facts is valueless until the knowledge thus acquired is co-ordinated, and in the capacity for generalisation Hunter was pre-eminent.

In 1789 he was attacked by severe illness, and until his death four years later his life proved a suffering one. Constant work and insufficient sleep doubtless shortened his days. The paroxysms of angina from which he suffered became more frequent and serious; yet nothing daunted, and although conscious his end was near at hand, he worked on until the last. His death, sudden and tragic in its circumstances, happened in St. George's Hospital whilst he was demanding from somewhat hostile colleagues what he regarded as a just concession to his pupils.

In the first instance Hunter's work was biological, his range including both the animal and vegetable kingdoms (and the mineral kingdom as well), and to illustrate his investigations he became a collector. But he was chiefly and finally a surgeon, and to the development of surgery he brought all the knowledge and all the training which he had acquired in other branches of science. It is because of this that he was able to transform surgery from a barren account of isolated cases into a calling founded on anatomical, physiological, and pathological knowledge, not of man alone, but of the entire animal world. He carries us beyond mere handicraft and detail into the region of general principles and law. The surgery of the Middle Ages was a trade; Ambroise Paré and Jean Louis Petit converted it into an art, John Hunter elevated it to the rank of a science.

Hunter's life and work inspired his successors with the spirit of observation, investigation, and experiment. We see this exemplified in his great followers, Cline, Abernethy, Astley Cooper, Travers, Green, Brodie, Lawrence, and others since their time. They have been makers of English surgery, and each in turn has contributed much to raise it to that high standard to which it has attained.

And now I may refer in detail, yet of necessity very shortly, to some small part of Hunter's work in illustration of what I have just said.

ANIMAL HEAT.

Animal heat was a subject in which Hunter was much interested. He speaks of it at length in the treatises on Inflammation and on the Animal Œconomy, and he contributed papers upon the subject to the *Philosophical Transactions*, and nowhere, probably, are his methods, and the advances he made, shown to greater advantage than in his experiments and observations on the heat-producing power of animals.

Just a century earlier, Harvey, his great predecessor, who equalled John Hunter in ability and excelled him in logical exposition, dealt with the same subject in the 71st chapter of his treatise on Development. No important advance had been made in the interval, and one may compare one essay with the other, bearing in mind that Harvey was already stricken in years when he wrote the *Calidum Innatum*, whilst Hunter was but 38 when he performed his experiments, although they were not given to the world for 20 years after. Harvey throughout his essay is trammelled by his historical knowledge. He repeatedly quotes Aristotle, and arrives at the conclusion that the heat of the blood of animals is neither fire nor derived from fire. Further than this he does not go, for to him heat is a principle inherent in the blood, and he loses himself in metaphysical speculation as to whether the blood is not the soul or even the life itself. Hunter starts in a different manner. The lapse of a hundred years had made the thermometer familiar to men of science. Black's work, published in 1757, was probably known to Hunter when he began his experiments, whilst the treatises of Priestley and Lavoisier saw the light before his essay was finally prepared for publication. Hunter had therefore a knowledge of respiration and of the function of the lungs, which was unknown to Harvey.

No fact is more interesting than the uniform bodily temperature of man. In all warm-blooded animals it varies in a quite insignificant degree. It is the same at the Equator and in the Arctic Circle, in the negro and the Esquimaux. Explanations of the manner of heat production in animals date indeed from the foundation of medicine. The ancients thought that there must be an internal furnace, Plato believed that the blood boiled in the heart, and it was not till the last century that pure speculation was replaced by experiment. Lavoisier indicated the right explanation when he regarded respiration as inducing a combustion within the tissues, and by degrees the present knowledge was evolved that heat is produced in every tissue and organ of the body, mainly by metabolism of the protoplasm. Rubner has very recently determined the exact relation of heat production to metabolism, having proved that the heat evolved by the combustion of a given quantity of food as shown by the calorimeter is precisely equivalent to the amount of heat production in an animal fed with a similar quantity of food.

Hunter's account is involved and difficult to understand. He discusses whether heat is matter or only a property of matter, and supposes heat and cold to be opposite principles; he lays down that the body can generate heat and has also a cold-producing power, and he is inclined to believe that there is a principal source of heat in the body although he does not indicate its locality. He considered animal heat must depend on some unknown force like that which maintains vitality, on a decomposition going on in the body and in pretty regular progression, though not on fermentation or friction, two of the explanations current at the time, and his opinion therefore closely approaches the present one as to the potent influence of metabolism. He pointed out the essential difference between the so-called warm-blooded and cold-blooded animals. The temperature is constant in the first, and within a wide range independent of external influences, while in the latter there is much less capacity for resistance, and the temperature varies with that of the surrounding medium.

Donders, in 1845, again called attention to these differences, and named the two groups those with a constant and those with a varying temperature, but in this he had been long anticipated by Hunter, whose observations and experiments on the heat of bees and wasps, of animals asleep and awake, and their temperature at different seasons, were endless. He ascertained that they could maintain heat while placed in a cold medium, and that they possess a cooling power in an atmosphere much higher than the standard temperature of the body, a phenomenon which he attributed in part to evaporation, but chiefly to a power inherent in the organism of destroying heat.

To discover the nature of heat production during the state of inflammation Hunter made many thermometric experiments in healthy and diseased parts in all kinds of animals, determining both surface temperatures and those of the interior of the body. He studied for years the temperature of bats and hedgehogs, both asleep and awake, starving and full of food. He noticed the capacity for resisting cold, up to freezing point at least, possessed by fishes, and the lower temperature of the addled egg under the sitting hen as compared with the living one. In his letters to his favourite pupil, Edward Jenner, he repeatedly refers to the subject. He wants to learn from him the temperature of bats and hedgehogs in summer and winter. He is especially interested in the hibernation of the hedgehog, and is constantly asking Jenner to send him supplies of the animal in order to ascertain its temperature at different seasons of the year. He also writes to him, "Have you any large trees of different kinds that you can make free with? If you have, I will put you on a set of experiments with regard to the heat of vegetables." Even in a letter to Jenner condoling with him on a disappointment in love, Hunter says, "but let her go"—he refers, I suppose, to the lady—"never mind her, I shall employ you with hedgehogs."

INJURIES OF THE HEAD.

Hunter's opinions on fracture of the skull and on trephining in injuries of the head typify the clear grasp he took of every surgical subject. They were not only far in advance of the time, but would find a very general acceptance in the present day.

> Depression of the external table may exist and yet the inner not be hurt. In cases of fissure only it may admit of dispute whether we are

> always to trepan. If there be no symptoms of injured brain, then it certainly will not be necessary, nor even always when attended by symptoms of injured brain, for the injury may only arise from concussion. However, as we cannot tell for certain whether the symptoms arise from concussion, compression, or extravasation of blood, it may be more advisable to trepan, as the operation can do no harm. In cases of depression of the outer table it would also be unnecessary to trepan, but it will be impossible to say certainly it is a case of this kind, for though there may be no symptoms of injured brain there may be depression of the inner table, which may do the mischief afterwards.
>
> In young people a fracture with depression may cause no bad symptoms at the time, but as the patient grows up bad symptoms may arise. In all cases of violence attended with compression the trepan is absolutely necessary, although we cannot promise relief from the operation. When the compression is by bone, the situation known, and a proper one for trepanning, there is no difficulty; but when the compression is by blood or pus, and there are no external marks of violence, it is more puzzling. However, rather than let a person die one would trepan somewhere or other, and if this did not answer one would not stop there, for I have seen collections of matter on the opposite side to that on which the blow was inflicted.

He recognised the greatly increased risk to life when the dura mater was opened, and the greater gravity of a collection of matter or blood between the dura and the brain as compared with one between the skull and dura. "The cases all died," he says, "when the dura mater was incised. This happened to Mr. C., whose dura mater I opened on account of the state of the parts beneath; he died, and I think it probable I killed him." His practise was very adversely criticised, and considered bad. The comment his annotator makes is that "surely nothing can be worse than to anticipate symptoms of compression by resorting to the trephine." Yet we know well that an indented inner table, even although it cause no symptoms at the time of injury, may give rise, as Hunter tells us, to severe cerebral disturbance in later life, and the surgeon who would not trephine in a case of punctured fracture of the skull, even in the absence of symptoms, would, I think, be held blameworthy. I doubt if our modern surgery, despite its knowledge of cerebral localisation, can advance much further than Hunter was prepared to go.

ANEURYSM.

"Aneurysm," Hunter says, "is a disease that must always kill if not attended to," and, had he done nothing else, his operation for the cure of popliteal aneurysm would have been in itself a great achievement. He performed the operation five times, and, considering the circumstances, with marked success. He urges his views modestly, and what he writes affords an insight into his character. For he tells us:

> I only give my own feelings. I go no further in theory than I would perform in practice. If patients be made acquainted with the consequences of the disease, and would submit to, or rather desire. the operation, I would have it performed as I should also have it performed on myself were I in the same situation. Yet I would wish every man to judge for himself, and not attempt an operation if he is fearful.

Nothing can better illustrate Hunter's method of applying his knowledge of physiology and pathology to surgery than this staying of the amputating knife in the treatment of popliteal aneurysm. We are all familiar with his crucial experiment, yet he himself had probably no immediate thought of its application to surgery in mind as he watched the growth of the stag's antlers in Richmond Park. He tells us that in July, 1785, he had a buck thrown, and tied his carotid artery. Immediately the pulsation in the velvet ceased and the antler grew cold; but on returning a week or two later. he found warmth restored and the antler growing. The buck was now killed and sent to Leicester Square, and upon examination Hunter found the ligatured artery obliterated and the circulation carried on by other, generally small, vessels above and below the place of ligature, which had thus restored the blood current in the growing antler.

Nevertheless, he felt uncertain whether the same result would occur in man, and in December, 1785, he carefully explained the alternatives to his first patient, a coachman, who was suffering from popliteal aneurysm in St. George's Hospital. He told him of the usually fatal method of incision and evacuation of the sac, the better chance of life by amputation but with loss of limb, and, guided by his experience of the return of the circulation in the antler of the buck, he said he would try to save both his life and limb. The patient consented, and six weeks afterwards he left the hospital cured of the aneurysm, although he died fifteen months later of another malady. Thus came about a total change in the treatment of aneurysm, for, although Hunter had no opportunity of tying any artery but the femoral, he pointed out that his method was equally applicable to other vessels, a suggestion speedily realised by two of his pupils, Abernethy and Astley Cooper. Hunter was also aware that pressure upon the artery above the aneurysm might effect a cure, and he indicated the flexion method of treatment, as well as the spontaneous cure of the disease, when he says "the sac by its increase often presses on the sound part of the artery, and becomes the cause of its obliteration, as I have seen more than once."

The Hunterian operation for aneurysm was at first carried out imperfectly. A large portion of the vessel was exposed and four ligatures applied. The artery and vein were included together in the ligature on the first three occasions, without apparently ill result, and Hunter did not attach importance to taking up a nerve as well. However, in the fourth case the operation was performed much as we would do it now. The patient was a man of 37, who survived till he was 86, and on his death the limb was dissected and the specimen preserved by Mr. Wormald for the museum of this College, where it now is.

VENEREAL DISEASES.

Upon none of his many works did Hunter bestow more care and labour than on that on *Venereal Diseases*. He was hampered by the belief that gonorrhœa and syphilis were due to the same cause, an idea based on a painful though faulty experiment upon himself. Yet the number of true facts he made out is very marvellous notwithstanding. He observed that syphilis originated in man, and was not communicable to the lower animals, and recognised the different modes of infection from venereal and non-venereal sources.

What is universally called the "Hunterian chancre" is thus described—a description which leaves little to be desired in the way of precision and accuracy:

> The surface of the prepuce or the angle between the prepuce and the glans is in some cases excoriated and afterwards ulcerated. In other cases a small pimple or abscess appears on the glans, which forms an ulcer. A thickening of the part comes on which at first is very circumscribed, not diffusing itself gradually and imperceptibly into the surrounding parts, but terminating rather abruptly. Its base is hard and its edges a little prominent.

Hunter's observations in regard to gonorrhœa are clear-sighted and discriminating. He noticed that in the earlier stages of the malady the inflammation is restricted to the anterior portion of the urethra, and that epididymitis is a late symptom. He observed that in gonorrhœa the vas may become obliterated, which he says will have no bad consequences if only one testicle be affected, as the other will suffice for all purposes. He thus anticipates the observations of Gosselin and Curling on Aspermia from this cause.

Hunter describes the various forms of stricture in a graphic manner, points out that the bulbous portion of the urethra is more liable to the disorder than the whole of the urethra besides, and that he never saw a stricture in the prostatic portion of the urethra. He tells us that it happens generally, if not always, that gleet is associated with stricture, and that this symptom often leads us to a knowledge of a stricture, or at least affords a suspicion of its presence.

In regard to treatment, he considers that the cure of stricture can only be effected by local applications, and that mercury has been given erroneously and without success. A surgeon should in general first make himself acquainted with the situation of the stricture by an ordinary-sized bougie, and afterwards make use of a smaller one. Dilatation can be effected by the bougie, but it is seldom more than a temporary cure. There is always remaining the original tendency to contraction, and this recurs sooner or later. His description of the use of bougies is full of practical interest; he mentions a new form as one of the greatest improvements in surgery, and can scarcely persuade himself that in using it he is treating the same disease. He says:

> When I was attending the first hospitals in this city in the year 1750, the common bougies were either a piece of lead or a small wax candle, and although the present bougie was then known, yet due preference was not given to it nor its particular merit understood. A piece of the end of the leaden bougie sometimes broke off in the bladder, and quicksilver was injected to dissolve it.

There is in the Museum a series of bougies which belonged originally to John Abernethy.[1] They are doubtless quite similar to and probably copies of those to which Hunter alludes.

His descriptions of the complications dependent on the presence of stricture are accurate and detailed. Extravasation of urine, perineal fistula, false passage, abscess in Cowper's glands, in the prostate, and periurethral abscess are fully described and dealt with. In treating of retention of urine, which he calls "suppression," he gives an account of tapping the bladder above the pubes, through the rectum, and by way of the perineum; he details the circumstances which, in his opinion, indicate the choice of method in a manner which could scarcely be improved in the pages of a modern textbook, and in describing perineal puncture of the bladder he goes very close indeed to the modern operations suggested by Sir John Simon and Mr. Wheelhouse.

INFLAMMATION.

Hunter dedicated his epoch-making treatise on the *Blood, Inflammation, and Gunshot Wounds*, to the King; and it is in many respects his most important work. It was planned after the reduction of Belleisle and the Peace of 1763, upon the basis of notes and observations made during his eleven years' residence in London and on his experience of the inflammation that usually attended on gunshot wounds. In it he makes a bold attempt to enunciate the laws which govern life, not only in healthy, but also in diseased, conditions. He recognises that the physiological state of the organism does not pass abruptly into that of disease, but by a gradual transition. No previous physiologist had adopted similar views, and Hunter's clear insight into the processes at work in the animal body furnished a new departure in biological science, the value of his opinions being shown by the impression they produced upon every succeeding worker in the same field.

Not only are the thoughts new, but the language in which he formulates them had in many instances to be new also, and was often, as might be expected, difficult to understand. Life he believed to exist in every part of the animal body susceptible of impressions which excite action. There is no part, he says, that does not possess more or less of this vital influence, and the impressions thence arising produce infinite variety in all natural and diseased acts. He says:

> I cannot tell how far each part might possess an equal quantity of life, but if we were to judge it by its power of action we should judge tolerably well. Disease would seem to give some intelligence with regard to this matter, but how far the resistance to disease and power of restoration depend on the power of life I cannot say. I believe it may be set down as a rule that those parts endowed with most action resist disease most strongly, and in disease restore themselves most readily to a healthy state.

This law has exceptions, yet it certainly applies in a large degree to all pathological changes. He regarded the blood as possessed of life like the more solid parts, and that it formed the bond of union between the structures divided in a wound. In what he calls "union by first intention" he recognised a process essentially different from that of inflammation. He says:

> In the adhesive inflammation the vessels, being enlarged, begin to separate from the mass (of the blood) some portion of the coagulating lymph with some serum and also red globules, throw it out on the surface and cover the sides (of the wound) with cells, which easily unite with the opposite ones with which they are in contact, forming the first progress of adhesion.

He observed the vessels passing into and ramifying in the new material, so that the vessel was plainly continued from the old into the new tissue. He adds that:

> In many bruises as well as in simple fractures, where the cavities are not exposed, the inflammation in most of these cases is capable of being resolved. In parts which have been divided and exposed the inflammation is in a great measure controlled by bringing them together; or where parts are not brought together Nature attempts to prevent inflammation by covering the wound with blood and forming an eschar. The adhesive inflammation serves as a check to the suppuration by making parts which would otherwise infallibly fall into that state previously unite in order to prevent its access.

The views and principles he thus formulated are essentially correct; they have served as a foundation for subsequent wide-reaching investigation, and form the basis of subcutaneous surgery and the treatment of wounds which, previously kept open, Hunter sought to close.

After describing what he terms "true suppuration," which he contends is the result of inflammation only, he goes on to speak of swellings without the usual symptoms of inflammation often containing collections of matter resembling suppuration. He considers these collections to be scrofulous in nature, common in young subjects, rare in the fullgrown or old. He thinks their contents are erroneously called "purulent." To this category he refers the slow swelling of joints and of lymphatic glands, the scrofulous enlargements and suppurations of the knee, the foot, and the ankle. He completely differentiates the breaking down of a tuberculous deposit from true suppuration occurring in the course of simple inflammation. He calls attention to what he terms the "curdly substance" in the fluid, distinguishing it from true pus. He tells us that these collections move easily from their original seat to some other part by slight pressure or their own weight. The migrating collection which descends from a carious vertebra to the groin he calls "an abscess in a part" in opposition to "an abscess of a part." Indeed, he gives the salient characters of these disorders with the keenest insight, and his descriptions suggest to me the masterly power of some great artist who with a few strokes of his pencil is able to indicate a powerful situation or suggest a startling action.

When we study Hunter's works we find many later views and advances foreshadowed. It is wonderful to reflect on how much he has seen and described, the correctness and depth of his observations, and his ability to utilise the experimental method. There is scarcely any branch of anatomical or physiological inquiry he did not illuminate, and few subjects in either medicine or surgery which have not benefited by his researches.

His remarks on the union of severed tendons were apparently suggested by the accidental rupture of one of his own, and prompted Delpech, many years afterwards (1816), to divide for the first time the Achilles tendon for pes equinus. This proved the foundation of orthopædic surgery developed by Stromeyer and since his time.

"Of cancer," he reminds us, "no cure has yet been found, for what I call cure is an alteration of the disposition and the effects of that disposition, and not the destruction of the cancerous parts." And to-day we can only, alas! endorse what Hunter said.

In that branch of surgery where we boast of our greatest and most recent advances, Hunter's originality is seen in the new paths of practice he indicated. He advises opening and washing out the abdomen in suppurative peritonitis, and points out how often adhesions form which prevent the otherwise fatal results of a perforated bowel. Though the establishment of ovariotomy as a successful surgical operation was postponed until the present generation, yet he wrote that

> tapping is but a palliative in ovarian dropsy. The tumour generally renders life disagreeable for a year or two, and then kills in the end. There is no reason why women should not bear spaying as well as other animals. It would be simply opening the cavity of the abdomen, which we often do without inconvenience.

Did time permit, or the occasion demand it, I might quote other examples of the wonderful foreknowledge of Hunter. From the high standpoint of his own learning he was able to grasp what was previously unknown, and to utilise his discoveries for the common good both of science and of mankind.

GUNSHOT WOUNDS.

John Hunter attached the greatest value to the experience he had gained while serving with the army. Little of real importance had been previously written on military surgery, and the practice pursued had hardly been reduced to the common rules of surgery. We know, too, from the records of the time what imperfect education and training were accepted from those seeking admission to the public service, and that it was almost unnecessary for a man to be a surgeon to practise in the army.

Hunter writes:

> A gunshot wound is often not understood at first. It may be impossible to tell what parts are implicated; a bone or large vessel may be contused or a viscus injured. A part of the intestine may have received a contusion so as to cause a slough, and on the slough becoming separated a new symptom will probably appear, for the contents of the intestines will come through the wound. But these cases will not be so dangerous as if the same loss had been produced at first, for by this time all communications will have been cut off. Nor will it be so dangerous as when a considerable blood vessel is deadened, for in this case, when the slough comes off, the blood getting a free passage into the wound, as also out of it, death will probably immediately follow. Gunshot wounds often do much mischief to vital parts, and their effect will be according to whether the soundness of the part wounded is essential either to the health of the whole body or the uses of the part wounded, as an important viscus whose function is arrested, or a large joint whose uses are impeded. Gunshot wounds often admit of being classed with small deep-seated wounds (punctured), which are always of a particular kind. Indeed, the variety of circumstances attending gunshot wounds is almost endless.

He discusses the different effects resulting from the variable velocity of the projectile, and the consequent differences in injuries of bone and of soft parts. He speaks of the straight-course and the keyhole, punched-out fracture produced in the bone by a bullet with great velocity, and the devious track it may follow when travelling slowly. The wounds made by musket-balls in the wars of his time were very different from those produced by modern rifles, whose small bullet may traverse the soft parts without doing them much damage, while it pulverises the bone. The old flint lock, propelling a large spherical bullet with a small velocity, produced large contused or lacerated wounds of soft parts and splintered the bone.

Hunter's work on *Gunshot Wounds* was a great step in the direction of their more rational treatment, and laid the foundation of modern military surgery. He writes:

> It has been hitherto recommended, and universally practised by almost everyone, to enlarge the external orifice of gunshot wounds immediately on their being received, or as soon after as possible. and this without any discrimination between one gunshot wound and another.

Hunter emphatically protests against this practice, if only for the reason that few gunshot wounds are alike, and the same practice cannot apply to all. He urges:

> It is contrary to the rules of surgery as founded on our knowledge of the animal œconomy to enlarge wounds simply as wounds, for no wound, however small, should be enlarged unless something necessary is to be done which cannot be executed unless the wound be enlarged. This is common surgery, and ought to be military surgery.

Here his rare intelligence ran counter to generally received opinions and to the practice strongly inculcated by his illustrious predecessors, Ambroise Paré, Richard Wiseman, and Baron Percy. But, he continued:

> It would be absurd, however, for anyone to suppose that there is never occasion to dilate gunshot wounds at all, but it is certain that there are very few in which it is necessary.

He tells us how seldom a wound need be dilated on account of the bullet itself:

> Balls, when obliged to be left, seldom do any harm when they are not in a vital part, and have been known to lie in the body for years, and yet the person has found no inconvenience.

There can be little doubt of the soundness of this doctrine, and it is certain that in very many instances greater injury has been inflicted in the unavailing search after the bullet, or even in its extraction, than the wound of itself could cause. Yet how persistently this superstition, I would call it, lingers in the public mind! The first anxiety of a man who is shot, soldier and civilian alike, is that the bullet, wherever lodged, should be forthwith extracted. The number and infinite variety of bullet finders and bullet extractors which have been invented show that the art of bullet hunting has flourished in spite of all that Hunter urged against it. "If the wound will admit it, the finger," he says, "is the best instrument to make exploration with," an opinion I heartily endorse, especially since the risks formerly attending its introduction may now be removed.

What would Hunter think of our improved methods of diagnosis or the discovery by the new photography of the exact position, amount of comminution, and direction of a fracture, the locality of a foreign body, and the determination of the depth and relation to the surface of a lodged bullet, so that if, for any reason, it be deemed desirable to operate, it may be cut down upon with almost as much precision as if the tissues covering it were translucent? He inquires:

> What is the best practice where it is supposed the intestines may be wounded? I should suppose the very best practice is to be quiet and do nothing.

How much, therefore, he would admire an exploratory operation for the discovery of a perforated intestine, the restoration of its continuity by one of the methods employed, the aseptic rendering of the abdominal cavity, and the frequent recovery of the patient without reaction, pain, inflammation, or any sort of complication. He tells us that:

> Little notice has been taken of wounds in the chest and lungs, because it was assumed nothing could be done for them............ Yet I have seen several cases of gunshot injury where the patient got well after being shot quite through the lungs.

And our recent military experience proves how right Hunter was, since many persons whose lungs have been traversed by modern projectiles not only recover, but seem scarcely to suffer inconvenience from the injury either at the time or afterwards.

Hunter differs, however, not only from those who preceded him, but from modern practice and opinion, in his advocacy of secondary in preference to primary amputation. He considers immediate amputation improper, as the surgeon cannot, under the circumstances. master the case adequately, and few amputations on the field of battle do well, "the only argument in their favour being that the wounded man is moved with greater ease without a limb than with a shattered one"; but I think it is now universally admitted that cases which demand amputation should be operated upon at the earliest period, either in the first dressing station or the field hospitals, and that a delay of 24 hours or longer very seriously increases the risks.

While, assuredly, Hunter was far in advance of his predecessors in the teaching and practice of military surgery—in some instances to such a degree that his views would hold good to-day, yet the conditions of warfare have become so changed and gunshot wounds are so different, that the surgery of the battlefield, no less than that of civil life, has been revolutionised. Hunter clearly recognised that the destructive effect of a bullet on animal tissues depends on its velocity rather than on its weight. This is the characteristic by which the modern small-bore bullet, with its cupro-nickel or steel envelope, differs so greatly from the round bullet of Hunter's day, and on which those modifications of gunshot injuries which have taken place depend. The old round bullet produced at all ranges more severe wounds of the soft parts than the modern missile does, and at short ranges probably caused as extensive a fracture of a bone, but it so rapidly lost its energy that at distances of even a hundred yards it frequently flattened out against the shaft of a long bone without causing fracture. The modern bullet produces at almost all distances unimportant wounds of muscular tissue, but it is apt to cut pieces out of the large vessels, which render any hæmostatic process ineffective, and in consequence death from primary hæmorrhage on the battlefield will be far more frequent than before. Injuries to long bones by the hard-mantled bullets produce, at ranges of over 2,000 yards, tunnelling without any great fragmentation, while, as the range decreases, the extent of the fissuring, the number of the fragments, and the distance to which the latter are driven steadily increase, until at ranges under 300 yards the extensive damage and destruction on the exit side of the limb have all the appearance of being produced by a small-arm shell or explosive bullet.

Gunshot fractures of the shaft and of the articular ends of the long bones were considered to demand immediate amputation in Hunter's day, a rule which permitted but few exceptions for military surgeons of former times. In modern surgery the rule, if any, tends the other way, and only in exceptional cases—those in which the injury is not confined to the bone and unimportant soft parts, but in which the main vessels and nerves are also implicated—are more radical procedures to be recommended. In consequence of the suppuration which formerly always occurred in these cases, the comminuted and displaced pieces of bone, acting as foreign bodies, had to be thrown off by Nature's efforts, and consolidation of a fracture was often long delayed or did not take place at all, while cases treated conservatively usually died of surgical infective diseases. In recent campaigns gunshot fractures of the long bones, even when greatly comminuted, and penetrating injuries of joints, have been treated by conservative methods with success, except in cases where the blood and nerve supplies of the limb below are cut off by laceration of the main trunks. Amputation is only resorted to when no other resource remains to the surgeon, and, occasionally perhaps, when military exigencies necessitate the immediate transference of the wounded to the base of operations, circumstances which render conservative treatment, at all events for injuries of the lower limb, either impossible, or, at least, more dangerous than operation. No doubt some small percentage of cases of gunshot injury of long bones and of large joints did formerly recover without amputation; but it has only been since Listerian methods of treatment were perfected that conservative treatment in time of war, on a large scale, and as a rule, has become possible to the military surgeon.

Hunter was the great military surgeon of his time, as may be seen both in his teaching and in his writings, and our opinion of his greatness must be enhanced when we remember the scanty means at his disposal for bringing his surgery to a successful issue.

THE HUNTERIAN MUSEUM.

In 1700. six years after Hunter's death. Parliament purchased his collection, and subsequently handed it over in trust to the Royal College of Surgeons for the public advantage. Further grants of money were voted to the College to erect a proper building for preserving and extending "Master" Hunter's collection, and to build a theatre for the delivery of public lectures on anatomy and surgery.

The Museum has been fitly called Hunter's chiefest monument, and is surely sufficient for the fame of any man. He worked for it constantly, sacrificed to it his other occupations, and devoted all his earnings to its development. His aim was no less than to illustrate the whole question of life both in health and in disease. Nature's handiwork in all its manifold perfections is there clearly shown forth by the never-ceasing labour of this great intellect. Any ambiguity that may sometimes mar his written words is not to be found in the careful arrangement of specimens which Hunter has displayed to us. The exposition is one almost too great for the human mind to grasp, much more for one man in any adequate sense to realise. Yet Hunter did in the main compass his splendid aspirations.

He laid all his friends under contribution. Sir Joseph Banks procured for him every strange creature he could lay hands upon, and divided with him the collection he had made during his travels round the world. Indeed for long Hunter had the refusal of every curious animal imported into the country. Smollett, a great friend of Hunter's, illustrates the public view when he writes to him, "I mean to send you my poor carcase in a box, to be placed among your rarities." Hunter's letters to his friends are full of urgent appeals to send him everything which he could utilise for his purposes. His later letters are, if possible, more importunate than the earlier ones. He expresses regret to a correspondent at the loss on the way home of two Havanah birds and a collection of insects. He much wishes for information on the natural history of the swallow, whose habits he remembered in Portugal. He wants ostrich eggs just about to hatch, and directs them to be put into proof spirit after cracking the shell.

> If a foal camel was put into a tub of spirits and sent, I should be glad. Is it possible to get a young tame lion, or, indeed, any other beast or bird? If chameleons were sent, it should be in the spring. I want everything respecting the bee tribe, such as wasps with their nests, also hornets with theirs.

What a number of demands, and in one letter out of many similar ones, and what an illustration of his zeal in the acquisition of knowledge!

The Hunterian collection of comparative anatomy cannot fail to excite surprise and admiration. We find in it an attempt to unravel the mystery of life, to display the various structures by which the physiological processes in plants and animals are carried on, commencing with the lowest forms and ending with man himself. The anatomical preparations are arranged according to the subjects they are designed to illustrate, and we have, besides preparations of healthy and diseased conditions in plants, a series of skulls, skeletons of almost every known form of animal, many examples of deviations from normal types (which Hunter showed to be nothing essentially apart from natural development, but aberrations due to excess or defect in the ordinary process of growth), and also a considerable number of fossils. Hunter's collection numbered nearly 14,000 specimens, with ten volumes of manuscript description and notes, beside other catalogues and numerous drawings. He dissected more than 500 different species of animals, many of them more than once, and has left records of 315 dissections. What man ever accomplished such a prodigy of work, or ever before illustrated his inquiries on so gigantic a scale? He proves that during the development of the higher organisms the parts usually undergo progressive changes from simple to more complicated structure, and that the transitional form can often be recognised as a permanent condition met with in some so-called inferior form of life. The wide-reaching effect of these principles of Hunter finds its further development in the works of Darwin and other philosophers who have followed in his footsteps but have not departed from his methods.

Since Hunter's time the number of preparations has increased to about 50,000 specimens. His threescore skulls have now grown to nearly 4,000, illustrating many difficult problems in ethnology. The pathological collection is five times as numerous, and in all the departments there has been continuous increase.

Hunter's legacy to the world of wisdom and knowledge was great, but the example furnished to us by his indomitable industry and clear recognition of the importance of an extensive knowledge of Nature in order to rightly interpret its problems, is even of greater value. The College has proved the wise custodian of this great institution, and many of its most illustrious sons have devotedly worked towards its completion and perfection. Nowhere in the world exists its like. It is one of our national glories, and it is a glory for our profession.

CONCLUSION.

Hunter was a profound philosopher, a great naturalist (using the term in its widest sense), a pre-eminent collector, and the foremost surgeon of his time. It was to make surgery more perfect that all his work subserved, and in it he reached the highest rank. He rendered to his art and science greater service than any man had done before him, and his claim to our admiration rests not merely on what he did, but on what he suggested might be done.

On the brass sacred to his memory in Westminster Abbey this College calls him the "founder of scientific surgery." His claim to this proud title was asserted in the first of the Hunterian Orations; it has been renewed in every successive oration where Hunter's life and labours are reviewed by the most eminent of our profession, and it has never been called in question.

One cannot but feel impressed at the multitude of the subjects which engaged Hunter's interest and attention, the greatness of his achievements, and the far-reaching influence of so many of his inquiries. His spirit survives in the energy of others who follow in his footsteps, and serves to stimulate every student of natural science. He possessed that high form of intelligence which can convert abstract scientific truth to practical uses; hence it is that, finding surgery scarcely more than a mechanical art, he transformed it into a scientific calling, based upon principles which rest on the solid foundations of biological knowledge and collateral science. His supreme endeavour was to study life in all its many-sided manifestations. This is the noblest form of study and the most inexhaustible, yet the problem of life will remain a mystery transcending the power of human investigation or human imagination.

Billroth regarded Hunter as one of the greatest men the English nation has produced, and that his work on *Inflammation and Gunshot Wounds* is the corner-stone of modern English and German surgery. "From Hunter's time to the present day," he says, "English surgery has had about it something noble, and nowhere, either in ancient or modern times, can the pattern be found of a grander scientific career."

Masters of our craft at epochs in surgical history have from time to time declared their art to be then so near perfection that further improvement was impossible. May we not, nevertheless, hope and expect that surgery will accomplish new triumphs and yet greater completeness? I am not of those who think there can be any finality in human progress; to believe so would, I consider, render life no longer worth living in its higher sense and greater aspirations. Rather let us consider ourselves as having but just crossed the threshold of the great temple of science, knowing only a small part of that which still remains to be known, and be mindful of Bacon's words:

> Let no man upon a weak conceit of sobriety, or an ill-applied moderation, think or maintaine, that a man can search too farre or be too well studied in the booke of Gods word, or in the booke of Gods workes, but rather let men awake and cheerefully endeavour and pursue an endlesse progresse or proficiency in both.

Much as we have already achieved in every branch both of the science and art of our profession, more especially during the latter half of this century now drawing to a close, our past experience tends to show that in the future likewise great things shall come to pass. In our lifetime surgery has been wholly changed. The discovery of anæsthesia has lifted a weight of sorrow from the world, and, as Oliver Wendell Holmes, both poet and physician, has expressed it, "The fierce extremity of suffering has been steeped in the waters of forgetfulness, and the deepest furrow in the knotted brow of agony has been smoothed for ever."

Anæsthesia has besides rendered surgical procedures capable of a realisation which not even in dreams could we previously have supposed possible. It has permitted many new departures in surgery, made many operations feasible which had previously been condemned, and has proved a help of extreme value in the diagnosis of disease.

Furthermore, one of the scientific descendants of Hunter, deeply imbued with his spirit, transcendently patient and painstaking in detail as was his master, as minute an observer of Nature's ways, and as careful an experimenter, after much trying and much thinking, has realised, in the discovery of the methods of antiseptic surgery, a benefit to mankind which only surgeons can to the full appreciate. What was hazardous before is now rendered safe, what was accomplished with pain and suffering is now free from both. There is scarcely a limit to what might be said in praise of this great work. The name of Lister, like that of John Hunter, will stand forth in the records of scientific progress as one who has immeasurably benefited humanity, and as the author of the means whereby surgery has been mainly enabled to make that marvellous progress of which we are all so proud. This is recognised throughout the world, and were I not convinced that our science has fresh achievements in store, I should say that Lister had finally crowned the edifice whose corner-stone Hunter laid. Of all the great minds which have illuminated the scientific world and guided its destinies, John Hunter's is the one which first directed surgery into the pathways of science, and, dying, left to surgeons a future in the memory of his past. He is the one great man without whose aid it is impossible to imagine surgery all that it now is; we cannot take his influence away and yet retain all that we now possess. Our science might have spared some other workers, but it could not have become the science we know without John Hunter.

CLINICAL NOTES UPON THE RECTAL CONTOUR AND CONSISTENCE OF A THOUSAND PROSTATE GLANDS.*

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ON no question in urinary surgery are opinions so apt to differ as upon the condition of any given prostate gland, as estimated by digital examination of the rectum.

Valid reasons exist which condone this variance of opinion. There are even reasons which render it unjust, I submit, to criticise too narrowly any statement which has been made by any consultant or practitioner, concerning the size, consistence, and rectal contour of any given enlarged prostate gland. I will briefly touch upon these reasons.

It is believed that the sense of touch varies most in acuteness of all the senses in different individuals. Certain it is that, unless guided by the additional sense of sight, few will agree, from touch, as to the size of any individual body. Again, digital examination of the rectum is undertaken but rarely. It irks us, it annoys the patient, and we only insist upon it when symptoms of prostatic trouble are present. Of the consistence and of the contour of the prostate in health, therefore, few of us really know anything.

But more than this, the prostate may differ most remarkably in size in the course of a few days, even a few hours. One day it may be normal, the next it may have increased to one-third again the size from subacute inflammation or congestion. The enlarged prostate differs in shape and in tenseness under the influence of ether, during sleep, after coition. Its shape changes in various positions of the body, and in different degrees of bladder distension. Moreover, like the uterus, the prostate suffers from minor degrees of prolapse—even rotation—and its tenseness is often influenced by the brace-like action of its muscular sling, the levator ani. Many other conditions mask its consistence and actual size entirely. Thus, swelling of the mucous membrane of the rectum, soft carcinoma of the post prostatic pouch, even urine in an atonic bladder will cause its boundaries to be obscured. Were I to prove these statements to you, I should weary you needlessly, and fill the entire time which I wish to devote to a consideration of those special points in the contour of the prostate which will, I trust, aid you in the diagnosis and treatment of urinary disease. "To learn," however, as has been truly said, "is not the passive of the verb to teach"; you must seize every opportunity of educating your own fingers.

METHOD OF COLLECTING FACTS.

Twelve years ago I suddenly realised that I knew nothing about the feel of the prostate gland *per rectum*, and the literature gave me absolutely no information. I started laboriously to collect facts about its size and shape in health and disease, in the hope that I should at last be able to recognise certain fixed conditions which might prove important atoms in the molecule of urinary diagnosis. In order to educate my sense of touch and to obtain a record of my cases I started modelling my patients' prostates in clay,[1] just as, later, in order to teach my eye in electric cystoscopy I found myself forced to model in coloured wax[2] the various appearances I saw with the cystoscope.

Both were tedious, time-absorbing methods and I do not suggest that you should follow them, although they proved of great teaching value to me personally. I mention them merely to show that an earnest endeavour has been made to collect *accurate* details. Later on I had not the time or the need to model. By rough diagrams I was able to preserve a record of the conditions I wished to bear in remembrance, and it is upon these diagrams and my notes of them that my lectures are based.

At first all was chaotic; many a time I felt hopeless, for the prostates of healthy men appear to differ in contour almost as much as their noses or any other facial lineament; but gradually matters shaped themselves. Moreover, by examining year by year the same prostates, and by drawing them I have realised some of those progressive changes which disease was producing in their consistence and contour.

HOW TO EXAMINE A PROSTATE OR BLADDER BASE.

The patient empties his bladder as far as he can, and bends over a couch or stool, so that his body forms a right angle with his legs. Always make this your routine position, and in your notes draw attention to the position by the figure ⌉.

If you wish to realise the necessity for this precaution, take a patient with a soft, much enlarged prostate. Examine him in the routine position. Now make him kneel face downwards, and draw his head well towards his knees; the prostate will be found bulging towards your finger, tense, and much larger. Let him now lie upon his back, separate his legs, and again examine his prostate. It will be found higher up in the pelvis, its elasticity will be diminished, and its size decreased. Now give ether, and examine the patient again upon his back; you will be surprised to find the prostate still smaller, higher up, and less elastic. Your calculus sound, which before had probably to be greatly depressed between his legs in order to be introduced fully, now rides in easily, showing that the prostate gland has rotated back on a transverse axis. Now select a healthy young male. Your finger recognises on entering the bowel that the outlines of the two lobes of the prostate are equal, that their consistence is firmish, that their contour is a little prominent, and that they are separated by a fine groove—"the interlobar sulcus." Accustom yourself to detect that sulcus, especially the upper part; it is the most important of urinary landmarks. Now pass your finger beyond the transverse line where the prostate merges into the bladder base. The bladder muscle is now felt smooth, soft, and even. You do not often feel the vesiculæ seminales mapped out, as you are led to expect; you rarely will. If you do, there is a block at their orifices, or an inflammatory thickening, or a tuberculous deposit in their walls.

THE URINARY DISEASES WHICH CAN BE SUSPECTED OR RECOGNISED BY RECTAL EXAMINATION.

I propose taking the diseases you may suspect or recognise on rectal examination of the prostate and bladder base in their order of clinical importance. I have no difficulty, or even hesitation, in selecting that which should be considered first. It is urinary tuberculosis.

No surgical disease of the urinary tract will so mislead you by its vagaries, or so baffle you in your well-meant efforts to relieve its active phases, or so fiercely resent your instrumental interference, as urinary tuberculosis. No disease demands greater judgment in its treatment, none obtains less.

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* First lecture of a series upon The Value of Rectal Examination in the Diagnosis and Treatment of Surgical Urinary Disease, delivered at the London and St. Peter's Hospitals, session 1897-1898.

The reasons for all this obscurity rest in the insidiousness of the onset of the disease, in its marked susceptibility to septicity, and in the power which it possesses of imitating every other disease of the urinary tract. With the exception of the enlarged prostate of old age, I know of no disease of the urinary tract, from urethritis to renal carcinoma, which this arch mimic does not simulate, and that very closely. But a clue can be obtained by rectal and testicular examination in a large percentage of the cases in the very earliest onset of the symptoms. In 157 male patients with urinary tuberculosis who have been under my care, a typical deposit was found on their first[3] visit in the epididymis in 33 cases (21 per cent.); in the epididymis and prostate coincidently in 38 cases (24 per cent.); in the prostate and seminal vesicles in 5 cases (3 per cent.); in the prostate alone in 6 cases (3 per cent.); in the prostate and bladder (the latter cystoscopically) in 10 cases (6 per cent.). If we add these together, it will be seen that a deposit could be detected by the finger in 58 per cent. of the cases on their first visit.

During the course of the disease the chance of its detection by the finger is still further increased, for 80 per cent. finally present tangible evidence of tubercle in the lower genito-urinary organs, and in only very few instances does the patient pass through all the stages of the disease and die, without the epididymis or the prostate becoming affected. A careful examination of these organs is obviously therefore of the utmost importance.

WHAT ARE THE FORMS WHICH THE PROSTATE ASSUMES IN TUBERCLE?

I regret to assert that our textbooks are either indefinite or inaccurate upon this point. Some teach you to expect "shotty" prostates; that is, the feeling of small shot-like hardness over the prostatic surface. It is rare indeed to find this condition (3 per cent.), and augurs badly for the patient. Others describe massive indurations of the prostate and vesiculæ as being common. This is another infrequent stage in actual work (5 per cent.), and may be taken as indicative of septic inflammation in addition to tubercle. Others again point to the vesiculæ seminales as being most often infiltrated. This is perhaps truer, for the vesiculæ may become affected before the prostate has become implicated (14 per cent.); but it is not common in the early stages.

The cause for this variety of opinion is clear to one watching and examining the same case or cases year after year. Such a one will realise that the deposit passes through a variety of stages, as it does in other parts, and that according to the stage so is the character and contour of the deposit in the prostate, vesiculæ, and epididymis, and that the conditions just enumerated are merely stages in the life-history of the deposit. Let me illustrate. Perhaps it will enable you to follow me more closely if I sketch rapidly those changes which are noticed in the contour of the prostate during the life-history of a tuberculous deposit.

Tuberculous deposit is met with in the prostate under three clinical conditions. In young males who merely ask your opinion about the nature of a lump which they have noticed in one epididymis or the other; or in young males who consult you for the relief of symptoms similar to those produced by stone in the bladder; or in the adult male who complains of symptoms like those of stone in the kidney. Let us glance at a couple of examples.

Class 1. Tubercle appearing coincidently in the Prostate and Epididymis.—Take an uncomplicated case first. A young man, aged 17 to 20, with no history of masturbation or venereal disease, who has never been sounded for stone, or catheterised or cystoscoped. Such, clinically, is a virgin case. He presents himself with a painless, rounded, marble-sized lump in the lower end of one or other epididymis. In the corresponding lobe of the prostate you will probably find an exact counterpart of this boss, partially buried in the upper third or middle third of the lobe near the sulcus (Fig. 1). This roundish hard body is insensitive; the rectal mucous membrane covering it glides over it healthily. You need have no hesitation in diagnosing it as tubercle. Every lump in the epididymis is not necessarily tubercle; but such an isolated knot in a prostatic lobe is tubercle if it accompanies a knot in the corresponding globus minor. With these conditions you may have no symptoms; they will develop in due course, months, even years, after.

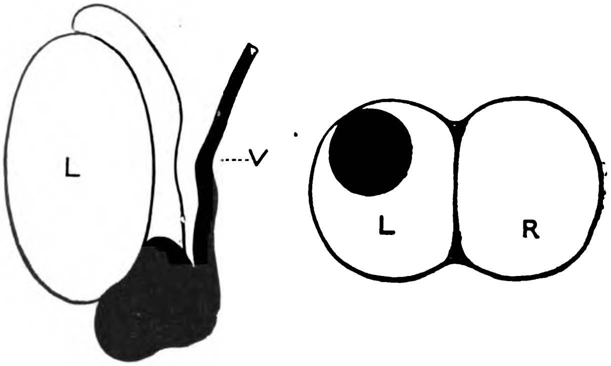

Fig. 1.—Diagram of deposit of tubercle in left epididymis and left lobe of prostate.

Class 2. Tubercle appearing coincidently in Prostate and Bladder.—Take another virgin case, a young man, aged 17 to 20. He comes complaining of pain at the end of his penis after urination, undue frequency of that act, and occasional attacks of hæmaturia; the urine, when bleeding is absent, being lightish and murky from pus. On examining *per rectum* you find a hard knot buried in one of the lobes of the prostate (Fig. 2). This is tubercle, and the cystoscope will demonstrate the bladder base to be affected as well. The corresponding epididymis will become in time the seat of a similar indolent knot. Such prostatic deposits may remain indolent, or cretify, or become absorbed.

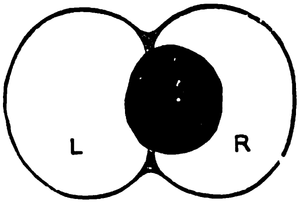

Fig. 2.—Diagram of tuberculous deposit in the right lobe of prostate.

TUBERCLE STARTING IN INFLAMED STATES.

But suppose this indolent epididymal knot becomes inflamed, or suppose it was actually started by an acute inflammation, such as that produced by gonorrhœal or traumatic epididymitis, in a man with strongly marked tuberculous

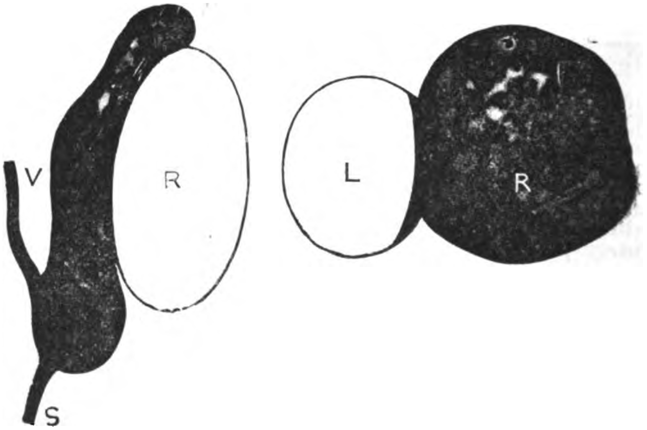

Fig. 3.—Diagram of acute tuberculous right epididymitis with massive swelling of right prostatic lobe. V vas; S sinus where abscess burst. No urinary symptoms.

tendencies. Do you find a small buried knot in the corresponding lobe of the prostate? Not often. In such a case the prostate generally assumes a condition similar to that in the epididymis; and if you examine when the inflammatory condition of the prostate is at its height, you will be surprised at the resemblance. The deposit is large, irregular, and tender. It causes the entire prostatic lobe to project sharply on the rectum, so that the finger detects it at once (Fig. 3). The mucous membrane of the rectum may become adherent to it, puckered, or even softened at one spot (Fig. 4.)

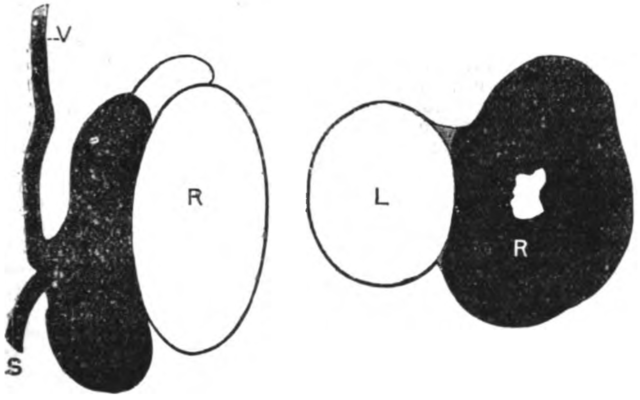

Fig. 4.—Same case a few weeks after; recession of epididymitis, but softening of prostatic deposit and perforation of rectal mucous membrane marked by unshaded centre.

The inflammatory wave may even spread on the corresponding vesicle, and the united mass of indurated exudation forms a thick projecting cake on one side of the bladder base. Remember that inflamed tuberculous deposits are always the most difficult to diagnose, and that it would be wise for you to hesitate before pronouncing such a condition as definitely tuberculous. I may here say, parenthetically, that years ago it seemed to me that these inflammatory cases would run a much more rapid course, for I argued that septicity must carry the essential elements of the disease far and wide. I now see that this view is incorrect. I am inclined to believe that the inflammatory exudation retards the progress of the disease, for it often erects a wall of dense material round the tubercle, and I submit the same effect is produced by that tough inflammatory exudation which we sometimes encounter around a tuberculous kidney.

THE ABSORPTION OF TUBERCLE IN THE PROSTATE, VESICULÆ SEMINALES, AND EPIDIDYMIS.

I may be stating an already accepted fact when I assert that well-marked tuberculous deposits in the prostate and vesiculæ become absorbed and disappear, especially if they have been inflamed, or if the bladder has been absolutely stripped of its mucous membrane. If such a termination is acknowledged it should be more widely known and taught, for it introduces a great difficulty in diagnosis.

As an illustration I choose the following out of twenty others. A young man, aged 23, a virgin case, consulted me in 1886 for tubercle of the right epididymis. There was a knot in the upper third of the right prostatic lobe (Fig. 5); no urinary symptoms. In 1889 the epididymis had changed its contour, and I found that the knot in the prostate was feelable in the lower third (Fig. 6). I have noticed that the knots apparently change position; probably the wave passes steadily through the lobe.

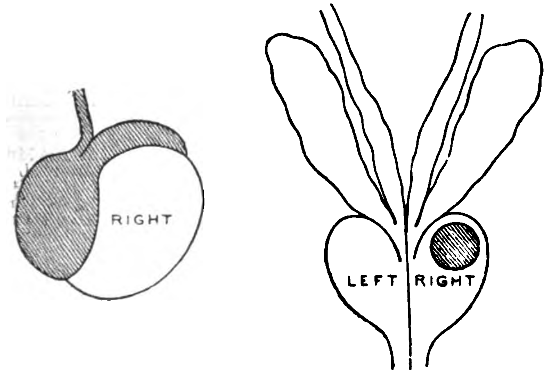

Fig. 5.—Diagrams of right epididymal and right prostatic deposits in November, 1886.

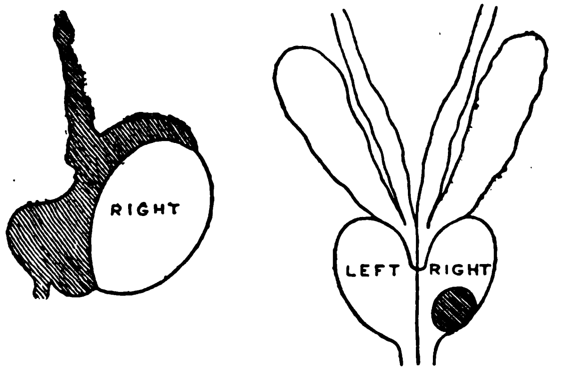

Fig. 6.—The same in November, 1889.

In March, 1890, he had right renal colic and hæmaturia when in Australia. In 1892 the prostatic deposit was minute (Fig. 7).

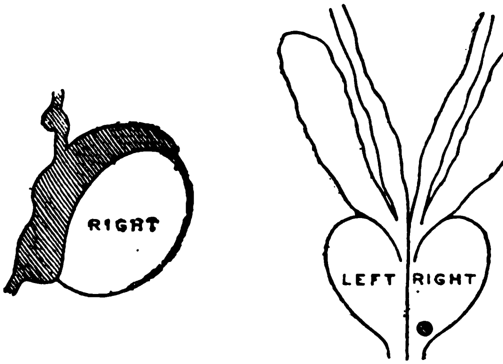

Fig. 7.—The same in 1892.

In October, 1897, the deposit in the prostate was pin-head, but the base of the left vesicle had become involved (Fig. 8), and now bladder symptoms have at last become apparent.

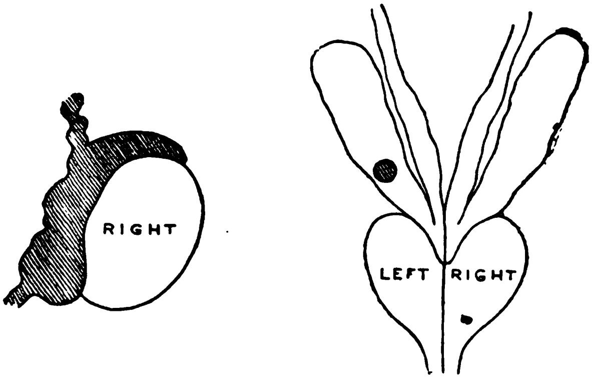

Fig. 8.—The same in October, 1897.

Such deposits rarely, I believe very rarely, suppurate on their own initiative; much depends on how they are treated. But here are two important points. The prostatic contour and consistence are altered greatly by the absorption of deposits; the lobes become flattened, their consistence leathery, and their outlines confused; the sulcus, moreover, often deepens into a trough. Many of them feel like a sheet of thick parchment. Hence it is that we may examine a given prostate and say that there is no tuberculous deposit to be felt in it. But it may have been there, and only practice and observation will enable you to suspect that you are touching a prostate which has been severely invaded. You are often helped to an accurate conclusion by the nodule in the epididymis, which does not become absorbed like that in the prostate.

The second important point is this, and I regret to have to record it. If tubercle has once infiltrated the prostate, it is generally relentless. We may take comfort to ourselves when it has become absorbed, and we may assure our patient that he is cured; but this is not so. Clinical work teaches us that the disease has gone on to invade other areas beyond our finger's reach, spreading along definite tubercle routes, and that it will appear in due course in the bladder or kidneys. The expectation of life, however, can only be calculated after the implication of the mucous membrane.

Before indicating the highways and byways of tuberculous invasion, I must ask you to notice how my statement of the progress of a prostatic deposit explains the textbook differences in the description of its contour. Stress should be laid upon the fact that these differences merely represent stages in the progress or life-history of the deposit. But this is not of much account. What you need to know as practitioners is, What is the form most commonly met with?

The form I have most frequently encountered is that of an irregular knot of the size of a toy marble or a cherry-stone, partially buried in the substance of the lobe, and easily defined; it is dense but not stony hard. I have met with this condition in 62 per cent. of my cases.[5]

Routes taken by Urinary Tubercle.

Urinary tubercle invades the different sections of the urinary tract along certain regular highways. It commences most often in the epididymis (33 cases in 158). It is next found in the corresponding lobe of the prostate, next in the base and around the ureteral orifice of the corresponding side of the bladder; and, lastly, in the middle and lower third of the corresponding kidney near the pelvis. Thus the "rule of the road" is that a right epididymal knot leads to a right prostatic knot, to a loss of surface around the right ureteral orifice; and, finally, to a deposit in the right kidney. An epididymal knot sometimes short-circuits to the kidney of the same side along the lymphatic tract (?) of the spermatic and perirenal veins. No matter whether the deposit absorbs in one place, the wave travels persistently on to implicate another area, and it usually keeps to the side it started on. The advantage of this to the clinician and operator is great. If a patient who has no venereal history, who has never had any difficulty in micturition, and who has never had any urethral instrumentation, complains of pain in one kidney, and you find an indolent knot in the epididymis, or a buried knot in the prostatic lobe of that side, you diagnose tubercle of the kidney, and seek confirmation of this in the urine.

By-paths.

In addition to the main route taken in the above case, there are, of course, two by-paths of invasion. There is one running from the right prostate to the left prostate or left vesicle, and to the left testis, and another passes up along the other ureter to the other kidney if the patient lives long enough.

Let us formulate the rule. Usually the kidney first attacked in ascending tubercle is the one on the same side as that in which the deposit first appeared in the epididymis or prostatic lobe. Supposing the tubercle first starts in the kidney, does it follow the down route on the same side? Usually it does; for instance, right kidney, right ureteral orifice; right prostate, right testis; or the short cut, right kidney to right epididymis.

Cross-route Tubercle.

But this rule of the road is too absolute. It does not, unfortunately, hold in every case. In 18 cases out of 100 the tubercle appeared to cross over, for some unexplained reason. Thus the deposit might be in the left testis and in the right kidney, or in the right testis and left prostate. Remember, then, that in a small proportion of cases (18 per cent.) tubercle crosses.

Practical Comments.

Before you entertain the idea of employing an instrument of any description or of giving any sort of diagnosis in the urinary disease of an adult, you examine the testis, the prostate, and the bladder base *per rectum*. Suppose you detect a tuberculous knot in the prostate. The frequency of micturition, the penile pain at the end of the act, and the intermittent admixture of blood in the urine are all fully explained by your discovery. Control your diagnosis with a bacteriological examination for the bacillus. Lay it down as a hard-and-fast rule never to wash out the bladder under such circumstances, although the presence of pus in the urine may tempt you strongly to do so. Washing out the bladder daily with any form of sterile fluid, be it water, boric acid, or iodoform wash, will relieve in the early stages, but the patient pays dearly for his relief. You cannot fail to introduce septic matter, and the conditions for the colonisation of the microbes you introduce or awake to activity are most favourable: a congested or ulcerated mucous membrane very susceptible to invasion, a neutral or faintly acid urine, and a small amount of residual urine.[6] I say definitely, after fifteen years' study, a patient with a tuberculous bladder, who is washed out as a matter of routine, has his kidney destroyed sooner and more thoroughly than he whose bladder is left alone.[7] Again, you may be so misled by the symptoms as to believe your patient has stone. If you find a tuberculous knot in the epididymis or prostate, do not sound. I will admit that you may not harm the patient, but you will do him no good, and your procedure will cause him unnecessary and intolerable pain.[8] I have had excellent opportunities of examining patients with the electric cystoscope shortly after they have undergone the operation of sounding and of sucking with Bigelow's evacuator for suspected stone. Patches of deep red infiltration (traumatised areas) are seen over the base and sides of such bladders. Theoretically such injuries should favour the spread of tubercle.

Lastly, a certain small proportion of patients suffering from tuberculous prostates complain greatly of difficulty of urination and of narrowness of their stream of urine. This is due to prostatic swelling, but it tempts you to try the urethra for stricture. If you must pass a bougie, let me advise you to use a solid aseptic steel, No. 10 E., with all possible gentleness. My reason for this is, if you employ an elastic bougie in such a case it will probably be abruptly stopped at the opening of the membranous urethra, for the tuberculous deposit in the prostate and bladder warps the deep urethra, and it also induces a veritable spasm of the constrictor urethræ, which the point of the bougie aggravates. Such an obstruction will confirm you in your belief that the case is one of stricture; but the prostatic knot negatives this view.

A Reservation.

I have said that obscure renal pain is sometimes explained by finding a tuberculous knot in the prostate, and that, given such a knot in the epididymis or prostate, and a fixed pain in the kidney, or a renal colic[9] of the same side as the knot, that kidney is tuberculous, if the patient has never strained to urinate, and no instrument has traversed his urethra.

The kidney may not be tuberculous if the patient has strained repeatedly to pass urine, or has had his bladder washed out. If he has strained repeatedly to pass water, one ureter and its renal pelvis may have become slightly distended by backward pressure, and this in itself causes an aching kidney. If washed, mild ascending pyelitis or patchy nephritis of ascending microbic infection may be present without tubercle. Such septic conditions cause aching kidneys.

Notes and References.

[1] Clay and Wax Modelling of the Living Prostate, British Medical Journal, May, 1887.

[2] Electric Illumination of the Bladder and Urethra, 2nd edition, p. 85, British Medical Journal, January 5th, 1889.

[3] There is a great diversity of opinion as to which part of the urinary tract is most often affected by tubercle first. After eliminating most sources of error in my own cases, I believe the tubercle first made its appearance in the following sites: Kidney and ureter, 25 cases=16.8 per cent.; bladder, 56 cases=35 per cent.; prostate and epididymis coincidently, 38 cases=24 per cent.; prostate, 6 cases=3 per cent.; epididymis, 33 cases =21 per cent.

[4] This route, from one lobe to the base of the opposite vesicle, is not uncommon in the most protracted cases of indolent tuberculosis.

[5] The other forms were: Swollen single lobes, 2 per cent.; shotty surfaced prostates, 3 per cent.; enlarged gland at upper angle of lobe, 3 per cent.; massive prostates (the blending of vesiculæ and prostate into an indurated cake), 5 per cent.; early tuberculous vesiculæ seminales, 14 per cent.; absorbed parchment-like prostates, 11 per

cent.; small half-marble deposits in one or both lobes, 62 per cent. [6] All tuberculous bladders after the first year are slightly atonied, and contain a drachm or more of irritating puriform urine. [7] I may remind the reader that there are single ulcers of a non-tuberculous character that are benefited by washing or curettage, but these are only really diagnosable by the cystoscope. Author: British Medical Journal. The Clinical Significance of the Simple Solitary Ulcer, British Medical Journal, May 6th, 1896. [8] There is no urethra so hypersensitive or so intolerant of instrumentation as the tuberculous prostatic urethra. [9] The pain is fixed in the kidney in 80 per cent. of kidneys affected, and the pain is a true renal colic in 20 per cent. of kidneys affected by tubercle. The difference depends not so much on the thickening of the ureters as on the blockage of this narrowed channel by slough or mucus or phosphatic *débris*.

ON THE ETIOLOGY OF CANCER, WITH A NOTE OF SOME EXPERIMENTS.

By GEORGE THOMAS BEATSON, B.A.Cantab., M.D.Edin.
Surgeon to the Glasgow Cancer Hospital; and Senior Assistant Surgeon, Glasgow Western Infirmary.

In May of 1896 I brought before the Medico-Chirurgical Society of Edinburgh some cases of inoperable carcinoma of the mamma, which, for reasons fully given at the time, I had treated by removal of the uterine appendages combined with the administration of thyroid extract. Those who saw the cases were satisfied that the progress of the carcinoma had been affected in a way that was contrary to the general experience of that disease. Since then the procedure I advocated has been put to the test by others, and their published cases go to confirm that the course of carcinoma in the mamma is materially affected by oöphorectomy and the administration of thyroid extract. Such a condition of matters is important from a therapeutic point of view, but it is equally clear that such cases have a special interest, as bearing on the etiology of carcinoma.

When I read my paper in May, 1896, the explanation that I ventured to put forward in reference to my cases was that in the process of development and specialisation of the ordinary cells of the body, these cells do not lose the reproductive or proliferating power which in the early days of embryonic life they undoubtedly possess, but that it is kept in check by the control of the healthy ovaries. Should this control be in any way interfered with by changes in the ovaries leading to altered secretion on their part, or possibly to the migration of ovarian cells, then any part of the body affected by the irritation of this pathological secretion or by the presence in it of a migrated ovarian cell, might resume that early reproductive power that was merely in abeyance, and thus come to display that proliferating power which is not only characteristic of germinal epithelium, but is also the distinguishing feature of carcinoma.

At first sight this might seem to be a return to the old theory of spermatic influence as explanatory of the origin of carcinoma; but it really is not so, and it is important that this should be clearly understood. The theory of spermatic influence as enunciated by the older writers assumed a conversion of the normal tissue of the part affected into tumour tissue; in other words, that there occurs what is known as metaplasia, or a transformation of the cells and intercellular substance of a tissue into cells of a different kind. This it is now generally admitted does not occur, and the only metaplasia of epithelial cells that we meet with is the occasional transformation of one form of epithelium into another, just as is seen in papilloma of the bladder, where the usual transitional epithelium of the mucous membrane is replaced by stratified columnar epithelium.

I do not think that in carcinoma we have any conversion of the cells of the part affected into cancer cells. My opinion is that the distinguishing cells of a cancer tumour are not the normal epithelial cells of the part converted into malignant ones. These latter differ so entirely from normal epithelium in their shape, size, mode of growth, and power not only of penetrating into neighbouring tissues but also of destroying them, that I cannot altogether bring myself to accept this explanation. Further, the transition stage of normal epithelial cells into cancer cells has never been clearly demonstrated. I can show sections where the cancer cells may be seen in active growth and the adjacent epithelium taking no active part in the process and even disappearing, a condition of things which would not present itself if normal epithelium became converted into cancer tissue.

This being so, what is the origin of the cancer cells? I am inclined to think that we must apply to our primary carcinoma what we see happen in the case of a secondary metastatic deposit. When this latter occurrence takes place, everyone admits that the resulting tumour is composed of cells which are the progeny of the original cells or cells which hived off from the primary growth and took up their abode elsewhere. There has been in this case no conversion of the surrounding cells into cancer cells. In the same way, I believe that primary cancer has its starting point in a special cell or cells of the part affected, and the cells that go to make up an epithelioma of the lip are not the normal epithelial cells of the part changed into malignant ones, but they are the offspring of one or more epithelial cells that have gone wrong, and have taken on the indefinite proliferating power that is the characteristic of carcinoma. That it is a cell of the part affected that begins the pathological process is rendered clear by the fact that in secondary tumours we have a repetition and imitation, often in minute detail, of the primary growth. This was very well exemplified in a case of carcinoma of the rectum that I had last year under my care. Previous to my seeing him, the lower portion of the rectum had been excised. After a time this was followed by a reappearance of the disease, and when I first saw the case there was protruding from the anal region to the extent of 2 or 3 inches a mass of what seemed merely granulation tissue. When a portion of this was examined microscopically, not only did it show cancer cells, but these were so arranged that they had taken on completely the structure of the part even to the extent of displaying the follicles of Lieberkühn in a modified form.

It may very reasonably be asked, Are there in different parts of the body and in the various organs any special cells that may be affected in the manner suggested? I am unaware that we have any positive proof of such, but Cohnheim's theory of embryonic remnants has undoubted support from the phenomena exhibited by some kinds of tumours; while Goodsir's nutritive centres with their special cells are possibly less problematical than we think. Then, if Ribbert's theory of growth liberation with its separated groups of cells, all ready to proliferate under certain conditions, be correct, we have another possible source of such cells.

Granting, however, that my surmise is a correct one, and that through any or even all of the above channels initial cells are available for the commencement of a carcinoma, what is the influence that first calls into activity the cell proliferation, so that these primary cells divide and subdivide, and eventually produce a countless host of descendants? The correct answer to this question would give the clue to the real etiology of carcinoma, and all we can do at present is to investigate every line of thought that offers a solution of the matter.

It may be that the theory of traumatic causation is the correct one, or that in the parasitic or infective theory we have the true exciting cause, but as yet certainly this has not been proved. No doubt trauma and long-continued irritation with its accompanying chronic inflammation are powerful factors, and even adjuvants, in this disease, but they do not seem to furnish the special fructifying influence that leads to the generation of true cancer cells. Working on the view that I have already enunciated in this paper, as suggested by what was seen in the behaviour of cancerous tissue under oöphorectomy, I thought it was possible we might have in the germinal epithelium of the body—that is, in the ovaries and testicles, healthy or diseased, the true exciting cause of carcinoma. Accordingly I performed some experiments in this direction, the results of which I wish briefly to record.

My first experiment consisted in placing in the subcutaneous tissue of the dorsal region of a rabbit a portion of the right testicle of the same animal. This was done on July 3rd of last year, and four months afterwards the animal was killed. Examined after death, only a faint induration could be felt at the site of the implanted tissue. The area was excised and sections cut. Microscopically it consisted mainly of fibrous tissue, cicatricial in character, with very few cell elements. At one part only there was a very limited area of small-celled infiltration, the cells being lymphoid in character. No actual remains of the implanted tissue could be found, and in other respects the animal was healthy.

The second experiment consisted in placing in the subcutaneous tissue of the back of a rabbit a portion of an ovary from a case of malignant disease of the uterus for which oöphorectomy had been performed. The experiment was carried out on July 12th, 1897, and on February 8th, seven months afterwards, the animal was killed, and the parts examined. There was no trace of the operation except a slight scar in the skin, which was freely movable, and no nodule could be discovered in the subcutaneous tissue. The portion of tissue inserted had entirely disappeared, and the animal was otherwise healthy.

In my third experiment a portion of a scirrhous tumour of the breast of a female patient was put into the left testicle of the rabbit on which I had done my first experiment of transplanting a portion of its right testicle into the subcutaneous tissue of its back. I was unfortunately compelled to use this rabbit, as we had had two deaths from the anæsthetic that morning and I had no other rabbit available. This second experiment was done on September 2nd, 1897. On October 5th the left testicle appeared if anything smaller than normal and of natural softness. On November 4th the rabbit was killed. Examination of the left testicle showed it to be atrophied. Under the microscope sections of it showed a few pigmented cells, often large, with one or more small, well-marked nuclei lying between bundles of fibrous tissue outside the body of the organ. The presence of these pigmented cells was the outstanding feature in the sections, for they were foreign to the structure of the testicle, and in appearance bore some resemblance to the large cells seen in mammary cysts.

On October 8th, 1897, the experiment was tried of placing a portion of a malignant epithelioma of the cervix uteri in the left testicle of a healthy rabbit. Four months afterwards (on February 8th, 1898) the rabbit was killed and examined. The testicle was found atrophied, and no trace of any new growth could be detected macroscopically or microscopically.

The next experiment consisted in placing a piece of carcinomatous tissue from the human cervix uteri into the left ovary of a rabbit. This was done on October 8th, 1897, and four months afterwards, on February 8th, 1898, the animal was killed. No growth was detected, and the ovary seemed as if had not been interfered with in any way.

The sixth and last experiment was a combination one. A portion of the left testicle of a rabbit was inserted into the left lumbar region of the animal on November 4th, 1897, and on December 7th, 1897, a portion of a recurrent carcinoma of the breast was introduced into the right testicle of the same animal. The rabbit was killed on February 8th, 1898, two months after the last inoculation, when examination of the right testicle showed no growth present, and microscopically nothing could be seen of the cancer cells.

Taken collectively, the result of these experiments is negative, and I find in them nothing to support my view as to the presence or influence of germinal epithelium being in any way the exciting cause of carcinoma. A weak point in my experiments is the fact that the cells of human carcinoma were exployed for inoculation into rabbits, which may not be a suitable nidus for them. It may be possible in future experiments to obviate this source of fallacy.

SUMMARY OF THE EXPERIMENTS.

These were six in number, were performed on rabbits, and comprised the following procedures:

1. Inoculation of healthy testicular tissue into the subcutaneous tissue.
2. Inoculation of portion of human ovary from a cancerous patient into subcutaneous tissue.
3. Inoculation of a portion of cancerous human breast into the testicle.
4. Inoculation of a bit of epithelioma from human cervix uteri into testicle.
5. Inoculation of a bit of same tumour into ovary.
6. A combination experiment, consisting of first the transplantation of a bit of testicle into subcutaneous tissue, and then the inoculation of the testicle of the same rabbit with a bit of cancerous tumour from human breast.

THE annual report of the Regents of the University of New York show that there were 3,582 students in the medical colleges of that State in 1898.

TWO CASES OF COXA VARA, SHOWING THE RESULT OF DIVISION OF THE FEMUR BELOW THE TROCHANTERS.*

BY W. WATSON CHEYNE, M.B., F.R.S.

MY object in bringing these cases here to-night is to show the results which have followed division of the femur below the trochanters and correction of the eversion of the leg. My idea in adopting this measure was to bring the foot and leg into the proper position so as to enable the patient to walk—for my first patient was unable to walk—leaving the region of the hip-joint untouched. At the time that I performed the first operation I considered the possibility of correcting the deformity by removal of a wedge from the neck of the femur; but the child was very young—only 3 years old—and the parts so small that I did not think I should be likely to get the deformity properly corrected, while at the same time it seemed almost impossible to hope to maintain the correction in such a young child.

My first case came under my care at the end of 1892, and was operated on on January 23rd, 1893. It was shown at the Clinical Society on November 24th, 1893. Unfortunately the term "coxa vara" was not introduced till 1894, and I used the term "external rotation of the legs;" hence my case has not come under notice in the history of coxa vara, although, so far as I can find, it was one of the first in which any operation of this kind was performed. Apart from the restored usefulness of the limbs, the most remarkable, and to me most unexpected, result is that, as a consequence of dividing the femur below the trochanters, the progress of the deformity in the neck of the bone has been arrested, as will be immediately pointed out.

CASE I. *Operation Six Years Ago.*—Boy now aged 9, came under my care six years and a-half ago, with a deformity clearly referable to curvature of the neck of the femur, and chiefly characterised by marked eversion of both legs, and greatly diminished inversion; in fact, the feet could hardly be brought round sufficiently to look directly forwards. The trochanters were not above Nélaton's line, the essential deformity being curvature of the necks of the femora backwards.

On January 23rd 1893, the following operation was performed on the right leg (for photographs and a description of the case, see the Clinical Society's *Transactions*, vol. xxvii, p. 297): An incision was made on the outer side of the thigh at the upper part, and the femur, having been exposed and cleared, was divided transversely across by a saw a little below the trochanters. The foot and leg were then forcibly inverted till the normal degree of complete inversion was obtained, and being held in this position while the trochanters were pushed forward, a perforated oblong aluminium plate was placed over the femur opposite the line of division, and nailed on to the two fragments by means of tin tacks which had been nickelled. The object of this was to prevent rotation of the leg outwards during the union. The limb was put up in the inverted position, and the wound healed by first intention. The leg was afterwards put in a fixed apparatus for several weeks. Previously to the operation the boy could neither stand nor walk, but when shown at the Clinical Society in November of the same year he was able to walk quite well, and the left leg, which had not been operated on, was also very useful.

On January 7th, 1896, that is, about three years after the operation, the boy was admitted to Paddington Green Children's Hospital with an abscess at the seat of the former operation. On opening this I found the plate and tacks loose, and they were therefore removed, and the wound healed without any trouble. As his present condition resembles that of the second case, I shall narrate that first.

CASE II. *Operation Two Years Ago.*—Girl, aged 3 years at the time of operation. She had been previously in Paddington Green Children's Hospital for early rickets. At the time of her admission in January, 1897, there were all the signs of coxa vara in both legs. There was marked eversion of both legs, which could not be brought to look quite forwards, diminished abduction, and lordosis; the trochanters were at the level of Nélaton's line. There was anterior curvature of the femora and flat feet. The child walked with a waddling gait, and the knees tended to cross one another.

On January 26th, 1897, more than two years ago, a similar operation to that just described in Case 1 was performed on the left side. The wound healed by first intention and the plate is still *in situ*. The right leg was not touched.

The results are the same in both cases, and are as follows:

1. The object of the operation has in both instances been completely attained; the legs are in perfect position, inversion and eversion of the feet and legs are normal, and the legs are as useful as if there had never been anything the matter with them.
2. The left leg, for which nothing has been done, in each case has improved markedly in usefulness, and the eversion has somewhat diminished, though not to any great extent. In

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* Read at the Clinical Meeting of the Medical Society of London on February 13th, 1899.

them, however, the deformity has continued to progress more especially in the direction of elevation of the trochanters, which are now about half an inch above Nélaton's line, with the result that the left leg is in each case shorter than the one operated on.

3. *The Deformity on the Side Operated on has come to a Standstill in both Cases.*—This is to me quite an unexpected result. Why it should have become arrested on the side operated on while it has progressed on the other is somewhat difficult of explanation. The trochanters on the limbs operated on still remain at the level of Nélaton's line; while, as has been said, on the other side they are half an inch at least higher. Consequently, the legs operated on are longer than the others. Two suggestions appear to me possible:

1. The process of repair and consolidation of the bone around the point of fracture may have extended upwards into the neck of the bone, and led to consolidation and arrest of the softening process, which was leading to the curvature.

2. The branches of the nutrient artery to the neck of the bone were divided in the operation, and, as a result of diminished vascularity, consolidation of the neck may have been hastened.

A CASE OF A TOOTH IMPACTED IN THE LEFT BRONCHUS: GANGRENE OF THE LEFT LUNG: DEATH.

By JAMES S. WARRACK, M.A., M.D.,
Demonstrator of Physiology in the University of Aberdeen.

A woman, aged 26, was admitted to the Victoria Hospital, Burnley, on December 18th, and died on December 30th, 1897. She stated, on admission, that four days previously she was given gas for the purpose of having a tooth extracted. At the critical moment she appears to have taken a deep breath, the result being that the tooth, which must have escaped from the forceps, was inhaled into the air passages. Thereafter extreme cyanosis occurred, and she had a feeling of tightness in the throat, with dyspnœa, and a hard dry cough, aggravated by speaking or change of position. She had also a vague feeling of something being fixed inside the chest, but could not indicate the position. When I saw her she was lying on her back, with livid lips, and coughing in frequent paroxysms, but without expectoration. The coughing was much aggravated by attempts to speak, and by change of posture.

The left side of the chest scarcely moved at all on respiration. There were no breath sounds audible over the left side of the chest, with the exception of tubular breathing at the left apex, accompanied by small moist *râles*, and this was indistinct posteriorly. On the outside of the left nipple there was a small area over which a friction rub was audible. On the left side, from the level of the nipple down to an inch from the umbilicus and backwards as far as the mid-axillary line, there was a well-marked area of hyperæsthesia, which corresponded roughly to the distribution of the sixth, seventh, and eighth dorsal spinal roots. The breath sounds were harsh on the right side but otherwise normal. The pulse and respiration-rates were much quickened.

During the next few days there was little alteration in the patient's condition, but the temperature assumed the hectic type.

On December 27th, thirteen days after the accident, there were well-marked signs of gangrene of the left lung. The breath was offensive, and there was expectoration of a brown and foul-smelling sputum. The lower cervical glands on the left side were enlarged, and there was a well-marked friction rub in the left axilla. Her condition became gradually worse until death occurred on December 30th.

At the necropsy on December 31st, 1897, I explored the trachea up to the larynx, but no foreign body was found there. All over the left pleural cavity there were numerous recent adhesions, and on separating these some grumous fluid came away from the lung. The heart was flabby and rather smaller than usual, and its right side was dilated. On cutting open the left bronchus the missing tooth was found. It was very tightly wedged in the bronchus, its point being downwards and the crown upwards, so that it had apparently acted as a "ball valve." It had almost ulcerated through the left bronchus, which above the situation of the tooth was congested and full of grumous fluid. On following the left bronchus into the lung there was found an irregular passage full of a brown foul-smelling fluid. The whole of the left lung was gangrenous and crepitating, and on squeezing the lung substance there exuded a fluid of the character described. The bronchial glands were enlarged, and there was also an enlarged gland at the root of the neck on the left side. Above the impacted tooth no bronchiole was given off, so that there must have been entire obstruction. The right lung was congested and œdematous, and showed commencing consolidation at the base. There were two cavities in the left lower jaw, and into the hinder one the tooth, which was carious, fitted exactly, its direction being forwards and inwards.

This case seems to illustrate the effects of obstruction to a bronchus, as Dr. Sevestre has recently pointed out in the British Medical Journal, the early stage being collapse of the lung, and the later, inflammation, leading sometimes to the entire disorganisation and gangrene of the lung. The tooth did not appear to have been tightly wedged in at first when the patient was seen, but seemed to have become so owing to the incessant attempts to expel the foreign body, and with each attempt the conditions must have been aggravated by the suction in during inspiration. The gangrene would be excited both by the retention of secretion, and by the introduction of septic material from the tooth.

CASE OF ACUTE TETANUS SUCCESSFULLY TREATED BY ANTITETANIN.

By J. GALLETLY, M.B., C.M.,
Bourne, Lincs.

G. F., a boy, aged 8, was seen by me for the first time at 10 p.m. on September 19th, 1898. He lay on his back in bed with his lower extremities rigid and fully extended, and his head, neck, and shoulders propped up with pillows. The abdomen had a flat, board-like appearance, due to contraction of all the muscles of its anterior wall. The head was somewhat retracted; he could open his mouth widely though slowly, and protrude his tongue. He had little difficulty in swallowing liquids, and could move his arms with considerable freedom. The temperature was normal and the pulse regular, with a rate of 90 beats per minute.

On inquiry, I found that the terminal phalanx of his right middle finger had been crushed in the cogwheel of a winnowing machine on August 28th. The wound had been somewhat roughly dressed, and examination showed that it was not soundly healed, the scar looking red and irritable. From the date of the injury up to September 17th—a period of nineteen days—the boy was apparently in his usual health. On that day it was noticed that he was a little stiff and awkward in his movements. On the 18th, the stiffness became more marked, and he was kept in bed.

On the 19th I was sent for. As the bowels had not acted for three days, a 2-gr. dose of calomel was given, and 10 gr. of bromide of potassium every three hours were ordered. He had a very restless night, and on the following morning more of the muscles were affected, the risus sardonicus was well marked, and the convulsive seizures were occurring with greater frequency and increased severity. Tetanus antitoxin was telegraphed for from the British Institute of Preventive Medicine, and in the evening of the same day (the 20th), chloroform having been administered, 20 c.cm. of the antitoxin were injected under the skin of the abdomen, and the terminal phalanx of the injured finger was amputated. Just before giving the chloroform he was seized every few minutes with attacks of marked opisthotonos. At 9 a.m. on the 21st, 10 c.cm. of antitoxin were injected, and again at 9 p.m. this dose was repeated. So far there was no improvement, the attacks recurring with great severity every few minutes. The tongue was badly bitten several times. He lay with his abdomen and lower extremities wholly uncovered, as the weight of the bedclothes—even of his nightshirt—was painful, and seemed to start a seizure. The next morning the attacks were less frequent, and he had snatches of sleep. A further dose of 10 c.cm. of antitoxin was injected, and this amount was repeated twice a day till September 25th, when, as his condition seemed stationary, it was increased to 15 c.cm. On the 26th I injected 10 c.cm. twice, and this dose was continued twice a day till the 29th, when, as the improvement was becoming unmistakable, 10 c.cm. was given only once a day till October 5th, when it was omitted. Altogether 240 c.cm. of tetanus antitoxin were injected. The boy was sufficiently recovered by October 15th to be downstairs, and when I saw him for the last time on October 31st there was no perceptible stiffness in any of his muscles.

An urticarial eruption appeared on the fourth day of the injections in the neighbourhood of the needle punctures, and spread over most of the body, disappearing about the twelfth day.

The temperature was never much above normal; the pulse was usually somewhat quick; the bowels were obstinately confined, and the fæces very offensive. He was always able to take a fair amount of milk and beef-tea from a spoon. The amputation wound healed by first intention.

Acute traumatic tetanus, of which I take the above to be an example, is so commonly followed by a fatal result that I think this case worthy of record in helping to form an opinion as to the usefulness of antitetanin; for, with the exception of a few doses of bromide of potassium and chloral hydrate during the first two days, and an occasional aperient, no drug was administered.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

A CASE OF GANGRENE OF THE LUNG.

A SHORT note of a case, very similar to the first of the two cases described by Dr. Byrom Bramwell in the BRITISH MEDICAL JOURNAL of January 14th, 1899, will be, perhaps, of some interest.

On May 22nd, 1898, I was called to see a man aged 62. He had all the signs and symptoms of peritonitis. I could discover no cause for his illness. He said the attack came on quite suddenly, and that previously he had been quite well. His bowels had been quite regular; he was not vomiting. He said that he had suffered from chronic dyspepsia for years, but at no time had he had anything acutely wrong with his stomach or bowels. In about a week's time he was quite well, and during that time he had no sickness or any other stomach symptom. I treated him with hypodermic injections of morphine and atropine, hot fomentations, milk, and soda water. During this attack his lungs were absolutely healthy.

On June 2nd he reported himself as being quite well. I examined him on this day, and could detect nothing wrong with his lungs or abdomen except that his stomach was markedly dilated.

He continued quite well until July 11th, when I was called to see him in the evening. He told me that on the morning of July 11th, when jumping on to a tramway car which was in motion he felt a sudden pain a little above the crest of the left ilium, and that immediately after this he began to cough up a large quantity of a very badly-smelling fluid. I found some coarse crepitations at the base of the left lung posteriorly and vesicular breathing, but no dulness. The temperature was 102°, and the pulse 86. He had no abdominal symptoms. He was coughing frequently, and his sputum was very copious and intensely fœtid. He said he had coughed up at least three large breakfastcupfuls of this material since the morning, and that he had no cough till after he felt sudden pain above described. During the next twenty-four hours he coughed up about twice the amount of the same kind of material. Dulness could now be made out; it extended from the base to almost the spine of the scapula. Breath sounds were now bronchial in type, and the crepitations were far more numerous at the base, and some could be detected scattered all over the dull area. The right lung was normal. In a few days the sputum diminished in quantity, and the lung began to clear up a little. Everything was going on well, when one day when turning in bed he had again a severe pain at the same spot as before. He now coughed up a great quantity of the same fœtid sputum, but this time it was tinged with blood. Crepitations were now found to be more numerous at the base than they had been before. A few days after this his motions were well mixed with blood, and about that time he passed by the bowel about an ounce of fluid which had exactly the same smell and appearance as his sputum. His sputum now rapidly diminished in quantity, and the lung cleared up. He is now (January, 1899) apparently quite well, the lung appears absolutely normal, and he has had no recurrence of the abdominal symptoms.

His sputum was examined three days after his lung symptoms began, and had the following characters:

It was a thin, greyish, purulent fluid, extremely fœtid. Microscopically it presented: (1) Pus cells mostly presenting advanced fatty degeneration; (2) epithelial cells, squamous, cylindrical, and round, in considerable numbers; (3) a large amount of fat; (4) mucous shreds and blood pigment. No definite trace of lung tissue; no tubercle bacilli. Streptococci in large numbers, also diplococci pneumoniæ. Starch corpuscles were not seen.

I think there is little doubt that the lung condition arose from something abdominal. I am inclined to think his abdominal condition and his lung condition arose from the same cause, but I am unable to say what the nature of that cause was. His stomach is markedly dilated, probably from chronic dyspepsia; but he says that he has had nothing at any time acutely wrong with his stomach or bowels. The apex beat is displaced several inches to the left. The urine was normal during his illness. I treated his lung condition by inhalations of eucalyptus oil and creosote.

Glasgow. H. ARGYLL ROBERTSON, M.B., C.M.Edin.

A CASE OF INVERSION OF THE UTERUS.

INVERSION of the uterus is so rare that the following case seems worth recording. Only 1 case occurred in 190,000 at the Rotunda. Denham had 1 case in 100,000; C. Braun had no case in 250,000. Crosse in 1847 noted that in 28 per cent. of recorded cases of inversion death occurred in a few hours, that in 42 per cent. death followed later, and that in 7 per cent. the accident led to a fatal result more than a year after its occurrence.

Mrs. R. W., aged 37, is a well-developed woman of average size, who has not suffered from any illness since childhood. Her menstrual history was normal. She had had two previous labours but no miscarriage. Her first labour took place six and a-half years ago, and lasted fifteen hours; a female child presented by the vertex, and was safely delivered with forceps. The second labour occurred four and a-half years ago, and occupied only about an hour, a small female child being born safely before the arrival of the medical man. The third labour began at 1 A.M. on February 21st, 1898. The membranes were ruptured immediately. At 2 A.M. the pains ceased and did not return until noon. They continued strong and regular until 4 P.M., after which they diminished in frequency and intensity.

At 6 P.M. I was sent for, and at 6.45 P.M. found the os uteri fully dilated, the presentation vertex, and the position right occipito-posterior. The pelvic outlet was fairly roomy, and the abdomen was very large. Short weak pains occurred at intervals of about fifteen minutes until 8 P.M. without causing progress. At 9.30 P.M. I returned to the patient with Dr. F. L. Mackenzie, prepared to give an anæsthetic if required, and deliver with forceps. On re-examination it was deemed advisable to apply the forceps without an anæsthetic. This was successfully done, and at 9.45 P.M. a living male child, which was very large, weighing 10 lbs. and measuring 22 inches in length, was delivered "occiput to the back."

The patient now received a draught containing ʒjss of liquid extract of ergot (*B.P.*). Ten minutes later the placenta was expressed with some difficulty. The descent of the placenta was estimated by withdrawing from the vagina as much of the cord as came down easily without pulling on it. Copious bleeding followed the birth of the placenta, and the hand being applied to the abdomen, the uterus could not definitely be made out. The hæmorrhage continuing, a douche of hot water was prepared. The syringe, however, burst immediately, which was fortunate, as it led to the application of other remedies and the discovery of the true condition of things earlier than would have been the case had time been spent in giving the douche. The bleeding partially ceased, only to recommence a few minutes later. The patient had by this time lost about 5 pints of blood, and the pulse was becoming somewhat feeble, so it was decided to plug the uterus, although there were no symptoms of collapse.

On making a vaginal examination, a large quantity of clot and some fragments of membranes were removed. A soft mass was then felt by the fingers, a bag-like protuberance, round whose neck was a hard round ring. The cause of the *post-partum* hæmorrhage was now seen to be total inversion of the uterus. The diagnosis was confirmed by pressing the inverted uterus upwards and forwards, when the os uteri could be distinctly felt by the external hand through the loose abdominal wall. This portion of the uterus was pressed downwards and backwards, while counterpressure was made upon the fundus from the vagina. After the return to the normal condition, the remaining portion of the adherent membranes was scraped away with the fingers. The patient complained of feeling faint and the pulse was very feeble, the loss of blood by this time amounting to nearly 6 pints: ʒj of spirit. ammon. arom. was given, followed later by ℥ss of brandy with water. Bovril, milk, and brandy were given every two hours for the next twelve hours. The patient next morning felt quite comfortable except for the soreness of the womb and abdomen. She made an uninterrupted recovery.

This patient, though she had a bad family history (phthisis), had a good personal and a good obstetric history. The causes predisposing to this inversion of the uterus must therefore be sought in connection with the labour which immediately preceded the accident. The main features of the labour were: (1) It was a dry labour, the rupture of the membranes occurring at the onset of the pains; and (2) the position was occipito-posterior. These two features, together with (3) the large size of the child, amply account for the undue prolongation of the labour, and for the exhausted, flabby condition of the uterus at its close. The immediate cause of the inversion is less easy to discover as traction on the cord was not made. The adhesion of the membranes doubtless had some share in the causation of the accident. The most remarkable feature of the case was the absence of shock and of collapse more than would necessarily attend the loss of so much blood.

Great Broughton, Cockermouth. **John Penny**, M.B.

THE TREATMENT OF OPHTHALMIA TARSI.

Swanzy is correct when he says that this disease is "nothing else than eczema of the lid," and so long ago as 1865 Furneaux Jordan stated the same thing. The disease has nothing whatever to do with scrofula or struma if by such terms is meant that constitutional condition in which resistance to invasion by the tubercle bacillus is reduced. I believe, however, that it is undesirable to divide the disease into blepharitis ulcerosa due to eczema pustulosum, and blepharitis squamosa due to eczema squamosum, for complex differentiation into types may obscure the conception of the pathology of the disease. My observation has convinced me that these varieties are the same disease, and are due to pus infection; indeed, pustular eczema often coexists on the beard, eyebrows, or temporal scalp. The varying conditions of blepharitis met with are due to degree or duration of the disease, and whether pustules are actually visible or not matters little for the diagnosis, for elsewhere on the skin manifestations caused by pyococci are apt to be multiform, and by no means necessarily of the typical pustular form. Hence the division into acne-like type, chronic hypertrophic blepharitis, seborrhœal type, eczematous form, and marginal congestion has, I believe, little or no pathological but only a clinical significance. The severest forms of the disease are really the sequential deformity of scarring within and without the hair follicles due to pus ravages.

With regard to treatment, the object of this note is to emphasise the value of oleate of mercury ointment. This salt appears to be more penetrating than the insoluble oxide generally used, and it certainly acts admirably. I use a 1 per cent. ointment, the diluent being paraffinum molle, and in order to secure intimate mixture the oleate and the paraffin are best melted together. The ointment may then be considered an unirritating, disinfecting, penetrating, soluble salt of mercury. Not only the margins, but the surface of the lids should be anointed, and the treatment should be persevered with at night long after apparent cure. The earliest (hyperæmic) stage of the disease, and the removal of crusts which are often hard and perforated by the lashes, call for hot boric lotion. In all chronic cases of moderate severity—indeed for all cases except the old cicatricial ones—the 1 per cent. oleate of mercury has been found in my hands a most reliable (I was going to write specific) remedy.

Leslie Phillips, M.D.,
Surgeon Birmingham Skin and Urinary Hospital.

SYMPHYSIOTOMY FOR CONTRACTED PELVIS FOLLOWED BY NEARLY NORMAL LABOUR TWO YEARS LATER.

On May 18th, 1896, at 8 a.m., I was called to see a Mohammedan woman, aged apparently between 30 and 40, in her second confinement. She said that her first confinement had taken place some years previously, when after much trouble the civil surgeon was called in and craniotomy performed.

The patient had had severe labour pains since the previous midday; the membranes had ruptured at 4 p.m., and pains had continued severe during the night, but with no effect. The os was found fully dilated, and the head presenting in the second position. The pelvis was contracted, the sacral promontory being readily within reach. The false conjugata measured barely 3¼ inches.

Chloroform having been given and the catheter passed forceps were applied, but several powerful tractions produced no effect. The forceps were therefore removed and symphysiotomy performed by the subcutaneous method. Before the knife had completely cut through the cartilage the joint gave way with a crash. Forceps were reapplied and a good-sized boy delivered. The opening in the skin was at once dressed, and a firm bandage applied to the hips.

Owing to illness I was unable to see the patient for five days, when I found a sinus freely discharging pus at the seat of entrance of the knife. Shortly after she had a slight attack of "whiteleg" on the left side, but a month after the confinement was fairly well except for neuralgic (?) pains in the right leg.

She was seen again about five months later, when she still complained of pain and slight difficulty in walking. There was considerable atrophy of the right leg. The thigh was 1½ inch less in circumference.

On July 19th, 1898, at noon, I was again called to the patient. She had been in labour since the previous evening, and the membranes had ruptured, but it was uncertain when. Pains were severe, and the os was found to be fully dilated, the head presenting in the right position, no progress having been made. After an hour forceps were applied, and the patient easily delivered of a girl. As far as could be judged, this child's head was about the same size as the previous child's at the time of birth.

The patient stated that for the last year she had been perfectly well, and had had no pain, no weakness, or difficulty in walking. The sinus was perfectly healed, and the two legs of equal size.

The case is interesting as showing a permanent improvement in the size of the pelvis after the operation of symphysiotomy. I was also struck by the ease of the operation (only a knife and a catheter were used), making it eminently suitable for small, dark, and dirty houses, where no skilled assistance can be had.

M. Ida Balfour, L.R.C.P.E.,
Medical Officer in Charge of Women's Hospital, Nahan, India.

DILATATION OF STOMACH.

I was consulted some time ago by a young man who complained of much gastric pain and uneasiness dating from an attack of influenza. He was very thin, but said it was not due to want of food, as he was eating four meals a day. He was very much distressed about himself, and blamed that for his thin condition.

I examined his abdomen, and diagnosed a dilated stomach from the fact that on palpation splashing could be elicited at any time in the twenty-four hours, except before breakfast, after the long fast from his dinner the night before. A consulting physician verified my diagnosis.

The patient refused to take much care of his diet, as he said his appetite was excessive, and strict dieting would make him more miserable than he was. I recommended him, therefore, three meals a day, with five hours' interval between them. To this he agreed, and stuck faithfully to the arrangement. He was living in the country, working in a lawyer's office, but was not hard worked.

When I saw him first he weighed 10 stone, and in two months' time he weighed nearly 12 stone, and then, although his gastric pain still troubled him, he told me life was quite a pleasure to him. He said that from the time he knew what was the matter with him, and that there was hope of his getting better, he began to put on flesh. Constipation had troubled him greatly, but after a few weeks' course of treatment for that his bowels became regular.

I taught him to use the stomach tube, and for six weeks he washed out his stomach every second night, half an hour before his last meal. He was surprised, and so was I, at the amount of food still present in the stomach so long after a meal. Gradually he checked his excessive appetite, and the last time I saw him he was down to 11 stone, and feeling and looking very well. He told me on his first visit that his digestion never had been good, but only after influenza did the discomfort become so great as to make him seek medical advice.

Probably his stomach has been dilated all his life, and certainly it has not diminished in size.

Bedford. CHAS. J. HILL AITKEN, M.B., C.M.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

CUMBERLAND INFIRMARY, CARLISLE.

CASE OF COMPLETE PROLAPSUS OF UTERUS IN A GIRL 16 YEARS OF AGE: OPERATION: CŒLIO-HYSTEROPEXY: RECOVERY.

(By J. D. DUNCAN, M.B., C.M.Edin., late House-Surgeon.)

THE following case was admitted to the hospital under the care of Dr. Lediard, by whose permission it is published:

Condition on Admission.—M. E., domestic servant, aged 16 years, was admitted on September 27th, 1897, for "a bearing down of the forebody," as the patient termed it. It appeared from the history of the case that the condition had existed for ten months, and was gradually getting worse. Inability to retain her urine compelled her to give up her employment, and seek advice. She had never been pregnant. On examination there was complete prolapse of the uterus, with vesical diverticulum. This was produced when the patient assumed the erect posture, or when she subjected herself to the slightest strain. The whole uterus, body, and cervix, along with the vesical wall, projected beyond the vulvar orifice; the abdominal parietes were extremely lax. The nulliparous os was slightly eroded, and somewhat enlarged. The whole mass could be easily returned, and nothing was then seen but a relaxed outlet and a cystocele of moderate size. On returning the protuberance some urine was expressed, indicating that there was a certain amount of residual urine in the bladder diverticulum. There was no rectal diverticulum, and no rectal trouble was experienced by the patient. The posterior vaginal wall was also prolapsed.

Cause.—With regard to the origin of the trouble, the information at hand was of a negative character. She had done a considerable amount of heavy work as a general servant, but nothing out of the ordinary. There was no history of a fall or sudden strain; the condition came on gradually, and progressed slowly. There was no congenital defect in the pelvic floor or vaginal outlet.

Operation.—On October 11th, 1897, the abdomen was opened by a mesial incision, the uterus being pushed up from below by the assistant. The anterior wall of the body of the uterus was stitched to the abdominal wall by means of three fishing-gut sutures. The peritoneum was not rawed at any place. The sutures went through the whole thickness of the abdominal wall, and through the peritoneum covering the front of the uterus. The abdominal wall was closed by means of interrupted silk sutures in three layers. The vagina was packed with iodoform gauze.

Progress of Case.—The patient, although somewhat collapsed after the operation, rallied in an hour or so. In the evening the temperature rose to 100.5°, but fell to normal on the following morning, and remained so throughout the course of the case. There was no bad symptom after the first day of operation. The vaginal gauze plugging was left *in situ* for seven days, when it was removed and replaced by fresh plugging, and changed every two days subsequently. The skin sutures were removed on the tenth day. The deep sutures were kept in as long as possible, but at the end of the third week it was evident that they were cutting through, and they were removed. The patient was discharged from hospital wearing one of Macintosh's cup stem pessaries on December 21st, that is, seventy-one days after the operation. During her residence in hospital she was kept in bed, absolutely at rest, and was not allowed to strain in the slightest. Two months after the operation she was examined, and the uterus was then apparently firmly adherent to the abdominal wall. As she still complained of occasional incontinence of urine she was kept in hospital for four days. During this time the pessary was removed and the incontinence ceased. She was then discharged, and advised to wear the instrument during the day removing it at night. She was examined a month later. The uterus was found still firmly fixed to the abdominal wall, and the incontinence had disappeared. Ten months later she appeared for examination. There was no recurrence of the prolapse, and no incontinence or discomfort of any kind. She was advised to dispense with the pessary.

REMARKS BY MR. DUNCAN.—The points of interest in this case to which I would especially direct attention are threefold: (1) The age of the patient; (2) the fact that she was nulliparous; (3) the grounds upon which the operation of ventral fixation was specially selected. (1) The extreme youth of the patient (she was only 16 years of age) is peculiarly worthy of note. So far as I have been able to ascertain from the literature at my disposal, the case under consideration is unique in point of age. (2) The patient was a nullipara, as previously stated. There was no congenital defect in the arrangements of the pelvic organs, while the strain of pregnancy had never been brought to bear upon the pelvic floor. Now Kelly, of Baltimore, points out in his *Operative Gynecology* that pregnancy is a very important factor in the causation of prolapse. In 35 of his cases there was but one who had had no pregnancy, and in that case the prolapse was only partial. (3) As to the reasons which prompted the operative procedures of ventral fixation. The principal operations usually undertaken for fixing in a normal position an abnormally situated, retroverted, or prolapsed uterus are three in number. Two extraperitoneal, namely, Alexander's operation and vaginal fixation; one intraperitoneal, namely, cœliohysteropexy or ventral fixation. Alexander's operation has fallen to a certain extent into disuse, partly owing to the difficulties sometimes experienced in finding the round ligaments and partly because the results of the operation have frequently been unsatisfactory and disappointing. Although the Alexander operation has a fair share of popularity in America and France, it does not hold such a high position in England. In Hart and Barbour's *Gynæcology* a footnote is published, stating that in England its value was recently discussed before the British Gynæcological Society in a paper on ventro-suspension of the uterus by Mayo Robson.[1] In the discussion, while Dr. Alexander referred to the large number of successful cases in which he had himself performed the operation, Dr. J. W. Taylor (Birmingham), Dr. William Duncan, and Mr. Mayo Robson gave the preference to ventral fixation. After vaginal fixation abortion and dystocia are extremely likely to occur, so much so that Mackenrodt, who is an authority on this particular procedure, has on those grounds alone abandoned the operation. If at all performed it will become restricted to patients in whom pregnancy is not likely to occur—that is, to those who are near the menopause. In the face of these objections, and influenced by the successful results which has attended the operation of ventral fixation in the hands of other surgeons, the operating surgeon in this instance adopted that method, and so far at least as regards the fixation of the displaced organ the result has completely justified the choice.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

FREDERICK T. GANT, F.R.C.S., Vice-President, in the Chair.

Tuesday, February 14th, 1899.

THE EFFECTS PRODUCED IN THE HUMAN SUBJECT BY THE ADMINISTRATION OF DEFINITE MIXTURES OF NITROUS OXIDE AND AIR AND OF NITROUS OXIDE AND OXYGEN.

DR. F. W. HEWITT read this paper. The investigation was based upon the following carefully-recorded and timed administrations: Pure nitrous oxide, 22 cases; nitrous oxide mixed with different percentages of air, 107 cases; nitrous oxide mixed with different percentages of oxygen, 102 cases; total, 231 cases. In each administration records were made concerning anoxæmic convulsion, cyanosis or other changes of colour, stertor, retching movements, phonation, excitement or reflex movements, after-effects, dreams, duration of inhalation, duration of anæsthesia, quantity of gas or gases inhaled, operation performed, etc. In order to compare cases and groups of cases with one another, and to ascertain to what extent certain symptoms were met with under certain mixtures, arbitrary numerical values were given to the phenomena of the different administrations. By this plan it was found possible to draw up charts and to make numerous interesting comparisons, not only between groups of cases, but between administrations of different mixtures to the same patient on different occasions. The author arrived at the following conclusions: (1) When pure nitrous oxide is administered to the human subject in such a manner that no free oxygen gains admission during the administration, certain phenomena arise, which for our present purposes may be regarded as being either (*a*) phenomena of anæsthesia or (*b*) phenomena of asphyxia. (2) The anæsthetic phenomena of nitrous oxide, although apparently very different from those of ether or chloroform, are in their essential features remarkably similar. (3) The most conspicuous of the asphyxial phenomena of pure nitrous oxide are (*a*) embarrassed and deeply stertorous breathing, (*b*) cyanosis, and (*c*) anoxæmic convulsion. All these may be eliminated without interfering with the anæsthetic effects of the gas by administering with it certain proportions of oxygen, either pure or as atmospheric air. (4) There are other less obvious asphyxial phenomena—such as wide dilatation of the pupils, swelling of the tongue and adjacent structures, and rapid cardiac action—which, like the more important symptoms above referred to, may be prevented or modified by similar means. (5) Under the influence of pure nitrous oxide breathing becomes deeper and quicker than usual. At the end of from fifty-five to sixty seconds its rhythm becomes altered either by (*a*) obstructive stertor, (*b*) anoxæmic convulsion attacking the respiratory muscles, or (*c*) both conditions combined. If the administration be pushed far enough, breathing becomes arrested in one of these ways. Paralytic cessation of breathing is very rare, and when it occurs is dependent quite as much upon cerebral anæmia from defective circulation as upon the presence of unoxygenated blood in the vessels supplying the respiratory centres. (6) The deep and obstructive stertor of pure nitrous oxide narcosis is not met with when employing mixtures containing moderate percentages of air or oxygen. With such mixtures only softly-snoring breathing is produced. When the percentage of air or oxygen is considerable—30 per cent. air or 13 per cent. of oxygen—respiration becomes noiseless and free from all obstruction. (7) The most marked cyanosis is met with when very small percentages of air (3 to 6 per cent.) or oxygen (under 3 per cent.) are administered with nitrous oxide. With pure nitrous oxide cyanosis may not have time, as it were, to become pronounced, for the administration may be cut short by deep stertor. As the percentage of air or oxygen increases cyanosis lessens, till with 30 per cent. of air it is very slight, and with 11 per cent. of oxygen it disappears altogether. (8) Anoxæmic convulsion, like cyanosis, is liable to be greater with small percentages of air or oxygen than with pure nitrous oxide itself, and for the reason just given. But as the percentages of air or oxygen increase the convulsion decreases, till with 30 per cent. of air and 6 per cent. of oxygen respectively it ceases to occur. (9) Reflex and excitement movements are most likely to arise either with pure nitrous oxide, or with nitrous oxide mixed with small percentages of air (3 to 7 per cent.). or with nitrous oxide mixed with considerable percentages of air (20 to 30 per cent.), or oxygen (10 to 20 per cent.). They are least likely to assert themselves with mixtures containing moderate quantities (12 or 16 per cent.) of air, or moderate quantities (3 to 7 per cent.) of oxygen. (10) Phonated sounds are most common when nitrous oxide is administered with large percentages of air (12 to 30 per cent.) or oxygen (20 per cent.). When nitrous oxide is administered pure, or with small percentages of air (3 to 5 per cent.), they are met with to a moderate extent only. Phonation is least likely to arise with nitrous oxide and air mixtures when air is present to the extent of from 6 to 10 per cent., and with nitrous oxide and oxygen mixtures when oxygen is present to the extent of from 3 to 11 per cent. (11) The duration of available anæsthesia after inhalation is found to be longest after the administration of mixtures containing from 3 to 11 per cent. of oxygen, the maximum duration having been attained with 7 per cent. mixtures. With nitrous oxide and air mixtures the resulting anæsthesia is distinctly longer than with pure nitrous oxide, but the results are very uncertain in these cases. The shortest available anæsthesia is recorded with nitrous oxide alone, and with nitrous oxide mixtures containing 30 per cent. of air. (12) In estimating the respective merits of the various mixtures used as anæsthetic agents, the investigation shows that the best results were obtained with mixtures of nitrous oxide and oxygen; the next best with mixtures of nitrous oxide and air; and the worst with nitrous oxide free from air or oxygen. Air is not nearly so suitable as oxygen for eliminating the asphyxial factors of a pure nitrous oxide administration, owing to the large volume of useless nitrogen which must necessarily be inhaled. The nitrous oxide and air cases were, as compared with those of nitrous oxide and oxygen, far more uncertain in their course. (13) There is no one mixture of nitrous oxide with air or with oxygen which will successfully anæsthetise every patient. (14) In order to obtain the best form of anæsthesia, oxygen should be administered with nitrous oxide by means of a regulating apparatus, the percentage of the former gas being progressively increased from 2 per cent. or 3 per cent. at the commencement of the administration to 7, 8, 9, or 10 per cent. according to the circumstances of the case. The longer the administration lasts, the greater may be the percentages of oxygen admitted. (15) The next best results to those obtainable by means of a regulating apparatus for nitrous oxide and oxygen are to be secured by administering certain constant mixtures of these two gases. Mixtures containing 5, 6, or 7 per cent. of oxygen are the best for adult males; and mixtures containing 7, 8, or 9 per cent. are the best for females and children. (16) The next best results to those last mentioned are to be obtained by means of mixtures of nitrous oxide and air, from 14 to 18 per cent. of the latter being advisable in anæsthetising men, and from 18 to 22 per cent. in anæsthetising women and children. (17) Paul Bert, whose valuable researches upon the effects produced by the inhalation of nitrous oxide and oxygen are well known, regarded an increased atmospheric pressure as essential to the production of anæsthesia by means of these gases. It is clear, however, from the foregoing investigation, that deep and satisfactory anæsthesia, unaccompanied by any obvious asphyxial manifestations, may be secured, at ordinary pressures, by mixtures of nitrous oxide and oxygen containing even as much of the latter gas as is present in our atmosphere. (18) The last-mentioned fact would seem at first sight to give a death blow to the asphyxial theory of nitrous oxide anæsthesia—a theory which supposes that this gas produces its anæsthesia by limiting or arresting normal oxidation processes within the central nervous system. But are we justified in assuming that because no obvious asphyxial manifestations make their appearance during the inhalation, no such interference with oxidation is taking place?

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[1] British Gynæcological Journal of May, 1896.

Dr. **John S. Haldane** (Oxford), after complimenting the author of the paper, referred to the subject from the physiological point of view. He said the paper raised the question, What was it that produced anæsthesia in nitrous oxide administration? Was it the want of oxygen or was it some definite specific action of the nitrous oxide gas? He thought that the paper proved that the anæsthesia was due to some specific action of the gas, since there was no lack of oxygen. He referred to some experiments that he had carried out by the administration of pure hydrogen and nitrogen, and the length of time necessary to produce anæsthesia by these gases was about the same, namely, 53 seconds, as that taken by administration of nitrous oxide; the period of anæsthesia following, however, was very much shorter, and he thought the production of anæsthesia might be due partly to the asphyxia produced and partly to the specific effect of the nitrous oxide gas.

Mr. **John Fairbank** said the paper was of great value, not only in showing how to administer nitrous oxide and oxygen together, but also as proving its superiority over nitrous oxide administered alone. The contrast in operating on a patient who had had the mixed gases and those who had had nitrous oxide alone was most marked, the patient under the former lying in a condition resembling sleep, with the tongue occupying a low position in the mouth, while under the latter the movements of the patient were most troublesome, and the tongue was swollen, and was in danger of being caught by the forceps.

Dr. R. L. **Bowles** referred to some experiments which he had performed some years ago on animals by administering pure hydrogen, and it was found that the animals died of convulsions. When, however, a small amount of air was admitted, the animals recovered from the anæsthesia produced. In another series of experiments in which the animals were placed in an atmosphere of oxygen, they died of carbonic acid poisoning due to the failure of elimination, and not to want of oxygen, since it could be proved that the vessel in which the animals were still contained an excess of oxygen. He referred to the phenomenon of stertor, and contrasted the varieties mentioned in the paper: he said that the "paralytic" stertor was relieved by position, whilst the "spasmodic" stertor was not relieved by altering the position of the patient, and sometimes it was necessary to open the trachea.

Mr. **George Rowell** doubted whether the test applied by the author to fix the time of return of consciousness, namely, asking the patient to open the eyes, was reliable, as this seemed to be almost a reflex act, and he thought the time should be fixed by the patient recollecting the request. With regard to the duration of anæsthesia, although dependent chiefly on the length of time of inhalation, it was also dependent on the nature of the respiration when the mask was removed, being considerably longer when the patient was breathing quietly and slowly than when respiration was short and jerky. He disagreed with the author as to the best results obtained by administering nitrous oxide and air, and considered that the more satisfactory results were obtained by giving pure nitrous oxide till the convulsive period, and then giving it interspersed with a few breaths of air; but this did not give such good results as a mixture of nitrous oxide and oxygen.

Mr. H. J. **Paterson** criticised the method adopted for comparing the case. He thought that considerable variations occurred in the same patient at different times under the same anæsthetic, and this was due partly to the nature of the food taken, partly to the want of sleep; he believed that the latter was an important factor, for he had noticed that nurses who were on night duty took gas badly. He thought that the gas should be warmed before administration, and considered it probable that the retching and vomiting which sometimes occurred might be avoided by this means. He thought that the fact that the mixed gases could not be administered for a long time without air, together with the sweating and vomiting which occurred after prolonged administration, pointed to internal asphyxia, although there was no external manifestation of it. He hoped the time was not far distant when this mixture of gases would come into general use for prolonged surgical operations.

Dr. **Hewitt**, in reply, said that he had administered pure nitrogen, and, although he had never used hydrogen for anæsthetic purposes, he hoped at some time to do so. He could not understand how there could be blocking up of the CO_2 in the blood if there was free expiration, and he thought that the experiments of Waller had shown that CO_2 was not so deleterious as was generally thought to be the case; he believed that the nitrous oxide entered into rapid combination with the blood, and thus acted rapidly on the central nervous system.

CLINICAL SOCIETY OF LONDON.

John Langton, F.R.C.S., President, in the Chair.

Friday, February 10th, 1899.

Tuberculous Cavities in the Lungs giving rise to Gaseous Metastatic Abscesses.

Mr. W. G. **Spencer** described an exceptional case in which abscesses formed in the back, in the right pleura, and in the upper part of the left thigh, the latter bursting into the rectum through the great sciatic notch. Meanwhile the disease of the lungs gave rise to practically neither symptoms nor signs. The patient, a West African negro, aged 22, was attended by Dr. Denne for pain in the left knee, headaches and vomiting, which he had had for eight months. A superficial abscess, extending from the left scapula to the lowest rib, was opened, but no communication with the chest found. As the patient still had fever he was admitted to the Westminster Hospital, where a tympanitic swelling was found occupying the upper portion of the left thigh and buttock. On opening this multiloculated abscess, gas and pus with a fæcal odour escaped, and it was found to communicate with the rectum through the great sciatic notch. There was no ulceration of the rectum nor infiltration of the ischio-rectal fossæ. Later the patient suddenly developed an acute effusion into the right pleura. The fluid was aspirated, and had a fæcal odour and contained pus cells; the right pleura was consequently drained. Then followed a period in which the patient declared himself better, the abscesses in the back and the pleural wound nearly closed, and the man insisted upon getting up, and asked repeatedly to be discharged. The septic fever, however, continued, and foul yellow pus was discharged from the thigh in spite of frequent irrigation. All the evidence of chest disease was an occasional cough and a few *râles*. Yet malaria, dysentery, typhoid fever, and fæcal fistula from intestinal ulceration, appeared to be clearly negatived. One day, after being five months under observation, the patient suddenly collapsed and died in four hours. *Post mortem* there was found a tuberculous cavity in the upper part of the right lung, the size of an orange, filled with a gummy purulent fluid, whilst the rest of the right and the left lung contained numerous caseous tubercles, extensive tuberculous caries of the sixth, seventh, and eighth ribs on the left side, and of the eighth and ninth ribs on the right side; the right pleura thickened and adherent; the upper part of the left thigh and buttock completely occupied by multilocular abscess cavities. There was no tuberculous ulceration of the intestines.

Dr. **Kingston Fowler** asked whether tubercle bacilli had been found in the lungs. He was not aware of any cases in which gas and fœtid effusion had occurred in the pleura apart from gangrene or perforation of the lung.

Mr. **Makins** said it was a mixed infection, and suggested that possibly the fœtid abscesses were not directly traceable to the pulmonary lesions.

Dr. J. H. **Bryant** asked if any anaërobic cultures had been made, and recalled the fact that the bacillus aërogenes capsulatus had been demonstrated in connection with gaseous abscesses of the liver and of other organs, and in that rare disease, pneumaturia occurring in diabetes. *Post mortem* he had found gaseous cysts, which had probably formed during life, in liver, spleen, and kidneys, in connection with the bacillus coli communis. He handed round photographs of the liver from that case.

Mr. **Spencer**, in reply, said the bacillus coli was found in the abscesses, all of which evolved gas having a fæcal odour. Probably at first they were tuberculous, and tubercle bacilli were found in the lungs after death. The abscess in the back might have spread from the lung by way of the ribs, but the abscess in the thigh must have been metastatic, by way of the circulation.

Myopathy in a Boy aged 5 years: Necropsy.

Dr. **Thomas Barlow** and Dr. F. E. **Batten** contributed a paper on this case, which was shown at the Clinical Society in November, 1894, and the following account was given: The boy had suffered from weakness of the back and legs since birth; he had never talked clearly, but was considered fairly intelligent; he had never had any severe illness. He was a healthy baby, and nothing was noted to be amiss till the time when he should have begun to walk. No similar affection occurred in any member of the family, except possibly his sister—seen by Dr. Barlow—in whom it was noted that the pectorals and deltoids were small. On admission to the hospital the following note was taken: He was an intelligent-looking boy: his face, eyes, mouth, and tongue presented nothing abnormal. His speech was of the type known as "idioglossia." He sat up in bed and held the back very straight; if placed on his back he was unable to raise himself into the sitting position without turning on to his face. The child was unable to stand, and the legs were flexed at the hip and knee. The muscles were everywhere very weak and thin and had a tough feeling. In the upper limbs all movements seemed capable of being performed. The latissimus dorsi and pectoral muscles were very wasted; the infraspinatus was comparatively good. Both lower limbs were equally wasted: there was no hypertrophy; all movements were capable of being performed, but the legs could not be fully extended. The knee-jerks were present, equal and active. Sensation was normal in all forms, and the electrical examination showed only a diminution to both faradic and galvanic elements. The boy developed an attack of gastro-enteritis and died. At the necropsy was found some defect in the arches of the lower lumbar vertebræ; the spinal cord and brain appeared normal. The pectoral muscles were very poorly developed, the serratus was small, the biceps was fairly developed, but was pale; the rectus abdominis muscle appeared normal. The glutei were converted into a mass of fat, and the rectus femoris was poor and thin. Microscopically no lesion could be found in the brain, medulla, or spinal cord. The anterior horn cells appeared quite normal, except for the deposit of some pigment which did not usually occur in young subjects. The medullated sheath of the root fibres appeared thinned out and not possessed of the regular contour of the normal fibres. In the muscles the following changes were found: Extreme variation in the size of the muscle fibres, some being considerably larger than normal; increase in the interstitial tissue between the fibres; vacuolation in some fibres, and a very considerable deposit of fat between the fibres; a fine granular (? fatty) change was found within certain muscle fibres, rendered apparent by staining in Marchi's fluid. The muscle spindles formed a striking feature in sections of the muscles, and were apparently normal. The sensory nature of these organs was no longer doubted, and it was argued if it could be proved that these organs remained normal while the rest of the muscles underwent atrophy, then it was probable that the primary lesion in this disease lay in that part of the nervous system where the motor and sensory paths were separate. The authors assigned the case to the group known as the Leyden-Möbius, although hereditary history was wanting in the present case. The muscular atrophy corresponded to the late pseudo-hypertrophic type.

The **PRESIDENT** specially commended the elaborate lantern slides and microscopical specimens exhibited by Dr. Batten.

Dr. **BARLOW** said that the merit of the complete and elaborate report and preparations was due to Dr. Batten. He remarked on the clinical features of the case, which he considered remarkable and for a time puzzling. The case seemed intermediate between the cases of myopathy described by Erb and those of pseudo-hypertrophic paralysis described by Duchenne, approximating rather to the latter; and the necropsy confirmed this view. But in November, 1894, there was no true enlargement of any of the muscles, even those most atrophied presenting a noteworthy toughening and a "fibroid feel," especially the flexors of the thigh and the calf muscles, but without enlargement. None of the muscles of the upper limbs were so atrophied as in the advanced cases described by Erb. There was apparently an absence of the hereditary element, though one child had a poor development of the muscles of the upper limb, not, however, amounting to atrophy. He would still keep the brothers and sisters under observation, as they might possibly yet exhibit the symptoms of heredity. The thighs in his patient could not be completely extended, but they could be flexed. As to this symptom, he had shown years ago a case of undoubted pseudo-hypertrophic paralysis in which this symptom was much more marked at one hip than at the other. He thought the cases were instances of developmental pathology, and though no symptoms might be apparent at birth, they became manifested at various stages as growth proceeded. The fact that the laminæ of the lower vertebræ were wanting placed the case amongst those with a potential congenital defect. These patients had a very poor hold of life; this boy, for instance, died quickly of an attack of gastro-enteritis.

Dr. **BEEVOR** thought too much stress had been laid on the hypertrophy; similar cases without hypertrophy had been described. The muscles in this case had some of their fibres hypertrophied without the muscles themselves being visibly hypertrophied; and that condition doubtless existed in other cases also.

Dr. **BERTRAM ABRAHAMS** said that the conditions of the individual muscular fibres resembled the nerve fibres in disseminated sclerosis; for whilst some fibres were hypertrophied others were wasted; and in both cases the hypertrophy was degenerative. In 1894 Babes had described changes in the motor ends of the nerves in pseudo-hypertrophic paralysis. Could the authors confirm these views?

Dr. **SAVILL** asked if the authors had found any change in the nerves of the cauda equina? In studying these cases in the London infirmaries two things had struck him: first, the little difference there was between the different kinds of myopathy described by various observers. Duchenne had originally described all; why were Erb's type and Leyden's type regarded as different? and why should Duchenne's pseudo-hypertrophic paralysis be regarded as different from primitive myopathy? Hypertrophy and atrophy occurred even in the same individual, and hypertrophy might occur in one member of a family and atrophy in another member. It was, indeed a markedly hereditary disease. Secondly, the electrical changes had not been sufficiently studied. Until quite recently it was taught that there were no electrical changes in primitive myopathy. But in this case the K.C.C. was said to be equal to the A.C.C. He had found the same changes in a case he had described. He thought the lower motor neuron was the site of the disease; that, in fact, the mischief was in the cauda equina, and that it was not truly a myopathy after all.

Dr. **BATTEN**, in reply, said he had not examined the motor endings of the nerves in the muscles, nor did he know how to examine them pathologically. He believed the changes in the nerves had taken place in the medullated sheath of the nerve fibres as they left the cord, and not in the nerves in the muscles.

RESULTS OF OPERATIONS FOR ENLARGED PROSTATE.

Mr. J. R. **LUNN** described six cases upon which he had operated in the Marylebone Infirmary since October, 1896, when he read a most successful case of the kind reported by Mr. A. H. W. Hunt. Case I.—The patient, aged 72, had retention and hourly micturition, due to enlarged prostate. The left vas deferens and nerves were divided and tied, without apparent benefit. The right testicle was then removed, and a radical cure for right inguinal hernia performed. The patient's health subsequently improved, but the frequency of micturition continued. The left testicle was excised a year subsequently, when the right lobe of the prostate was found less prominent than the left. Seven months subsequently the micturition in twenty-four hours had fallen from 20 or 16 times to 10, a catheter had not to be passed, and there was no retention. In November, 1898, he developed dropsy, and died in December, sixteen months after the third operation. Case II, aged 63. Micturition about every half-hour. Catheterism often necessary; urine offensive and alkaline. Section of the right vas deferens at once reduced the frequency of micturition. Three months later he again had retention, was admitted to the infirmary, and improved, but had frequent micturition at night. A month subsequently, when the left vas deferens and nerves were tied, the prostate had not apparently altered much in size, though it felt soft. A month later the micturition was reduced to four or six times in the twenty-four hours, and there was no micturition during the whole night. He went out perfectly well, the urine having become normal. Case III.—This man, aged 63, had double tuberculous testes with discharging sinuses, and an enlarged prostate. Five months after double castration the prostate was quite shrunken. He had since remained quite well, and had no frequency of micturition. Case IV.—A man, aged 66, had retention of urine and cystitis due to stricture and enlarged prostate. Temperature 102.4°. The urine contained pus and albumen, was alkaline and offensive. The bladder was drained suprapubically, the urethral stricture divided, and the bladder washed out with lotio boracis; but the bladder symptoms increased and death seemed imminent, when double castration was performed. He improved rapidly, gained a stone in weight, and the urine became neutral. Six and a-half months subsequently he had vomiting and diarrhœa, and coma and death supervened. Case V.—A man, aged 76, had retention of urine, frequent micturition, both by day and night, and catheterism was often required. The prostate was much enlarged. The left vas and nerves were cut and tied under 10 per cent. cocaine injection, but no improvement of micturition ensued. Seven weeks subsequently the right vas was tied under 5 per cent. cocaine injection. Twelve days afterwards the frequency of micturition was much lessened. About five months later cancer of the liver appeared, of which he died. At the *post-mortem* examination both testicles were found atrophied, and he had developed a double hydrocele of the tunica vaginalis. Case vi.—A coachman, aged 64, had retention, for which catheterism was required. The urine was alkaline, contained albumen, and had specific gravity 1005. Double vasectomy under chlorform was performed. A month later he could sleep all night without passing urine, and was discharged well.

The **President** recalled a case which occurred many years before vasectomy or castration was done for this condition. A gentleman, aged 68, had tuberculous disease of the right testicle and enlarged prostate, and the frequency of micturition (twenty times in the night) made his life wretched. Castration was performed. Three or four years afterwards, when he was next seen, the right half of the prostate was much diminished in size. His left testicle was then tuberculous and was removed; and since then the whole prostate had greatly lessened in size, and now at the age of 87 that patient micturated only twice or thrice in a night. One objection to castration was that patients after the operation sometimes became senile in the brain, and died of "old brain." He had seen such cases.

Mr. **Spencer** said that some of Mr. Lunn's patients had died of "surgical kidney," which the operation had not averted. Double vasectomy or castration did not enable surgeons to dispense with the other measures for cystitis, such as catheterism, suprapubic drainage, washing out, etc. The senile degeneration already mentioned and the eunuchoid condition that occasionally occurred made one hesitate to advise the operation.

The **President** objected to the term "surgical kidney"; that condition was not the outcome of proper surgery, but of the want of it.

Mr. **Lunn**, in reply, said that some of his patients had become fat, but none had developed the mental troubles to which reference had been made.

MEDICAL SOCIETY OF LONDON.

Edmund Owen, F.R.C.S., President, in the Chair.

Monday, February 13th, 1899.

Clinical Evening.

Coxa Vara after Operation.

Mr. Watson Cheyne showed two cases of coxa vara after operation. The paper is published at p. 400.

Mr. **Jackson Clarke** said he had four similar cases. In three, aged respectively 2, 2, and 3 years, as rickets was still in active progress he devised instruments to keep the foot looking forward and to take the weight off the hip. These patients had greatly improved and no operation was now necessary. In the fourth case he had seen the patient at a period anterior to the existence of a deformity, the symptoms being those of early tuberculous coxitis. In that case by extension, etc., the symptoms subsided and no deformity had resulted.

Mr. **Cheyne**, in reply, said he had not been able to devise any splints that would be likely to effect the object he had in view. While he thought this was the best method of dealing with young subjects, the alternative operation of removing a wedge of bone from the neck of the femur might be preferable in adults.

Cerebellar Abscess: Operation: Recovery.

Dr. **Maguire** showed a man, now 29 years of age, seen in March, 1896, with symptoms pointing to cerebellar abscess following on a discharge from the right ear. He was unconscious after having had convulsive movements of the left side. The head was turned to the right, the left arm and leg were flaccid, and the mouth was slightly drawn to the right, the right pupil being larger than the left. Temperature 101°. A few hours later he developed distinct weakness of the right arm and leg. He was trephined behind the right ear, and on cutting through about a quarter of an inch of cerebellar substance an abscess was reached and 2 ounces of pus evacuated. The patient recovered consciousness next day and made a perfect recovery.

Dr. **StClair Thomson** asked why the mastoid process was not opened and whether the piece of bone was replaced.

Dr. **Maguire**, in reply, said they had thought it best to go straight to the abscess. The bone was not, he believed, replaced.

So-Called Pharyngo-Mycosis Leptothricia.

Dr. **StClair Thomson** showed a man, aged 38, who presented on the lingual and faucial tonsils the characteristic appearances of what was generally described as pharyngo-mycosis leptothricia. The crypts were occupied by small isolated tough firmly-adherent white excrescences which had not coalesced, the mucous membrane between them, being apparently healthy. He pointed out that this affection was more common in adults and in females. It recurred rapidly after removal and if left untreated it generally disappeared, but might last for five or eight years. He questioned the etiological value of the presence of spores and mycelium of the fungus, adding that attempts at inoculation had failed. Siebenmann had proposed the term "hyperkeratosis lacunaris" for this condition. Local antiseptics had failed to improve matters, and he relied upon local surgical measures.

Mr. **Watson Cheyne** suggested removal of the tonsils.

Dr. **F. de H. Hall** said he had obtained excellent results in several cases by the application of a 15 per cent. alcoholic solution of salicylic acid, and deprecated resort to surgical measures, except in cases that had resisted the salicylic treatment.

Graves's Disease in a Male.

Dr. **Hector Mackenzie** showed a stationmaster, aged 32, suffering from typical Graves's disease. In this country the estimated proportion of male subjects of the disease to female was as 1 to 20. He called attention to the occasional presence in the urine of these patients of a substance which was not glucose, but reduced Fehling's solution. A prominent symptom in this case was cutaneous itching, which he recalled was often complained of during the course of treatment of myxœdema by thyroid preparations.

Mr. **Watson Cheyne** had operated on a number of these cases with considerable improvement in respect of one or other of the symptoms, though the exophthalmos in no case disappeared. He did not admit that the proportion of cases in women and men was as different as stated by the author.

Dr. **Maguire** had employed tincture of cactus grandiflora in those and other cases with marked palpitation with uniformly satisfactory results. No diminution, however, had ever taken place in the projection of the eyes.

Dr. **Morison** pointed out that many of these cases improved in time without treatment of any kind. He suggested that the hypersecretion on the part of the thyroid was probably only a prominent symptom of an essentially nervous disturbance.

Dr. **Hadley** said that if the history of these patients was followed up one generally found that after the lapse of years the more prominent symptoms had subsided, especially the palpitation. Some patients drifted into lunatic asylums, and others died. Of 3 cases, one died of granular kidney and one of endocarditis.

Dr. **Mackenzie**, in reply, said several of his cases had been operated upon, but he could not say that their subsequent condition was better than that of others not so treated. He pointed out that the mortality of the operation itself was about 12 per cent. Though perfect recovery was rare, he had seen many cases in which the symptoms had improved to a very great extent. He recalled one case in which death took place from acute diarrhœa, but the danger of a fatal termination was most marked during the first eighteen months, comparatively few dying during the later stages. The mental element was often very difficult to combat.

A Large Thoracic Aneurysm.

Dr. **Mackenzie** also showed a man with an enormous thoracic aneurysm. He first came under observation two years ago complaining of pain in front of chest and through lung on left side, there being then no visible aneurysmal swelling, but there was dulness and pulsation in the second right intercostal space. Three months later he returned with a swelling so pronounced as to be visible without undressing. It reached from the clavicle above to the upper border of the fifth rib below. This large tumour had given rise to very insignificant symptoms, and the patient did not feel ill enough to enter the hospital.

Dr. **Hall** referred to a case of his own in whom he was trying the treatment suggested by Lancereaux in a recent number of the *Semaine Médicale*, of injections of gelatinised serum, and he promised to give the result at some future time.

Dr. MAGUIRE, in view of the want of success of any method of treatment, thought it was better to encourage these patients to work on until the end. By placing the patient on his back perforation of the œsophagus was favoured.

SUBCORACOID DISLOCATION OF HEAD OF HUMERUS WITH FRACTURE OF GREAT TUBEROSITY.

Mr. WARREN LOW showed a man aged 51, who, after a heavy fall down stairs, developed swelling of, and pain in, the left shoulder. The head of the bone was absent from its normal position, and could be felt below and to inner side of the coracoid process, and several unsuccessful attempts were made to reduce the dislocation. During one of these attempts crepitus was felt, and a diagnosis was made of fracture of the surgical neck of the humerus with dislocation of the head. A fortnight later, as the arm was quite useless, Mr. Owen cut down on to the head of the bone, using the ordinary anterior incision. He found a subcoracoid dislocation of the head of the humerus; the great tuberosity had been completely torn from the humerus and comminuted, and a part of the glenoid fossa had been broken off. There was no fracture of the surgical neck. As even with the head of the bone exposed it was impossible to restore it to its normal position, Mr. Owen removed the head by sawing through the surgical neck. The patient made an uneventful recovery, and he left the hospital with some slight movement between the humerus and scapula.

Mr. JACKSON CLARKE referred to a similar case of his own in which as reduction was found to be impossible, and as there was much œdema of the arm, he cut down without opening the capsule, and forced the head back into position. A fortnight later, however, it came out again, and though it could be returned the œdema remained. He ultimately excised the head of the bone, but even then the œdema persisted, and he had at last to amputate the limb. Looking back on that case, he thought that if in the first instance he had opened up the joint and made an exact diagnosis, he might have wired the tuberosity to the humerus as it was not comminuted. The joint movements after excision were usually very restricted, and if reunion of the tuberosity could be obtained it was to be preferred.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF MEDICINE.

J. W. MOORE, M.D., P.R.C.P.I., President, in the Chair.

Friday January 27th, 1899.

ERB'S JUVENILE FORM OF MUSCULAR ATROPHY.

DR. LANGFORD SYMES exhibited a case of juvenile muscular atrophy. The patient was a boy, aged 8½ years. He was brought for advice for his "inability to walk properly," and had been ailing since he was 2 years old. It began when he was learning to walk; if he fell he could not get up alone; he was now getting more helpless, could not walk up stairs, and was unable to get in or out of bed. The chief symptoms were: (1) rather imbecile, foolish expression and lack of intelligence; (2) knee-jerks completely gone; (3) lordosis on standing, and sometimes lateral curvature from muscular weakness; (4) he cannot lie down or get up off the floor without falling (totally unable to get up); (5) extreme wasting of deltoids, pectorals, intercostals, trapezius, latissimus dorsi, and lip muscles; (6) some slight hypertrophy of the calves and portions of the deltoids; (7) walks with a "waddling" high action gait, with lordosis and a wide base; (8) high arched palate; (9) mouth affected, cannot whistle (orbicularis). The diseases resembled were (1) Erb's juvenile form of muscular atrophy; (2) pseudo-hypertrophic muscular paralysis in an atrophic stage; (3) facio-scapulo-humeral type of muscular atrophy (Landouzy and Déjerine). The distinguishing features were the shoulder girdle being badly affected; being a family disease (his mother's brother was similarly paralysed at 7 years of age and died at 16 years, never having walked); sensation normal; no general enlargement of the muscles, and the mouth being affected.

THE CLINICAL FEATURES OF BERI-BERI.

Dr. CONOLLY NORMAN read a paper in which he analysed the symptoms of beri-beri. Heart troubles were the most serious. An invariable condition was tachycardia, with extreme irritability of the pulse. Unconformability of heart and pulse was frequent and striking. Variable murmurs most commonly heard in the pulmonary area were not infrequent, also reduplication of the first or second sound. The heart was frequently dilated, and this dilatation, chiefly affecting the right side, often came on with singular rapidity. Death from heart involvement was common, sometimes occurring quite suddenly, and in apparent convalescence, sometimes after a prolonged agony. The sensory symptoms, always occurring primarily in the lower extremities, and sometimes confined to the legs, consisted of various degrees of superficial anæsthesia and hypæsthesia combined usually with paræsthesia and hyperæsthesia (painful anæsthesia). Deep (muscular) tenderness and tenderness of the nerve trunks coexisted with loss, diminution, or alteration of superficial sensation. Spontaneous pain (aching and cramps in muscles, painful formication in skin) were common. Œdema was probably always present, though sometimes very slight and transitory. It varied in character, being usually less marked than in ordinary anasarca, and sometimes approaching closely to the "solid œdema" of the myxœdematous state. It might be slight, fugacious, and confined to the pretibial region, or it might spread all over the body. Cases which were highly œdematous constituted the so-called "wet form" of beri-beri. Effusions into the joints were rare, but common in the serous cavities, especially in pleura and pericardium. In the latter situation they often accelerated death, which might also be brought about or hastened by œdema of the lungs. The motor symptoms were paralysis of various muscles or groups of muscles. The muscles first attacked were usually those supplied by the peroneal nerve. The gait in well-marked cases was characteristically neuritic. The greater engagement and less resistance of the extensors gave the shifting equilibrium in standing, the dropped and inverted foot, the high action in walking. The paralysis rarely involved the upper extremities. The muscles of respiration not rarely suffered, particularly the diaphragm, a fact which constituted one of the dangers of the disease. The muscles engaged tended to waste rapidly. When this wasting occurred after œdema had been slight and transient, the "dry" or "atrophic" form of the disease was produced, but the wasting might coincide with extensive anasarca, becoming manifest only when the latter was abated. The author desired to point out the importance of recognising the affection, which would certainly appear to be spreading and enlarging its habitat. Since 1894, when it first appeared in the Richmond Asylum, epidemics had been reported from two asylums in the United States, a few cases strongly recalling beri-beri had been reported from German asylums, and an epidemic which attacked 150 patients, of whom about 40 died, had occurred in the autumn of 1897 in an asylum in the South of France. Dr. Norman exhibited a number of photographs of beri-beri patients from the Richmond Asylum epidemics, showing the dropsical and the atrophic forms of the disease, showing also the peculiar dropping and inversion of the feet, and demonstrating the peculiar relaxation of the joints which occurred in this disease. For purposes of comparison, he exhibited some photographs of cases of alcoholic neuritis and tabes dorsalis.

Dr. SMITH said that when the diagnosis of the cases in the Richmond Asylum was first hinted at, it was scoffed at and ridiculed by some, and it was not till Dr. Patrick Manson—who was specially invited over for the purpose—Sir Thornley Stoker, and himself had prepared a report on the matter that all doubt was set at rest. He considered that the diagnosis of beri-beri was easy only when it occurred in places where the disease might be expected or when one was already familiar with it. Quite lately two Norwegian sailors, who came from Florida, were admitted to Sir Patrick Dun's Hospital. The main symptoms which they presented were a curious combination of motor, sensory, and trophic conditions, which he thought would be hard to fit in with any other diagnosis than that of beri-beri. They would have been labelled probably as either cases of alcoholic neuritis, or perhaps some more high-sounding name, if the disease had not already been known in Dublin. It was a singular fact that on removing patients in the earlier stages of this disease to new surroundings they were likely to recover—a thing that would not happen in the case of other infective diseases. There was no use in removing a typhus fever patient to a place where there were no other cases of the same disease, though such a procedure was of benefit to the beri-beri patient. On account of this fact Dr. Manson supported the theory that it was due to a peculiar poison which was distilled, so to speak, from the soil, the building, and the surroundings in which the patient lived, and by removing them from these surroundings they removed the cause. He thought that the most interesting point in the morbid anatomy and clinical history of the disease was the remarkable and serious interference with the neuro-muscular apparatus of the heart. The only other disease offering a pathological parallel to this was diphtheria, for in that disease, as in beri-beri, the heart was often heavily hit, and an interesting comparison might be drawn between the cardiac symptoms of these two diseases.

Dr. Littledale, Surgeon-General Potter, Dr. Dawson, Mr. Croly, Dr. Knott, and Dr. Martley also joined in the discussion.

Dr. Norman, in reply, said that Manson's opinion that the poison of the disease lurked about the soil of buildings seemed to be supported by appearances. Several writers on the subject had pointed out the seeming liability there was to an outbreak of beri-beri where the soil had been recently turned over, and this led them to think that it was a miasmatic disease. Some even had gone so far as to say that it was malaria. In answer to questions, he said that he had not found the spleen or liver enlarged in his cases. He had not noticed any change in the hair or nails. He remembered one case in which the teeth had all fallen out, but he did not think this was due to beri-beri. One patient had exhibited a series of herpetic patches, which turned into bullæ, and left little ulcers after them. There were three or four cases ushered in by a curious eruption not distinguishable by him from erythema nodosum. He could not enlighten Mr. Croly as to why beri-beri should occur chiefly in asylums in this climate, and amongst the epileptics in those institutions. He was disappointed in the use of electricity in this affection, more so since some writers on this subject had said that it was possible to diagnose beri-beri by means of the electrical reactions before other symptoms occurred. They had not found changes of any consequence in the spinal cord, which was disappointing, as other observers had stated that the cells in the anterior cornua were frequently found to be degenerated.

ULSTER MEDICAL SOCIETY.

Joseph Nelson, M.D., President, in the Chair.

Wednesday, February 8th, 1899.

Cases.

Dr. J. R. Davison showed a case of Erythema Migrans Linguæ.—Dr. Lindsay showed two cases of Cardiac Disease presenting some unusual features.

Microscopic Specimens.

Dr. Tennant showed some microscopic preparations illustrative of the pathology of pneumonia.

The Prevention of Tuberculosis.

Dr. Howard Sinclair moved a resolution approving of the objects of the National Association for the Prevention of Consumption and other forms of Tuberculosis, and recommending the members of the Ulster Medical Society to attend the town meeting to be summoned by the Lord Mayor.

Dr. Lindsay seconded the resolution, which was carried unanimously.

Pneumonia.

Professor Whitla opened a discussion on this subject from the point of view of pathology. He discussed the objections to Laennec's view that pneumonia was an inflammation of the lung, to which the constitutional symptoms were secondary. He insisted that the disease was a specific fever, and that the lung changes were the local manifestations of the general blood condition. He quoted statistics showing the frequency with which different micro-organisms were found in the lung and sputum, and held that the diplococcus of Fraenkel was the cause of the disease in the majority of cases. The causative relations of the streptococcus pyogenes and the bacillus of Friedlaender were discussed and accepted as the explanation of other forms of pneumonia. Dr. Whitla believed that these different microbes produced different forms of the disease, and that these forms could be diagnosed at the bedside by the ordinary auscultatory methods. Influenzal pneumonia was due to the streptococcus pyogenes, and was a mixed infection. Its physical signs were peculiar, their polymorphic character being remarkable. This form of pneumonia was highly contagious, and very apt to attack anyone in close proximity to the patient, though those actually suffering from influenza were most susceptible. He had witnessed many cases where a patient suffering from influenzal pneumonia had infected those about him not with influenza but with the streptococcus form of pneumonia. Fraenkel's diplococcus produced the ordinary honest pneumonia with its characteristic lobar hepatisation. He thought Dr. J. W. Moore's idea that the so-called erysipelas of the lung was identical with the influenzal or streptococcic pneumonia was correct.

Dr. Lindsay dealt with the subject from the point of view of diagnosis and treatment. In exceptional cases difficulties in diagnosis arose because (1) the symptoms might precede the physical signs by two, three, or even four days. One theory of these cases was that the pneumonia was centric and only became manifest when it had made its way to the surface of the lung. It was more probable that the blood infection might actually precede by a considerable interval the pulmonary manifestations. (2) In rare cases the disease might be practically non-febrile. He had recently seen a well-marked case of right basic pneumonia in which the thermometer did not begin to rise until eight or ten hours before death. There was an alcoholic history, the symptoms were asthenic, and the patient died on the third day. (3) The invasion might simulate typhoid fever. The term "typhoid pneumonia" should be discarded. The significance of certain symptoms was alluded to. The speaker's statistics showed that the mortality was less in cases with a maximum temperature of 103° to 104° than with lower temperatures. A low temperature in pneumonia often meant imperfect reaction, alcoholism, or age, and was hence unfavourable. Albumen in the urine had no significance. The absence of all sputum was not unfavourable and hæmoptysis seldom need give rise to anxiety. "Prune juice" expectoration was of evil augury. Intense dyspnœa was usually serious, but he had recently seen recovery in a man, aged 59, in whom the respirations were at one time 70 per minute. Diurnal delirium was grave. A delay in the crisis past the tenth or twelfth day might point to empyema, pericarditis, or abscess of the lung. Delay in resolution need not usually excite alarm. Apical pneumonia was not specially dangerous. There were usually no sequelæ. Phthisis never followed croupous pneumonia. He had known general bronchitis develop during convalescence and prove fatal. There was no routine treatment of pneumonia worthy of attention. Each case should be individualised, and attention given to the quarter where danger threatened. Cardiac failure was the chief source of danger, and should be guarded against by complete rest, suitable nourishment, alcohol, strychnine, and inhalations of oxygen. Ammonia was sometimes useful, and digitalis was worthy of a trial. Antipyresis was seldom required in any active form, but cold sponging and the use of the icebag were useful. His early trials of oxygen had been unfavourable, but he had recently seen decided benefit from it.

Surgeon-Lieutenant-Colonel Moorhead supported the view of the specific nature of pneumonia. He pointed out that the pneumococcus sometimes attacked the cerebral and the spinal meninges, and that in some cases the meninges were the only seat of the disease. He cited 5 fatal cases he had had in India where both meninges and lungs were attacked, and 6 other cases where the meninges alone were involved.

Dr. McCaw said that in patients under the third year probably 75 per cent. of cases were of the broncho-pneumonic variety, which was probably due to the lungs in early life containing more interstitial tissue, and the air cells being smaller and occupying less relative space. The epithelial lining of the small bronchi and alveoli was relatively larger. These structures responded readily to slight irritation, hence giving a catarrhal character to the resulting inflammation. After the third year the affection assumed more of the croupous type. The broncho-pneumonic form might either be primary or might follow measles, pertussis, diphtheria, or scarlet fever. Crackling *râles* heard over the dull areas, with bronchial breathing, and increased vocal or cry resonance were usually sufficient for a diagnosis. Typical croupous pneumonia might be present in one lung, and typical catarrhal pneumonia in the other—often causing errors in diagnosis. He agreed with Dr. West (1) That primary and secondary broncho-pneumonia had a different bacteriological origin; (2) that secondary broncho-pneumonia was for the most part due to streptococcus infection derived from the air passages, throat, or mouth; (3) that primary broncho-pneumonia was of pneumococcal origin; (4) that pneumococcal inflammation produced massive and lobar consolidation in the adult, and disseminated or patchy inflammation in the child. Good nursing was most important in treatment. The free use of steaming and tenting was undesirable. Spongio-piline was preferable to poultices. Calomel was useful. Diaphoretics, expectorants, digitalis, emetics, strychnine, and leeching might be employed according to circumstances.

Dr. **MCKISACK** quoted statistics from the records of the Royal Hospital illustrative of various points in the diagnosis and prognosis of pneumonia. The unfavourable prognostic significance of low temperatures come out in these tables. He had met with no single instance of recurrence of the disease, which was remarkable, as all authorities represented recurrence as somewhat common.

Professor **BYERS** related some cases out of his experience, and demurred to the theory of multiple infection. He thought the contagiousness of influenzal pneumonia really meant that influenza was contagious, and not its complications.

The discussion was adjourned.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

EDWIN LEE, M.R.C.S., President, in the Chair.

Friday, February 3rd, 1899.

OCULAR PHENOMENA ASSOCIATED WITH CHEYNE-STOKES BREATHING.

MR. **WHITEHEAD** first mentioned conjugate deviation of the eyes, nystagmus, strabismus, and periodic fluctuations in the size of the pupils. Some cases of nystagmus and pupil movements similar to those observed in association with Cheyne-Stokes breathing were described as occurring without any alteration in the rhythm of respiration. Two cases of meningitis, in which periodic contraction and obliteration of the pupils took place without Cheyne-Stokes breathing being present, were then mentioned. The possibility of Cheyne-Stokes respiration being only one of a series of rhythmic disturbances of the nuclear centres, occurring in certain pathological states, was alluded to, and it was suggested that the loss of control exercised normally by the higher centres was the main factor in the production of the Cheyne-Stokes state.

Drs. **BARRS, CHURTON**, and **TREVELYAN** took part in the discussion.

THE SPREAD OF TYPHOID FEVER.

Dr. **SPOTTISWOODE CAMERON**, dealing with the causes of the spread of typhoid, said that although a few held that the pathogenic germ was probably a variant of some innocent organism, at present the evidence for that theory was insufficient. Sudden outbursts, like that of Maidstone, were generally associated with the water supply; but was it not possible that in some cases a more diluted poison selecting the more susceptible individuals might be responsible for some of the increased autumnal prevalences of the disease? It had been noticed in milk outbreaks that members of a family taking only a few teaspoonfuls of milk to discolour their tea escaped infection, whilst those taking larger quantities and raw succumbed. Might not similarly the amount taken, along with the susceptibility of the individual, be the determining factors of attack in cases of slightly polluted water? Water obtained by impounding natural streams was more or less polluted. It was impossible altogether to ignore the possibilities of aërial convection. In a case he had recently published in the *Surveyor* he had shown how in a public institution the only common food of those attacked was milk, that the sources of the milk supply were pure, and that the infection of the milk must have occurred in the keeping cellar which communicated with the drain. The milk could only have been infected by the passage of the poison through the air. Dr. Cameron advocated: (1) The thorough inspection of the sources of water supply, and he thought it advisable that water authorities should themselves own their gathering grounds; (2) the protection of the soil around dwellings and upon which new houses were to be built from contamination; (3) the cremation of the typhoid bacillus as it left the person of the patient; and (4) to secure this, early notification by the practitioner even of doubtful cases. He feared much that was called disinfection consisted in destroying the competitive bacilli, and leaving Eberth's in full possession of the field.

Dr. **EVANS** (Bradford) pointed out that the term "aërial convection" as used by Dr. Cameron in reference to the spread of typhoid fever was quite as reasonable as when applied to diffusion of small-pox. The poisons of the two diseases were recognised as being microbic, and could therefore be conveyed in the same manner. Nevertheless, it must be admitted that the distance through which the germs of typhoid fever might spread would be much less than the distance covered by the particulate infection of small-pox. He also pointed out, in reference to typhoid fever being conveyed by water, that the value of chemical analysis was not so great as members of sanitary bodies appeared to think, and maintained that such analysis was frequently misleading. Although chemical analysis might frequently indicate danger, it could never be relied upon to show that any particular sample of water was free from the specific infection of waterborne diseases.

Dr. **BARRS** and Mr. **A. E. PEARSON** both thought that if nurses contracted the disease this was due to an imperfect disinfection of the hands. Surgeon-Major **ROBINSON**, Dr. **CHEETHAM**, Dr. **JOHNSTONE**, Dr. **CHURTON**, Dr. **GRIFFITH**, and the **PRESIDENT** also joined in the discussion.

LIGATURE OF THE COMMON CAROTID FOR HÆMORRHAGE FROM THE EAR.

Dr. **STEWART** said that on May 18th, 1898, he was called to a child suffering from hæmorrhage from the ear. On arrival he found a little girl, aged 3 years, lying on a sofa almost lifeless. Three weeks before she had got thoroughly wet, and a few days afterwards a lump appeared at the angle of the left jaw, with pain on swallowing. On the fourteenth day from the appearance of the swelling in the neck, the child complained of intense earache, and a few hours afterwards there was a profuse discharge of foul, greenish pus from the left meatus. Forty-eight hours afterwards an attack of hæmorrhage from the ear occurred, followed by another on the same day, and two more on the day following. The bleeding always ended in faintness. Dr. Stewart saw the child on the third day from commencement of the hæmorrhage, when she had another attack. He packed the external meatus with gauze, and bandaged the head up tightly, but, as the bleeding recurred during the night, the mother consented to an operation. The left common carotid was tied. The child was quite well within a week. The blood was distinctly venous in character. The only change noticeable after the operation, and which still persisted, was a flushing of the right side of the face, with profuse sweating on exertion, as compared with pallor on the left side, on which carotid was ligatured.

Drs. **TEMPEST ANDERSON**, Mr. **BROWN**, Dr. **GRIFFITH**, and Mr. **WHITEHEAD** discussed the paper.

SPECIMENS.

Cases and specimens were shown by Dr. **JENKINS**, Mr. **SIMS**, Dr. **BRAITHWAITE**, Mr. **WARD**, Dr. **GRIFFITH**, Mr. **CROFT**, Mr. **THOMPSON**, Dr. **BARRS**, Mr. **LITTLEWOOD**, Dr. **SHARP**, Mr. **LAWFORD KNAGGS**, Dr. **HELLIER**, and Dr. **TREVELYAN**.

PATHOLOGICAL SOCIETY OF MANCHESTER.

R. B. WILD, M.D., President, in the Chair.

Wednesday, February 8th, 1899.

THE DIPHTHERIA BACILLUS.

Dr. **TREVELYAN** (Leeds) read a paper based on the examination of suspected exudation in the laboratory of the Leeds Medical School. He thought that the aggregation of the protoplasm in certain parts of the microbe was more characteristic than any arrangements of the micro-organisms in regard to each other. The short bacillus had comparatively rarely been found in these examinations, but mixed forms were often present. Occasionally anomalous forms in the shape of long and short clubs had been obtained, but this no doubt depended largely on the culture medium used. Branching forms had not been seen, cultivation on egg albumen usually yielding the long form. Neisser's method of staining required manipulation, and perhaps the help to be obtained from it in doubtful specimens, especially of the short bacillus, was hardly so great as was at first expected. The serum media were of much value in the cultivation because the diphtheria bacillus outgrew other microbes, at least within the first twenty-four hours, but the cultivation could be continued on other media equally well. The growth obtained on antitoxic serum was sparse. Grown on alkaline, litmus, lactose, agar, typical forms did not always produce acid. This acid production, especially in glucose media, could not be of great value in the rapid diagnosis. The characters of the diphtheria colony were discussed, and illustrated by drawings and impression and other specimens. The colony was frequently thicker in the centre, but sometimes also round its margin—the slightly irregular margin—its somewhat dry aspect and loose attachment to the medium were important characteristics, but it was not always possible to recognise it with certainty. Finally, Dr. Trevelyan expressed the opinion that the bacteriological examination was of great importance to the clinician in a not inconsiderable number of cases, yet if the full value was to be obtained, the results must be promptly communicated. Thus in the large majority of cases it was possible to report by telephone or other means within twenty-four hours of receiving the specimen.

Diverticulum of the Bladder.

Mr. Wright and Mr. Coates described an unusual case of diverticulum of the bladder, not due to obstruction, details of which it is intended to publish later.

Malignant Renal Growth.

Professor Jones and Dr. Kelynack showed preparations of a sarcoma of the left kidney which had been successfully removed by lumbar nephrectomy from a man, aged 50. The chief symptoms had been hæmaturia and pain. The growth consisted of a very vascular myxo-sarcoma involving almost the whole of one end of the organ.

LIVERPOOL MEDICAL INSTITUTION.

W. Macfie Campbell, M.D., President, in the Chair.

Thursday, February 9th, 1899.

House-Surgeons and the Workmen's Compensation Act.

The report of a Committee to the effect

> That house-surgeons to hospitals should be allowed to charge fees for reports under the Workmen's Compensation Act, and that such fee should be one guinea to insurance companies and employers of labour,

was adopted.

Tuberculosis.

Dr. T. R. Bradshaw proposed, and Dr. Hope seconded, the adoption of a Committee's report on Tuberculosis in the Human Subject. The report suggested (*a*) diffusion of information to the public respecting tuberculosis; (*b*) the arrest of tuberculosis by diminishing the sources of infection; (*c*) the provision of sanatoria and special hospital accommodation; and (*d*) voluntary notification of infected houses and disinfection of the same by the health authorities.

After discussion, in which the President, Drs. Gill, Imlach, Permewan, Glynn, E. T. Davies, Bushby, and Mr. Rushton Parker took part, the report was adopted.

Cases.

Mr. Thelwall Thomas exhibited a patient from whom he had removed an Epithelioma of the Larynx by Thyrotomy.—Mr. T. H. Bickerton exhibited a patient, aged 51, on whom he had performed the "grattage" operation for Trachoma of the Right Eyelids. The disease was of long standing (two years and a-half), and owing to the "pannus" condition of the corneæ he could only count fingers, and for twenty-one months had been unable to follow his employment. The cornea was now clear; vision $\frac{6}{18}$ and Ja. 8. Dr. Alexander thought that in most obstinate cases the roller operation was better than grattage. Dr. Richard Williams spoke in favour of roller and jequirity. Mr. Rushton rker spoke.

Idiopathic Dilatation of Stomach.

Dr. T. R. Glynn read a paper on the symptoms and treatment of idiopathic dilatation of the stomach. He pointed out that no single symptom or group of symptoms could be considered pathognomonic. He disposed of many of the direct stomach symptoms in a few words, remarking that in some instances there was evidence that the dilatation originated in hyperchlorhydria. He mentioned cases in illustration. Vomiting was more particularly discussed, its absence in many cases noted. Gastric crises and constipation were next dealt with. Diarrhœa as a crisis of purging was a chronic affection, mucus being noted in the evacuations in many cases; as general symptoms, the flabby abdominal wall with tendency to rupture and displacement of the right kidney. He did not accept Bouchard's view that the nervous symptoms were toxæmic, but regarded the depressed nervous system as the origin of the dilatation and of the nervous trouble. The disease was frequently met with in young men between 18 and 30 years of age. Cyclical albuminuria was met with. He considered that the affection was found almost invariably in the neurotic, in those with a neurotic family and personal history, and in those who presented the marks of degeneration. Treatment should be directed to the nervous system, general rather than local. He advised caution in the use of the stomach tube, mentioning two cases in which washing out the stomach had become a habit, one patient having continued to wash the stomach out for fifteen years, the other for nine years.

Mr. Rushton Parker said exploration had not infrequently to be undertaken in cases where the diagnosis was doubtful. In one case he had operated on a case of dilated stomach where there was a history of gastric ulcer and probable cicatricial obstruction. Simple idiopathic dilatation was found and the abdomen closed. The patient was immediately relieved from symptoms and had remained free four months later.[1] Operation in such cases had occurred often enough to convince surgeons of its utility in abdominal ptosis. It was of course not recommended as a deliberate treatment for recognised idiopathic dilatation.

Dr. Archer had met with a considerable number of cases in a minor degree in young men and women, and he believed that irregularity of meals and insufficient exercise were conducive to it. He was of opinion that a general distension of the intestines often accompanied the affection. He had found mineral acids and nux vomica of service.

Dr. Imlach alluded to the striking contrast in modern views as to surgical interference. In cancer of the pylorus surgical results would not bear telling. In pyloric obstruction from simple ulceration and thickening the results were far better than generally recognised. He regarded psychological surgery by operative interference in cases of idiopathic dilatation as quite unjustifiable. Of course there must always be a margin for mistake in diagnosis.

Drs. Gill, Grünbaum, and Davies, and Mr. Paul spoke.

British Gynæcological Society.—At a meeting on February 9th, Dr. Macnaughton Jones, President, in the chair, Dr. Bantock showed two specimens of Fibroid Tumour of the Uterus, the first removed by panhysterectomy, and the second by the *serrenœud.*—Dr. Snow showed (1) a Myoma removed by abdominal hysterectomy; he had adopted a new plan of dissecting off a thin layer of uterine tissue with the flaps, instead of making them of peritoneum only; (2) a Small Myoma removed *per vaginam.*—Mr. Mayo Robson (Leeds) read a paper on Complete Removal of Fœtus and Sac in a case of advanced Extrauterine Pregnancy. He confined his remarks to the narration of a case, and the discussion of the treatment of advanced extrauterine pregnancy, with special reference to the mode of dealing with the sac. Operation in this case was undertaken two months after full term, the fœtal movements having ceased at term. After incising the sac and removing the fœtus, he found that it would be possible to remove the entire sac; so he ligatured off the ovarian vessels externally, and made a pedicle between the sac and the uterus. After separating the anterior layer of the mesosigmoid, which was expanded over the sac, the tumour could be shelled out from its bed. The patient made a good recovery. He quoted a passage from a recent textbook to show that removal of the entire sac was not worth considering after the fourth month. Mr. Taylor, in his Ingleby Lectures, described the removal of the sac in intraligamentous pregnancy as unnecessary and dangerous. Kelly, on the other hand, advocated the removal of the sac whenever it was possible. He suggested the following general rules: When the fœtus was found among the intestines, and had been removed, if the placenta was attached to the expanded tube it could probably be removed, but if spread over the intestines or large vessel it was safer to leave it, and pack the placental area with gauze. If the fœtus was enclosed in a sac, then after extraction of the former the sac should be examined to see if its removal was possible. The preliminary securing of the uterine and ovarian arteries would facilitate the subsequent procedures.—Dr. Macpherson Lawrie (Weymouth) read notes of a case of Ectopic Gestation, which he recorded as a possible instance of ovarian pregnancy. The President elicited from Dr. Lawrie that there was no critical proof that it was a case of ovarian gestation, nor was it shown that any corpora lutea were present in the tissue examined. Mr. Bland Sutton emphasised the distinction to be drawn between the cases where the pregnancy was abdominal when the sac was formed only by fœtal membranes, and those in which it was intraligamentous, when the tissue of the broad ligament entered into the formation of the sac. The former were rare; he had seen only one out of 16 cases of advanced ectopic pregnancy. In these cases the sac could be removed without difficulty, but when intraligamentous the removal of the sac was a formidable matter, and should not be attempted. Dr. Bantock concurred in Mr. Sutton's views. Dr. William Walter (Manchester) pointed out the great difference there was in operating on advanced cases of ectopic pregnancy after the fœtus was dead. To remove the sac was not then attended by the same danger as when the fœtus was still living. Remarks were made by Dr. F. Edge (Wolverhampton), Dr. Arthur Giles, the President; and Mr. Sutton and Mr. Mayo Robson briefly replied.

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[1] British Medical Journal, 1898, vol. i, p. 438.

British Laryngological, Rhinological, and Otological Association.—At a meeting on January 27th, Dr. J. Middlemass Hunt, in the chair, Mr. Lennox Browne showed a man, aged 68, with Laryngeal Epithelioma of at least two and a-half years' duration which had not been submitted to operation. Owing to the age of the patient no attempt had been made at eradication. The patient was in good health, and was able to take a fair amount of exercise. Dr. Macintyre (Glasgow) said the case did not seem to present the characters to be expected in an epithelioma of two and a-half years' duration. Remarks were made by Dr. Vinrace and the President; and Mr. Lennox Browne replied.—Mr. Bark (Liverpool) read notes, and exhibited a drawing of a case of Cyst of the Laryngeal Ventricle in a woman aged 66.—Dr. Stoker read a paper on the Curative Treatment of Laryngeal Phthisis: a Suggestion. Starting with the belief that laryngeal phthisis was due to the presence of micro-organisms or the toxins they produced, the suggestion consisted in the local application of the toxins after they had been oxidised, that was, that a culture should be taken from the affected part, and an oxidised toxin made and applied frequently.—Dr. R. H. Woods (Dublin) showed a specimen and microscopical section of Cancer of Right Vocal Cord removed by Thyrotomy from a man aged 74. The patient was able to leave hospital on the tenth day.—Mr. Wyatt Wingrave exhibited microscopic preparations illustrating Cholesteatomatous Changes associated with Chronic Suppuration of the Middle Ear.—Dr. Barclay Baron, in opening a discussion on the Value of General Treatment in Diseases of the Throat, Nose, and Ear, reviewed the treatment of tuberculosis, and more especially phthisis laryngea during the last few years. He pointed out how, twenty-five years ago, tuberculous patients were practically excluded from the air, kept in close rooms, and when they were sent away, the places selected were Ventnor, Penzance, or Torquay. Then came the era of high altitudes, starting with Davos, which was distinctly more satisfactory, though where the throat was affected the profession should avoid sending their patients to high altitudes. He considered the open-air treatment, as practised in Germany, together with the taking of large quantities of fat food, extremely satisfactory. Mr. Wyatt Wingrave, with regard to the nose and nasopharynx, emphasised the importance of regarding many forms of polypi as the symptoms rather than the disease itself. He referred to the necessity of a thorough appreciation of the physiological co-relation between the nose and other organs. Dr. R. H. Woods had observed that the tendency to suppurative otitis media, after measles and scarlatina, was greatly augmented by an ill-nourished and cachetic condition of the patient. He had found that cases of suppurative otitis media healed more quickly when, in addition to local antiseptic treatment, tonic internal remedies, especially iron, were given. After remarks by Mr. Lennox Browne and Dr. Macnaughton Jones, Dr. Dundas Grant drew attention to the satisfactory results obtained in some cases of nerve deafness by treating the anæmia and constipation which frequently coexisted. The President referred to errors frequently made in neurotic affections by paying too much attention to local treatment, such as the cautery, etc., when in reality general measures were chiefly indicated.

Association of Registered Medical Women.—At a meeting on February 7th, Mrs. Stanley Boyd, M.D., Vice-President, in the chair, Miss Walker-Dunbar, M.D. (Clifton), read a short paper on Callosities on the Hands and Feet not due to Pressure. She maintained that under certain conditions which depressed the nervous system, such as debility after influenza, thickening of the epidermis in places where pressure as a cause could be entirely excluded might occur. She also described a case of unusual Dislocation of the Head of the Fibula, illustrated by diagrams.—Mrs. Scharlieb, M.D., M.S., read a paper giving an account of two cases of Puerperal Septicæmia.—Miss K. M. Hunter, L.S.A., D.P.H.Camb., read a paper on Isolation *versus* Inoculation. She pointed out that in the presence of an overwhelming epidemic, such as was unknown here to-day, but had lately raged in India, isolation must completely fail in England. In India, where the plan had been extensively used, labour and food were cheap, and the latter required little cooking; temporary hospitals could be used, and houses were so simple and possessions so few that disinfection was easy and inexpensive. In spite of all this, and combined with a splendid organisation, the plan of isolation had failed. From one plague-infected city alone 150,000 persons fled, many of whom died on the roads and spread infection over the country. The reasons given why a still more complete failure might be looked for in England were: (1) The impossibility of dealing with large numbers of people for such a purpose; (2) paucity of hospital accommodation; (3) enormous expense of administration and food; (4) difficulties of thorough disinfection of houses and their contents; (5) impossibility of using in this climate cheap temporary hospitals, such as in India were quite satisfactory; (6) facility and cheapness of travelling, which rendered it impossible to prevent infected persons from wandering from place to place.

Society of Medical Officers of Health.—At a meeting on February 10th, Dr. E. Gwynn (President) in the chair, Dr. F. J. Allan read a paper on Diphtheria, especially in regard to the Duration of Infection and the use of Antitoxin as a Prophylactic. He said private practitioners ought to be able to have the faucial secretions of convalescent patients examined by public expert officers, with a view to determining when the bacilli had disappeared, or, if present, had entirely lost their virulence, so that the child might be allowed to associate safely with others. The prophylactic use of antitoxin had not as yet made much way in this country, but in Germany and in America it was carried out extensively and with the greatest success. With the highly concentrated serums now in the market, the prophylactic dose of 100 to 300 units was very small in volume, and the curative doses of 500 to 1,000 far from bulky.—Dr. Symons said that in Bath whenever a case was notified he offered to immunise the family, with the consent of the medical attendant. Antitoxin treatment was most successfully carried out in their hospital.—Mr. Milsom believed that there was more diphtheria in his district of Newington than in any other part of London, though 95 per cent. of the cases were removed to hospital.—Dr. Wilkinson held that bacteriological examination must precede isolation or the use of antitoxin.—Dr. Goodall was inclined to think that return cases were less frequent than with scarlatina. He isolated adults for four weeks and children for six weeks after the disappearance of membrane. He immunised doubtful cases, but even before the introduction of antitoxin it was rarely that patients sent in through erroneous diagnosis contracted diphtheria. The unpleasant results of injections, now seldom seen, were due not so much to the inferior quality of the antitoxin as to the large volume of the horse's serum, apart from anything else, and were obviated by the high concentration of the best serums now in use, doses of 500 to 1,000 units being far less bulky than formerly.—Dr. Bullock said the duration of immunity depended on the dose of antitoxin, but never much exceeded three weeks, and susceptibility was greatly a question of age. Antitoxin had no influence on the bacilli, which could be destroyed only by washing the throat with effective bactericides. Diphtheria was rarely, if ever, spread by means of air or water, and not often by milk; the usual mode of diffusion was association of susceptible persons with others who carried in their throats bacilli that might or might not be virulent to themselves.—Drs. Bond (Holborn), Christopher Childs, Willoughby, and others having spoken, Dr. Allan replied.

Bristol Medico-Chirurgical Society.—The fifth meeting of the session was held at Bristol on February 8th, Dr. Roxburgh in the chair.—Dr. F. H. Edgeworth showed a specimen of Abscess of the Brain.—Dr. J. O. Symes read a paper on The Bacteriology of some Suppurations complicating Pulmonary Disease. Dr. Michell Clarke, Dr. Cave, Dr. James Swain, Mr. R. Williams, and Dr. Elliott discussed the paper.—Dr. Michell Clarke read a paper on Some Cases of Apoplexy, illustrated by lantern slides showing numerous temperature charts.—Mr. T. Carwardine showed microscopic and lantern slides illustrating Paget's Disease, and Mr. R. Williams spoke on the subject.—Mr. W. H. Harsant read notes on a case of Actinomycosis, and illustrated his paper with microscopic and lantern slides. Dr. Waldo made some remarks on the treatment of the disease.—Professor Fawcett showed a large number of lantern slides of Sections of the Cord, Medulla, and Mid-brain, stained by a modification of the Pal-Weigert method.

Glasgow Medico-Chirurgical Society.—At a meeting on February 3rd Dr. Hinshelwood showed (for Dr. McCall Anderson) a typical case of Psoriasis Rupioides occurring in a girl, aged 9.—Dr. John Love showed: (1) A case of Locomotor Ataxia associated with Diabetes Mellitus. The ataxia had developed with great rapidity. There had been some improvement of late under Frenkel's method of re-education of the muscle sense; (2) a case of Locomotor Ataxia with Charcot's Joint Affection very typically developed in the left knee, and commencing in the right; (3) a case of Pseudo-Hypertrophic Paralysis of four years' duration, beginning at the age of 14. The case was isolated, there being no nervous history in any other member of the family.

West Kent Medico-Chirurgical Society.—The fourth meeting of the forty-second session was held on February 3rd, Dr. Morgan Dockrell, President, in the chair. Five new members having been elected and several members admitted, Dr. Dundas Grant read a paper on Cases of Chronic Suppuration of the Frontal Sinus and Antrum of Highmore treated exclusively through the nose with good result. The paper was discussed by the President and Drs. Scholefield, J. P. Purvis, Toogood, Lorimer Hart, Clarke, Roberts, and Munro.—Dr. Grant replied.

The Cigarette before the Law.—The Supreme Court of Tennessee has decided that the cigarette is not a legitimate article of commerce. This decision was given in an action brought to test the law passed some time ago by the State Legislature prohibiting the sale of cigarettes. The Supreme Court has ruled that the law in question is constitutional, and must be enforced. The ingenuous youth of Tennessee will now have a double pleasure when they snatch the fearful joy of a cigarette: they will be doing what is declared by their nitary oracles to be hurtful to health, and what is declared he highest legal authority to be unlawful.

REVIEWS.

Diseases of the Heart and Aorta. By George Alexander Gibson, M.D., etc., Senior Assistant Physician to the Royal Infirmary, Edinburgh. London and Edinburgh: Young J. Pentland. 1898. (Roy. 8vo, pp. 932; 210 illustrations. 24s.)

In his preface to this important work the author claims to have put forward a faithful reflection of the present state of knowledge on the subject with which he deals. His readers will readily acknowledge the justice of this claim, and may well hold themselves indebted for the clearness, precision, and completeness with which the task has been carried out. Dealing with the normal conditions in special introductory chapters, he describes and discusses with sufficient fulness the limits of modern knowledge with respect to the heart and the aorta, and their innervation. Chapters on pathology, semeiology, and treatment succeed to these, and occupy the first third of the book. In considering all debatable questions full justice is done to other workers in the same field, and their respective views are carefully dissected, but the reader is left in some instances to discover for himself what the individual views of the author may be, as they are not in all cases clearly expressed. A full bibliography to each chapter is appended at the end of the work.

The greater part of the book is devoted to a detailed description and examination of the various morbid changes to which the heart and great vessels may be subject, the question of treatment in general being taken separately. The grouping of the various cardiac remedies is at once clear and readable and marked by sound common sense. Dr. Gibson's observations on these might well have been extended even at the expense of the more theoretical and conjectural part of the work. The successful treatment of heart disease depends a good deal more upon personal experience than upon an exact knowledge of the way in which drugs ought to act, and hence the experience of those who have given much attention to the subject cannot fail to be of value. While giving a full account of the treatment by baths and exercises he makes no secret of the fact that the successes of Nauheim are not always obtained by the practice of the Nauheim treatment at home. He attributes this to the greater amount of mental and physical rest that attends the treatment in the quiet routine of the life among the Taunus hills.

Opening the subject of individual diseases of the heart he discusses congenital affections and pericarditis. It may cause some surprise among southern readers to learn that tubercle is often a factor in the production of the latter disease, and in his figure of pulsus paradoxus as an attendant symptom of suppurative pericarditis he presents a tracing which differs widely from that which has been hitherto accepted as the type to be known by that name. The chapter on endocarditis is excellent and emphasises the fact, not always recognised, that the onset and progress of the condition may sometimes be so insidious as to escape notice altogether, and that the distinction between the simple and the malignant form of the disease is often so indefinitely marked by symptoms as to render both diagnosis and prognosis extremely difficult. That many infective process in the body may set up endocarditis, especially if the curtain of the valve be altered by previous disease, is shown to be possible by the records of cases in which different infective organisms, and especially the pneumococcus, have been found to be present in the inflamed areas of the endocardium.

In the sections dealing with valvular lesions and their results, special interest attaches to those which treat of affections of the right side of the heart. These conditions do not in ordinary practice receive all the attention that they deserve, and a careful study of Dr. Gibson's well-balanced review of the subject will well repay the time devoted to it. The same judicious use of the trustworthy observations of others tempered with the teachings of the author's own experience may be noted throughout the chapters on cardiac weakness and angina pectoris, and in the sections on diseases of the aorta which conclude the work. The book as a whole is a valuable addition to medical literature. It is written in a clear and eminently readable style, the illustrative cases recorded are for the most part aptly selected, and the reproductions of photographs of morbid specimens are admirably executed.

THE MEDICAL REGISTER AND DIRECTORY OF THE INDIAN EMPIRE. By JAMES R. WALLACE, M.D., F.R.C.S.I. Second Edition. Calcutta: Barker Brothers. London: A. Reddick and Co. 1898. (Demy 8vo, pp. 756. 10s. 6d.)

THE first edition of this work was compiled and published in 1892. The objects of the compiler in preparing the Directory are stated to have been: "(1) To clear the way for a system of State regulation of medical practice in India, and by means of such a register to accentuate the need and exemplify the feasibility of a proper scheme of medical registration; (2) to create an *esprit de corps* among the scattered members of our profession in the Indian Empire by placing them in definite knowledge of one another's existence; (3) to devise a reliable means by which communication may be readily established in all matters that concern the progress and advancement of the medical profession."

The difficulties of the undertaking were enormous; but the enterprise was successful, and resulted in the issue of a fairly accurate and complete list of men, possessed of medical qualification of one sort or another, practising in the Indian Empire.

Whether the excellent objects which have been quoted were in any considerable measure furthered or attained is a question. At any rate, a useful work of reference was provided. Things undergo rapid changes in India, and a compilation of this kind very soon needs revision. The present edition is an effort to bring the information contained in the first up to date. It contains useful information of a general (medical) description; a reprint of the laws relating to medical education and registration in Great Britain; an excellent guide to medical schools in Britain and India (compiled by Major R. R. H. Moore, M.D., R.A.M.C.); lists of the military medical services of India; a retired list; and a general alphabetical list of all medical men practising in India, indicating their qualifications, residence, and appointments.

The compiler's difficulties in collecting information regarding the employment of medical officers were greatly enhanced by the existence of famine and plague rendering frequent movements necessary. The work is on the whole very creditable to his enterprise and industry, and constitutes a good foundation for a periodical issue, which will no doubt become more accurate and complete as time progresses and as the chaos of Indian medical practice resolves itself into order.

DEGENERACY: ITS CAUSES, SIGNS, AND RESULTS. By EUGENE S. TALBOT, M.D., D.D.S. London: Walter Scott, Limited. (Contemporary Science Series.) (Small 8vo, pp. 372, 120 illustrations. 6s.)

DR. TALBOT of Chicago has long been known for his industrious researches with regard to peculiarities of the palate and abnormalities of the jaws and teeth; but the present work has a much wider scope, dealing with the doctrine of degeneracy from the biological standpoint. Intended to be a more or less popular summary of the subject, we find in the volume much that is taken from the writings of others; but we have also a full account of the author's original observations, extending over twenty years, as to the stigmata of degeneration noted in the form of the skull, the development of the face and nose, the conditions of the lip, palate, eye, ear, teeth and jaws, and abnormalities of the body generally. In the chapter on the folklore of degeneracy we are told that in Shakespeare's day "stigmatic" was the popular expression for a deformed person; and reference is made to the epithet hurled at the unhappy Richard by Queen Margaret:

> But thou art neither like thy sire nor dam,
> But like a foul misshapen stigmatic.
> *III Henry VI*, ii, 2.

The views of Aristotle, Sylvius, Hippocrates, Erasmus Darwin, Rush, Morel, and Moreau of Tours are passed under review, and the principle of biologic degeneration, elucidated by Döhrn and further elaborated by Ray Lankester, is shortly stated to be "a reverse of evolution." This statement is illustrated from the studies of Niepce, Vogt, and others on idiot biology, and from those of Grohmann, Despine, Elisha Harris, Royce, and Hoyt on criminal types. The great value of Lombroso's publications in elucidating the modern doctrine of degeneracy, which attributes distortion of mental faculties otherwise seemingly high to deformity rather than disease of the brain, evidenced by certain physical concomitants, is fully recognised.

The stigmata of degeneracy are considered as divisible into mental and physical, and are said to be best observable in their relations to the "periods of stress." The heredity of acquired defects is discussed at some length, and in opposition to the doctrine of Weismann Dr. Talbot advances original information which he has obtained from experienced Jewish authorities in Chicago to the effect that preputial deficiency is somewhat frequently met with in Jewish infants, the prepuce being congenitally absent (according to the experience of Dr. Bauer) in no less than 3½ per cent. The transmutations of heredity are strikingly illustrated in the family history of an American "Napoleon of finance." Consanguineous marriages, it is urged, are not necessarily so disastrous as factors of degeneracy as those of "social consanguinity" (to adopt Strahan's term). The results of race intermixture are stated to turn largely on the environment, as illustrated in the career of the Dumas family.

In discussing the influence of toxic agents in producing degeneracy, Dr. Talbot, contrary to current opinion, gives the first place to tobacco, the second to alcohol or opium. With Krafft-Ebing, Kiernan, and Spitzka, he maintains that intolerance of alcohol is an expression of degeneracy. Opium he alleges to be a considerable factor in the causation of insanity, whilst all sorts of ills, both mental and physical, are attributed to the abuse of tobacco. "Tuberculous neurasthenia" is made much of, and the author considers that "tuberculosis is from every standpoint a social danger more serious than syphilis."

Climate, soil, and food are considered in connection with racial characteristics; and the "Yankee" change of type is illustrated by portraits of four generations of a noted American family. Changes in the form of the head and of the face in relation to degeneracy are traced out in considerable detail. Stress is laid upon the defective conditions of the occiput, and of the interdependence of cranial and facial characteristics in this connection. Arrest of development of the bones of the face and the upper jaw, often with asymmetry, is commonly met with in the criminal type. Dr. Talbot argues that deflection of the nasal septum may lead to the obliteration of the smaller cavity; that mouth-breathing results; that catarrh intensifies matters and leads to post-nasal growths; and that thus a vicious circle is established.

Dr. Talbot writes as an authority on the degenerate teeth and jaws. "The evolution of the jaw," he says, "is towards shortening in both directions ...... In the progress of evolution man has lost one lateral incisor on each side, and the second lateral seems also destined to disappear. Degeneracy of jaws has resulted from inability to adjust structure to a changing environment ...... If the jaw be arrested and be smaller in circumference than the teeth, a break takes place in the dental arch and deformity results." The primary division of irregularities is the V-shaped and saddle-shaped arches. About 50 per cent. of criminals at the Elmira Reformatory have shortening of the body of the lower jaw. A valuable table of deformities of jaws and teeth noted by the author in 7,950 cases, including criminals, insane, imbeciles, deaf-mutes, blind, and inebriates winds up this portion of the subject.

As may be gathered, the book is a valuable contribution to an important subject, but each of the eighteen chapters is so crowded with information that we find it difficult to give to our readers an adequate idea of its contents. The writer deals in a scientific manner with the many questions raised, and seeks to base his arguments and conclusions on observed facts, avoiding the large generalisations from scanty data which are to be found in too many books on the subject of degeneration.

DIE GYNÄKOLOGIE DES PRAKTISCHEN ARZTES. [Gynæcology for the Practitioner.] Von Dr. WILHELM NAGEL, a. o. Prof. der Geburtshülfe und Gynäkologie a. d. K. Friedrich-Wilhelms Universität, etc. Berlin: H. Kornfeld. 1898. (Roy. 8vo, pp. 375; 87 woodcuts, and 2 plates. M. 8.)

NOBODY can doubt that the practitioner should not only be well grounded in gynæcology at the beginning of his career, but should learn as years pass by all that can be known about the constant advances made in that speciality. The speedy removal of retained and adherent products of conception is a duty which a general practitioner is not rarely called upon to perform. Hence Dr. NAGEL includes, in the list of instruments needed, two blunt curettes, chiefly for removal of pieces of tissue after abortion, and one sharp curette for scraping out cancerous tissue. On the other hand, he does not encourage the abuse of this instrument. Thus under the head of endometritis he distinctly teaches that it is no panacea for that disease, though necessary in the hæmorrhagic form due to decidual relics.

Dr. Nagel rightly lays more stress on anatomical knowledge than on pathology. Without anatomy, he insists, correct gynæcological diagnosis is inconceivable. The diagrams of parametritis and other morbid conditions are fairly clear and instructive. On the other hand, ovariotomy and vaginal extirpation of the uterus are out of place in a work of this class. Abdominal hysterectomy is, it is true, not described at full length, but a more cursory note on the subject than the paragraphs actually written would have been advisable. There are general practitioners who from circumstances are experienced general surgeons and who sometimes find themselves called on to do an ovariotomy or hysterectomy. For them the directions in this treatise are insufficient. Dr. Nagel is nevertheless far less to blame in this respect than are the authors of nearly every other textbook of the same type. Altogether a better work on gynæcology for the practitioner would be difficult to find.

NOTES ON BOOKS.

BALNEOLOGY AND CLIMATOLOGY.

AT first sight it appears curious that a regular establishment can exist at Berlin for the treatment of patients with mud obtained in Italy. The mud, however, obtained from the thermal springs of Battaglia is very fine, and lends itself peculiarly well for application in the form of hot poultices. It is, moreover, naturally mixed with the thermal water, and needs no expensive preparation as does the mud at many other health resorts. More is obtained at Battaglia than is required for local use, and much can be exported. The Berlin establishment, we learn from Dr. HUGO DAVIDSOHN, who has written a book on the subject, *Die Ergebnisse der Fango-Behandlung nach den Erfahrungen an der Berliner Fango-Kuranstalt* (Berlin: A. Hirschwald. 1898. Pp. 56, four illustrations. M.1.70), was founded in 1897, and in the first year as many as 656 patients, suffering from chronic gouty and rheumatic joint affections, neuralgias, and other complaints, were treated. The results obtained in 387 cases are carefully tabulated by Dr. Davidsohn, and appear encouraging. The remaining patients are not included in the statistics, either because they did not continue to come or because they are still under treatment.

IN *Kritische Betrachtungen über Ernährung, Stoffwechsel, und Kissinger Kuren* (Wiesbaden: J. F. Bergmann. Glasgow: F. Bauermeister. 1898. Crown 8vo, pp. 136. 1s. 9d.), Dr. R. BRASCH gives his views of what should be the principles of balneo-therapeutics in general, and of the Kissingen treatment in particular. He believes that there are many persons who undergo courses of mineral waters according to some fixed plan they hear of, without consulting a local medical man. This, he thinks, is the cause of numberless mistakes—unsuitable diet, unreasonable use of the mineral water, and too much or too little muscular exercise during the cure. When speaking of gastric affections, he utters a caution against the occasional overuse of the stomach tube in cases where the mineral water treatment and a suitable diet can by themselves improve or cure. In the appendix are some general hints to visitors, notably one against excessive smoking during the course of treatment, and especially against passing a long time in rooms where much smoking is going on, for he thinks, probably with justice, that it is more injurious to sit in a room full of tobacco smoke than to smoke a cigar in the open air.

DR. G. LORIMER has provided an introduction and some notes for the twenty-seventh edition of the *Original and Standard Guide to the Use of the Buxton Mineral Waters*, by the late W. H. ROBERTSON, M.D., F.R.C.P. (Buxton: C. F. Wardley. Cr.8vo, pp. 61. 6d.) Much of what related to the topography and municipal progress of the district has been omitted, as being better suited to ordinary guide books than to a medical guide. The introduction gives an account of the climate of Buxton and the neighbourhood, the diseases suitable for treatment there, etc. The actual text has been left unaltered except by the addition of footnotes. A record of cases treated at the Buxton Devonshire Hospital during the last five years is appended.

There is an astonishing amount and variety of information in *Madeira and the Canary Islands* by A. SAMLER BROWN (London: Sampson Low, Marston, and Co. 1898. Demy 8vo, pp. 346, with numerous maps, plans, and diagrams. 2s. 6d.). The information contained in the present edition, which is the fifth, has been revised, and contains about 80 more pages than the last. Many additions have been made to the sections devoted to climate, and the medical matter has been greatly added to. The book is altogether very complete.

Dr. A. PETRIDIS, surgeon to the Greek Hospital at Alexandria, has printed a brief clinical study of the operation for abscess of the liver recommended by Dr. Zancarol (*Etude Chirurgicale Clinique sur un Nouveau Procedé Opératoire Explorateur concernant les Abscès du Foie*, etc.) Alexandria: Imprimerie Générale L. Carrière. 1898. (Cr. 8vo, pp. 148.) The method, which the author has somewhat modified, but not in any essential particular, consists in making by means of the thermo-cautery an incision starting in the mammary line at the level of the seventh rib, and directed horizontally outwards to the posterior axillary line. Portions of the seventh or eighth ribs are resected over a length of 12 to 15 cm., and the incision is deepened with the cautery down to the capsule of Glisson. The liver is then explored by the finger and by the needle, and a single abscess or multiple abscesses dealt with in the usual fashion. For this operation the author suggests the name "polypleurodiaphragmatomy." The dangers of exploratory puncture are dealt with at great length and with tiresome reiteration. The greater part of the volume is made up of verbatim quotations from many French authors and from the reports of societies. There is very little that is novel. A short article in a periodical would have sufficed to convey the author's message; a book was not necessary.

The faultiness of rum consists in a turbidity and increased fluorescence, both made more apparent by dilution. The authors of the *Micro-organisms of Faulty Rum* (J. H. VELEY, M.A., F.R.S., and LILIAN J. VELEY. London: Henry Frowde. 1898. Pp. 72. Plates vii. 5s.) show that this is due not to any resinous or other matters extracted from the casks, nor to saline or other precipitates, as has been supposed, but to the presence of an organism which they have christened coleothrix methystes. This they have cultivated in various media, and they show that it possesses three forms, namely, coccus, rod, and filament. Excellent illustrations are given of the various forms and stages met with in its life-history. A perusal of the various arguments brought forward inclines us to accept the author's decision that it belongs to the group associated by Migala under the title of chlamydobacteriaceæ. The remarkable fact is that the organism retains its vitality in spirit of strength equal to 70 per cent. The writers display a complete knowledge of their subject, and have evidently made themselves well acquainted with the various streptothrix forms, with which their organism is allied. It is to be regretted that they advance no practical suggestions for the prevention of the mischief, though from a close perusal of the book ideas may be obtained of the lines upon which to work with reasonable hope of success.

THE Association of German Alienists will hold its annual meeting this year at Halle on April 21st and 22nd. Among the subjects to be discussed are the Limits of Criminal Responsibility in Diseased Mental States, and the Present Condition of the Neuron Doctrine.

THE Cheshire County Council has appointed a committee to consider the propriety of establishing a sanatorium or reformatory under the Inebriates Act, 1898, for the county of Cheshire. It was stated that an excellent site could be obtained in Delamere Forest on Crown property.

THE PREVENTION OF TUBERCULOSIS.

Cheshire County Council.

A quarterly meeting of this Council was held at Chester Castle on February 9th. Mr. George Cooke (Clayley) had on the agenda a motion calling upon the Parliamentary Committee to oppose the Manchester Corporation (General Powers) Bill, 1899, in order to obtain amendments of Section xx, with a view to protect the interests of the milk producers of the county. In announcing that he would not that day propose the motion of which he had given notice, he said that the Manchester Corporation had already removed several points to which his resolution referred. He thought, speaking on behalf of the farmers on that Council and the large body of farmers they represented, there would be no objection to local authorities protecting themselves. All they wished was that in protecting themselves they should not injure the producers, and that they should not interfere with a legitimate trade. They thought the Bill proposed to put too much power in the hands of an official who might be appointed by any local authority, by providing that such an official could come into the county and say what animals were fit to sell milk from and what animals were not. They had their own officers in the county, who were fully qualified for the work, and to them this work ought to be entrusted.

Dr. Hodgson (Crewe) said there were two questions involved in the Manchester Bill: First there was the suffering community; then there was the suffering farmer. He had sympathy with the suffering farmer, but if he had to place one position before the other he should place the position of the suffering consumptive before that of the suffering farmer. He should oppose in every way he could anything which would prevent Manchester from saying, "We have found consumption coming through this milk; that milk must be stopped." He was sure there was nothing which damaged the farmer more than the retention among a herd of cattle of a tuberculous animal. It was a fact even more positive, if that was possible, that there was nothing more necessary for the community or for the county than to get rid of the tuberculous milk which was poisoning the people. Their medical officer reported every year over 700 deaths from consumption. Consumption was now known to be preventable, and it was their duty to nip it at its source where it was derived from the food which came to man. That was what Manchester was asking for. He could not see how Parliament could deny to any community the protection that was sought in this respect. With regard to Cheshire, this matter would come before a Committee of the whole Council before anything was finally done, and he did not think it would be found difficult to introduce such clauses as would protect the farmer.

Dr. Hewitt (Northwich) said that the Dairies Order was not by any means carefully carried out in Cheshire, and those who were remiss in this matter were Boards largely composed of farmers. That being the case, it was only right that Manchester, Liverpool, Warrington, and Stockport should take some steps to prevent their large populations suffering. He was not at all surprised that Manchester should feel it to be its duty to move in the matter; but, while protecting Manchester, they ought to see that no injustice was done to their own farmers.

Mr. C. H. Pedley (Crewe), replying to the argument that enormous loss would ensue from the carrying out of such provisions as those sought by Manchester, said the medical officer had informed him that in the case of a tuberculous animal whose milk was not fit for consumption, the flesh of the animal in a few weeks might become fit for human consumption. Therefore the loss would be a very small matter indeed, and one that the nation would be glad to make good.

Manchester.

Dr. Pilkington (Preston) presided at a meeting of the North-Western Branch of the Incorporated Society of Medical Officers of Health held in Manchester on February 10th.

Professor Delépine read a paper on The Prevention of Tuberculosis, in which he said that in Manchester an attempt was made nearly ten years ago to establish a form of voluntary notification, and since that time some of the houses of persons who died of phthisis had been disinfected. But only the fringe of the question was touched. What was needed was a notification of the occurrence of tuberculosis—more especially of the most infectious form, phthisis—in the same way as other contagious maladies were notified. Any serious attempt to deal with the disease must have notification as its basis. The increased work and expense involved would not create so large a difficulty as some imagined. More money was voluntarily raised for hospitals than would be needed for a more useful system of notification, and if the Government could see its way to sanction the expenditure of public money in support of notification, it would be easy to stimulate public interest to such an extent that funds would be raised voluntarily and placed at the disposal of the sanitary authorities for the carrying out of this important work. The establishment of sanatoria for the treatment of consumptives was a wrong measure, because it passed over the most important preliminary step by which the sources of infection should be discovered.

Dr. Niven (Manchester) said the difficulties in the way of notification were considerable, but not insuperable. They could not carry education on the subject to the people who needed it most—in the slums and lodging-houses—except by a system of notification.

Dr. Howarth said at Darwen he always had the houses disinfected in which persons had died of consumption.

Dr. Wheatley (Blackburn) moved that in the opinion of the Branch the notification of phthisis was necessary as a preliminary to further action. Disinfection of death chambers, he said, was equivalent to an admission that the disease ought to be notified. Everything used by a consumptive should be disinfected. One advantage of notification was that the disease would be earlier diagnosed by the medical attendant than was now the case. The expense of notification would not be very great, although medical officers' staffs would have to be augmented. The objection of the public to notification would soon disappear when it was thoroughly understood that the disease was infectious and not hereditary. The doctors of Blackburn had unanimously passed a resolution recommending the Health Committee of the Corporation to add phthisis to the list of notifiable diseases, but the Local Government Board could not allow it to be done.

Dr. J. Vacher (Medical Officer of Health for Cheshire) criticised the programme of the recently formed National Association, because it left notification out, and confined itself to public education and the influencing of administrative bodies.

Dr. Berry (Wigan) said phthisis was not so infectious as scarlet fever, measles, or whooping-cough, and, though he supported the resolution, he believed the disease was often inherited.

Dr. Hayward (Haydock) could not see the benefit to be derived from notification. The expense would be prohibitive. The disease ran too long a course, and it would not be possible to shut up phthisical persons who needed to be out of doors. Notification suggested a state of things in which a man with tuberculosis would not be able to cough in public without first ringing a bell.

After further discussion, a resolution in favour of notification was carried.

Dundee.

A public meeting called by the Lord Provost was held at Dundee on February 8th, to consider the advisability of aiding the national movement for the prevention of consumption and other forms of tuberculosis. Lord Provost M'Grady, who presided, said the meeting had been called that day in consequence of a request made to him by the members of the Forfarshire Medical Association, that he should ask the inhabitants of Dundee to meet to consider what should be done locally to support the national movement to which he had referred. The movement was being very heartily taken up both by doctors and by laymen. Having explained the objects of the National Association for the Prevention of Tuberculosis, he said that when the time came to consider the erection of a local sanatorium he thought they would find that they were well situated for that. They had on the southern slopes of the Sidlaws an ideal situation for such an institution. In conclusion, he read a letter from Mr. Kyd, Inspector of Poor, to the effect that the Parish Council supported the request of the Forfarshire Medical Association for the holding of a public meeting on the subject.

Dr. J. W. Miller moved:

> That this meeting desires to express its full sympathy with the aims of the National Association for the Prevention of Consumption and other Forms of Tuberculosis, and to urge upon the public of Dundee the strong claims which this movement has upon them for their active support.

At one time, not so very long ago, the man who spoke of stamping out typhus fever was considered a dreamer. Let them look at the state of things now. New knowledge had come to them concerning tuberculous diseases, and he had no doubt that, recognising this, their authorities would show the same spirit as in the past. He had little doubt that sooner or later even in their own near neighbourhood they would have sanatoria of different classes in which open-air treatment should have a fair chance.

Dr. Charles Templeman, Medical Officer of Health for the City, seconded the resolution. He sympathised with all the Lord Provost and Dr. Miller had said with regard to the movement. Experiments showed the necessity for local authorities in burghs and in large cities having a very complete control over the milk supplies from outside their boundaries. The Corporation of Dundee had tried to get these powers, but were unsuccessful. With regard to tuberculous milk, he thought Dundee was as well protected from this danger as any place in the country. In Dundee, thanks to the enlightened policy of their municipal rulers, who had cleared out most of their narrow streets and lanes and crowded areas and given them the whole well-ventilated streets which they now possessed, the tuberculous death-rate had been reduced 25 per cent., and the death-rate from consumption had been reduced 24 per cent. in the same time.

Dr. Sinclair moved:

> That this meeting, while gratefully acknowledging the excellent measures already adopted by the local authority, respectfully recommends the Town Council, the Parish Council, the Directors of the Dundee Royal Infirmary, and of the Victoria Hospital for Incurables to adopt further measures in the light of present knowledge for the prevention and treatment of tuberculosis.

Looking to the two well-known facts that consumptive clients made a heavy annual drain on the funds of Friendly Societies, and that the best of these companies had large funds which they found it difficult to invest, he would throw out the suggestion that they might make a move in the direction of establishing sanatoria to their own advantage and that of their clients, as well as to the advantage of the health of the community at large.

The motion was unanimously adopted.

Bailie Doig moved:

> That copies of this resolution be sent to the Town Council, the Parish Council, the Directors of the Dundee Royal Infirmary, and the Victoria Hospital for consideration.

Rev. J. M. Campbell, Chairman of the Parish Council, seconded. He said the Parish Council were extremely anxious to associate themselves with any public movement for the prevention of consumption, and he could promise that the body would do its utmost to give the movement a practical effect. This motion was also unanimously carried.

ECCLESHALL.

At a meeting of the Eccleshall Board of Guardians on February 8th, the Clerk read a letter from Dr. Duncan Burgess, Honorary Secretary of the Sheffield Medico-Chirurgical Society, forwarding a copy of a resolution adopted by that Society at their meeting on February 2nd, as follows:

> That in view of the importance of educating the public in methods of prevention of tuberculous disease, it is, in the opinion of this Society, desirable that the Lord Mayor be requested to call a public meeting in Sheffield to form a local branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis.

Dr. Burgess further stated that his Society would like to know the views of the guardians on the subject, and with this object invited a deputation of the Board to meet a committee of the Society in their library at the medical department of the University College on Tuesday, February 28th.

The Chairman asked the views of Dr. Gale, the workhouse medical officer, with regard to the treatment of tuberculous cases in the workhouse infirmaries. Dr. Gale advised the guardians to assist the Society by joining in any scheme for the better prevention of tuberculosis.

The Chairman suggested that it would be very advisable for a deputation of the guardians to attend the meeting accompanied by Dr. Gale, and this suggestion was adopted.

EDINBURGH.

A conference on certain points connected with consumption was held in the Edinburgh Council Chambers on February 9th, under the presidency of Bailie Pollard, the Convener of the Public Health Committee. The members of the Conference were the Subcommittee (10 in number), to which the question had been referred, and certain invited representative members of the medical profession. The Royal College of Physicians was represented by the President (Dr. Andrew), Sir Thomas Grainger Stewart, Sir John Batty Tuke, Professor Greenfield, Drs. Wyllie, Affleck, Byrom Bramwell, G. A. Gibson, Noël Paton, and R. W. Philip; the Royal College of Surgeons was represented by the President (Professor Chiene), Sir Henry Littlejohn, Drs. John Smith, Argyll Robertson, John Duncan, Blair Cunyngham, Peter McLaren, and Francis Cadell; the University was represented by Professors Sir Thomas Grainger Stewart, W. S. Greenfield, and Hunter Stewart. There were also present Drs. Claud Muirhead, James Foulis, Andrew Smart, A. James, Caverhill, Claude B. Ker, and Williamson; and the Principals of the two Veterinary Colleges. The President of the General Medical Council (Professor Sir William Turner) wrote to express his regret that he was prevented by indisposition from being present.

Bailie Pollard in opening the meeting said they proposed to discuss: 1, The preventability of phthisis; 2, its curability; 3, sanatoria for treatment: 4, liability to the disease; 5, the question of notification. He called on the President of the Royal College of Physicians, who said a few words. He was not yet convinced as to the exclusion of heredity, nor as to the question of notification unless associated with compulsory removal.

The President of the College of Surgeons (Professor John Chiene) believed that any attempt at notification as yet would be in advance of public opinion. If there was to be notification there must be compulsory removal, and therefore an enormous hospital. Early cases ought to be taken for cure, and late cases for preventive reasons. From the surgeon's point of view, all discharges from tuberculous joints and glands, from genito-urinary diseases, etc., should be seen to. As to the milk supply, he did not believe that the tuberculin test could be used with effect till that test was under Government control and was applied by the authorities. It might then be gradually used week by week on all cows before they were admitted to dairy byres. There were several difficulties: for example, there was a difficulty in regard to milk coming into the city from a distance, and there was the thorny question of compensation for slaughter of infected animals. He thought the town could meanwhile attend to the flushing of closes and common stairs. Sir Henry Littlejohn's suggestion of using seawater for this he thought an excellent plan. Sweeping was quite unsafe. He approved of the circulation of leaflets to educate the people. There should be a city hospital of at least 100 beds for the acutely ill. He strongly commended the laws laid down for infectious hospitals at Crewe, whereby pure and non-infected milk should be supplied to these hospitals.

Sir Thomas Grainger Stewart spoke on the preventability of phthisis. He thought the municipal authorities might help in prevention: 1. By the diffusion of information among the people by some such leaflet as Sir Henry Littlejohn's (a printed stiff card would be advisable; 2, by continued perseverance in all hygienic precautions; 3, by removal of dust from closes, common stairs, schools, churches, and other public buildings (Sir Henry Littlejohn's great central flushing tank was an admirable suggestion); 4, by careful examination and supervision of milk and its sources; 5, by attention to the meat supply, though that was a long way second to the milk question; 6, by the establishment of sanatoria. These should be made very attractive for patients in the early stages. In the later stages of the disease the authorities ought to have power to act for the safety of the public. 7. He thought they were scarcely yet in a position to propose compulsory notification, but there might be some scheme of "automatic notification." The city must take up the testing of sputum, which had hitherto been done by the laboratories of the Colleges of Physicians and Surgeons, and that of the Victoria Hospital. When sputum was sent, it ought to be accompanied by the name and address of the patient, for the private use of the authorities.

Dr. Claud Muirhead spoke on the subject of curability. They must educate the people to give careful attention to colds which hung about them. The new doctrine of hospitals or sanatoria could not work miracles. They would always have phthisis with them.

Speaking of sanatoria, Dr. Affleck said that this matter ought to be worked out on medical lines, and not rushed into by public authorities while as yet they were on their trial. On the question of hospitals for the treatment of advanced cases, it must not be forgotten that the Royal Infirmary had in this matter done a great work for poor sufferers from phthisis. But only a small number of the deserving cases could be taken in. The suggested 100 beds, it must be remembered, would stand on a quite different basis from the beds in a fever hospital. The patients would be long fixtures. They must be kept in till they died. Thus the hospital would be less available than a general hospital.

Professor Greenfield next discussed liability to phthisis. He submitted certain points for the consideration of the city authorities. Everyone was liable to pulmonary consumption. Certain conditions of public sanitation diminished the liability—drainage, air-space, absence of dust, etc. Was air-space being sufficiently considered in those lofty tenements being erected in the city? The plans of those tenements did not admit of thorough ventilation in relation to disinfection as they ought. Then there were those most objectionable sleeping-places, which were essentially cupboards off a room. Rooms and houses let as lodgings ought to be inspected and disinfected. In childhood and youth there was greater susceptibility to phthisis, and this was specially increased by zymotic disease, and by measles in particular. Children were too long in school without food; young people too long in workshops along with an infected person or persons. Factories with one definite case of consumption were sources of infinite danger. Expectoration was the main channel of infection, but undoubtedly milk was a factor. All the milk used in the Royal Infirmary, in the City Hospital, and in other hospitals ought to be sterilised.

Dr. R. W. Philip discussed the subject of notification, which he said was the only logical solution of the difficulty. On the other hand, medical and public opinion was not yet ripe for notification. Was there any possibility, short of notification, approximately helpful? 1. The organisation should include a central bureau under the direct control of the medical officer of health. All patients, not under treatment at any of the hospitals or dispensaries, should be directed to this central bureau. 2. This central institution should have arrangements for nursing some patients. 3. Such a central bureau should disseminate information. 4. The bureau ought to have powers, etc., to examine all expectoration. 5. Such a central institution ought to receive official information from the registrars as to deaths from pulmonary consumption, and thus a large bulk of information would be available for public purposes. 6. Such a central institution should look forward to all institutions that take in or will take in cases of pulmonary consumption. Patients would then be drafted to pauper hospitals or elsewhere. 7. Such an organisation ought to arrange for tuberculous colonies. This, of course, was a big question, just as was leprosy.

Professor Hunter Stewart thought the question of disinfection had been overlooked. Hotels and lodginghouses should have the rooms which had been occupied by consumptives disinfected by the authorities. So, also, where a death from tuberculous disease had occurred, the room should be at once seen to. In that respect the example of Paris, Berlin, Breslau, Hamburg, and other towns should be followed.

Dr. John Duncan thought that what applied to pulmonary consumption applied to every other form of tuberculous disease.

Sir John Batty Tuke suggested that the Health Committee should look to the sweeping of the streets by huge brushes drawn by horses. These in a summer midnight sent up clouds of dust to the height of the highest buildings, and unfortunate members of the community who slept with open windows could not fail to suffer. Water carts should be sent ahead of these brushes.

Dr. Alexander James and Dr. Caverhill also made some remarks.

In response to a question by one of the members of the Public Health Subcommittee, Dr. Wyllie suggested that the municipal authorities should begin work with the very advanced cases. It was the duty of the authorities to protect the healthy members of the community from infection from such cases.

Principal Dewar, of the Edinburgh Veterinary College, advocated the systematic use of the tuberculin test, and that milk should be got only from dairies where the cows had been certified free from tuberculous disease.

Principal Williams, of the New Veterinary College, urged a pure herd of cattle for the supply of the city, and an absolute separation of affected cows from those not affected. He thought it possible to stamp out tuberculous disease as rinderpest had been stamped out.

Various other questions were asked and answered, and Bailie Pollard, in winding up the conference, said it was merely a preliminary one, and he begged the continued interest and help of the medical profession for his Committee. If the way were distinctly pointed out his Committee, the Town Council, and the citizens of Edinburgh were prepared to go on.

THE CRUSADE AGAINST CONSUMPTION.

Under the auspices of the Edinburgh Health Society a lecture was delivered (by special request) in the Free Assembly Hall on January 28th by Dr. Caverhill, the Medical Officer of Health for the County of East Lothian, on the Crusade against Consumption. The Lord Provost presided, and there was a very large audience.

Dr. Caverhill dealt fully with the subject, urging that for the prevention or extermination of consumption in Scotland it was imperative to organise public effort on national lines. He suggested the formation of a Central Joint Committee of Edinburgh and Glasgow affiliated to the National Society in London; this would stimulate cities and counties, or groups of counties, to form local Associations for the Prevention and Cure of Consumption and other Forms of Tuberculous Diseases. He suggested also that special sanatoria should be erected by (1) private enterprise, (2) associations of commercial and industrial workers, (3) philanthropic organisations, (4) sanitary authorities and parish councils. The lecture was illustrated by limelight views of the principal sanatoria in Europe. The Lord Provost moved a vote of thanks to the lecturer, and referred to the fact that in Edinburgh during 1898 consumption gave a death-rate of 2.65 per 1,000 of the estimated population, or 14.75 per cent. of the total mortality for the year from all causes, the total number being 5,320.

THE OPEN-AIR TREATMENT OF CONSUMPTION.

At a meeting of the South-West London Medical Society on February 8th, Dr. Duke in the chair, Dr. Arkle read a paper on Some Points in the Treatment of Tuberculosis. He said that, probably of all remedies, the open-air method was the most successful. Some years ago he had brought this question before the West Sussex District of the South-Eastern Branch of the Association (JOURNAL, May 16th, 1896, p. 1233). Since that time he felt more certain that the method could be worked well in the British Isles. The preliminary "hardening" of patients was a *sine quâ non*, and attention was called to this preparation as carried out (by daily sponging with spirit, etc.) at Falkenstein and other Continental sanatoria. Hospitals for consumption in towns would probably always be valuable as depôts, collecting stations, places where patients were taught the nature of their disease, and where much good could be done by the destruction of tuberculous sputum.

FROZEN MEAT FOR SOLDIERS.—A thesis on this subject has been presented to the Faculty of Medicine of Lyons by M. Henri Viry, a pupil of the School of Military Hygiene. After pointing out the advantages of frozen meat, M. Viry concludes by stating that its supply in peace permits, first, of certainty in the examination of living animals for utilisation and the easy supervision of the meat obtained, thanks to the installation of slaughterhouses and military freezing manufactories; secondly, the distribution in all garrisons of a food of known quality and certain innocuousness; and, thirdly, economy realised at the profit of the general food supply of the soldier. M. Viry says that in time of war and in case of siege frozen meat has also advantages in a hygienic point of view.

THE PATHOLOGY OF INSANITY.

THE COUNTY OF LONDON ASYLUMS LABORATORY AT CLAYBURY.

PROFESSOR CLIFFORD ALLBUTT not long ago said that clinical laboratories are the factories out of which the new medicine is to come. He instanced those recently initiated by von Ziemssen and Curchsmann in Germany, and by the late Professor Pepper in the United States. Perhaps a more striking example than any of these of the intimate connection between the laboratory and the hospital ward is one in our own country, which Professor Clifford Allbutt did not mention—namely, the Pathological Laboratory established by the London County Council at their great asylum at Claybury. The notion that the pathology of insanity could be investigated by ordinary methods of scientific research would have been deemed by most physicians, even of the last century, as akin to profanity, and as foolishness by many till near the middle of the present one. The laboratory at Claybury, where every form of mental derangement is traced to physical and chemical changes in the structural elements of the nervous system, and to the operation of pathological processes which may be seen at work in other parts of the body, is in itself a concrete illustration of the great advance that has been made in this province of medical science.

During Professor Virchow's visit to England last autumn nothing impressed him more than what he saw at Claybury. This testimony from a witness of such authority is all the more gratifying that this country—where freedom is apt to exhibit the defect of its qualities in the form of fanaticism—lies under the reproach of being behind other great nations in biological research. Splendid work in the elucidation of the pathological processes underlying insanity has been done by such pioneers as Bevan Lewis, Batty Tuke, and others in this country; and by Griesinger, Westphal, von Gudden, and others abroad. But the establishment of the Claybury Laboratory marks the dawn of a new era, as it is the first of the kind founded by a public body on a basis of complete independence from the administrative authorities of the asylum. A representative of the BRITISH MEDICAL JOURNAL some time ago had the privilege of inspecting the laboratory under the guidance of the pathologist, Dr. Mott, and a short account of what he saw may be interesting to our readers.

THE ASYLUM.

A few words may first be said about the asylum itself. This is a magnificent pile of buildings standing in 250 acres of ground near Woodford Bridge, and providing accommodation for 2,500 patients. Any person energetic enough to investigate every corner of the institution would have walked ten miles at the end of his round of inspection. The wards are bright and cheerful, everything being arranged for the comfort and safety of the patients. Lavish provision is made for their amusement. There is a ballroom, of palatial dimensions and artistically decorated in mediæval style, where dances take place to the music of a band of 25 players, and theatrical performances are given. The comfort of the officers and attendants is also well attended to. The asylum is a small town in itself. The engine rooms are suggestive of a considerable railway station. The bakehouses and kitchens recall what one reads of the old abbeys in the days of their grandeur. Four hundred and fifty 8-pound loaves are baked daily, to say nothing of cakes and other confectionery. Seventeen hundred pounds of meat are cooked every day. Everything in the bakehouse and kitchen is resplendent with cleanliness, and the sights and smells are so appetising that a visit may be recommended to sufferers from anorexia as a likely remedy.

THE LABORATORY.

The laboratory was established two and a-half years ago as the outcome of a report by a special Subcommittee of the Asylums Committee of the London County Council appointed on November 1st, 1892:

"To consider as to whether a pathologist should be appointed at each asylum, or whether one or more pathologists should be appointed, and their services be rendered available for all the asylums; and also as the precise nature of the duties to be performed by the pathologists, the salary attaching to the office, and upon any other details that may arise during consideration, with power to confer with the medical superintendents."

This Subcommittee, of which Dr. W. J. Collins was not only the Chairman but the moving and guiding spirit, collected a large amount of information from provincial and foreign asylums, and reported that a pathologist for all the county asylums should be appointed, and that he should be provided with adequate laboratory accommodation adapted both for physiological and physical examinations, and also for elaborate microscopical and chemical investigations. The pathologist was to be required to devote himself exclusively to the work, to report from time to time, and to publish the various researches in which he had been engaged and those of other medical officers under his guidance. He was not, however, to have charge of the patients, and his work was not to conflict with that of the medical superintendents. Accordingly, the Council resolved to authorise the expenditure of £4,000 for the building of a pathological laboratory and museum at Claybury Asylum, and for providing the necessary fittings and apparatus. Dr. F. W. Mott, F.R.S., who had already gained high distinction as an investigator in the field of neurology, was appointed to the post at a salary of £700 a year.

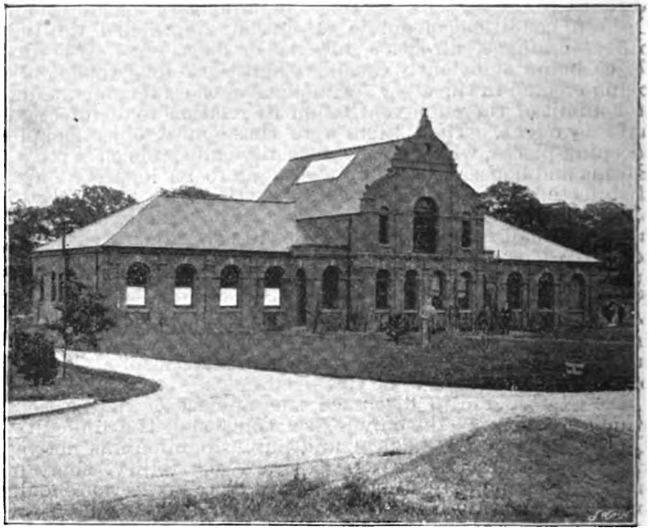

Fig. 1.—The laboratory.

The laboratory (Fig. 1) stands entirely apart from the asylum. Here the pathologist reigns supreme, and everything is arranged to serve the purposes of research. Vivisection is excluded from the scope of the investigations, but there is a chemical room (Fig. 2), a microscopic room (Fig. 3),

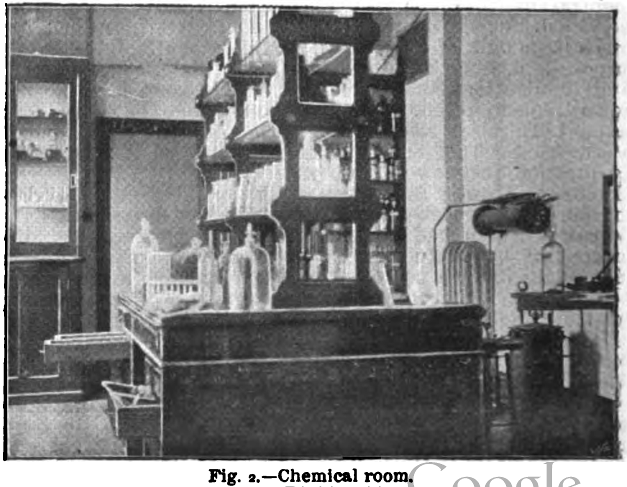

Fig. 2.—Chemical room.

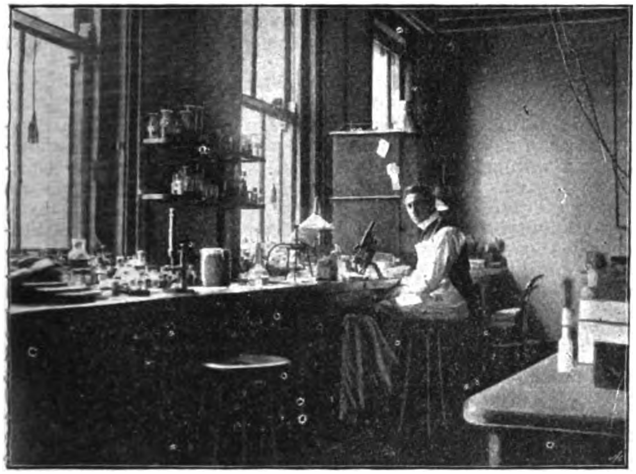

Fig. 3.—Microscopic room.

a room for physical examination, with dark room for ophthalmoscopic work, and a micro-photographic room (with Zeiss's apparatus), all spacious, well lighted, conveniently arranged, and fully equipped according to the most modern ideas. Then there is a library and reading room (see Fig. 4) supplied with the best neurological literature. This room is decorated with photographs of masterpieces of the art of staining, executed in the laboratory.

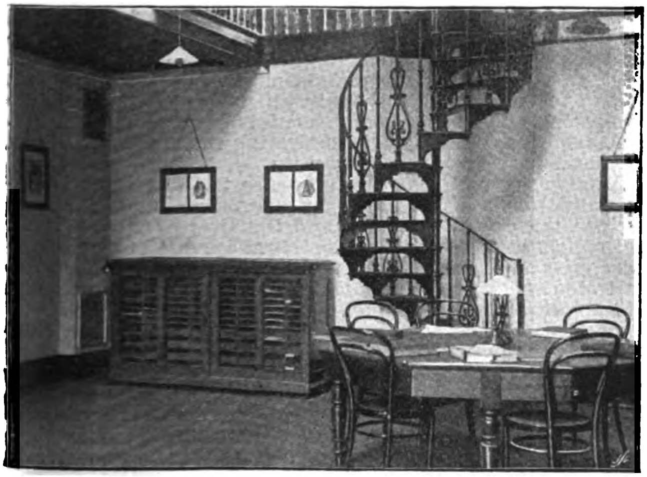

Fig. 4.—Library and reading room.

The *post-mortem* room is well lighted and absolutely free from smell. Our representative was much struck by the care taken to save the feelings of the friends of the dead. There is a cheerfully-furnished waiting-room for their special use; when they wish to take their last look at the departed the coffin is wheeled into the central hall where there is no trace of anything unpleasantly suggestive. The bodies of all patients who die in the asylum are examined. The number of necropsies averages 200 in the course of the year. The examination is very complete, and the notes of the results are extremely full. In the *post-mortem* book four pages are given to each case—two for the results of the naked-eye examination, one for the results of the microscopic examination, and one for the clinical history and such facts bearing on the case as can be obtained from the patient's friends, who are always interviewed whenever practicable. The pathological records at Claybury are not only singularly complete in themselves, but they are brought as far as possible into relation with clinical facts. The materials thus obtained are kept in an ingenious case of shelves in the reading room, the clinical and *post-mortem* notes, with drawings of the microscopic appearances and slides, being all collected together, so that the whole record of any given case is at once accessible. Dr. Mott holds strongly that laboratory research requires to be supplemented by the results of clinical observation, the pure laboratory worker being apt to degenerate into a narrowness of view which is as unscientific as it is unpractical.

One of the most interesting features of the Claybury laboratory is the "cold chamber" for the preservation of pathological material, which was devised by Dr. Mott and constructed in accordance with his ideas by Mr. Clifford Smith, engineer to the asylum. This "cold chamber" excited the particular interest of Professor Virchow. A similar one has been constructed in the new laboratories at Liverpool, and we understand that others are likely to be introduced at St. George's and the London Hospitals. A short description of it will therefore not be out of place (Fig. 5).

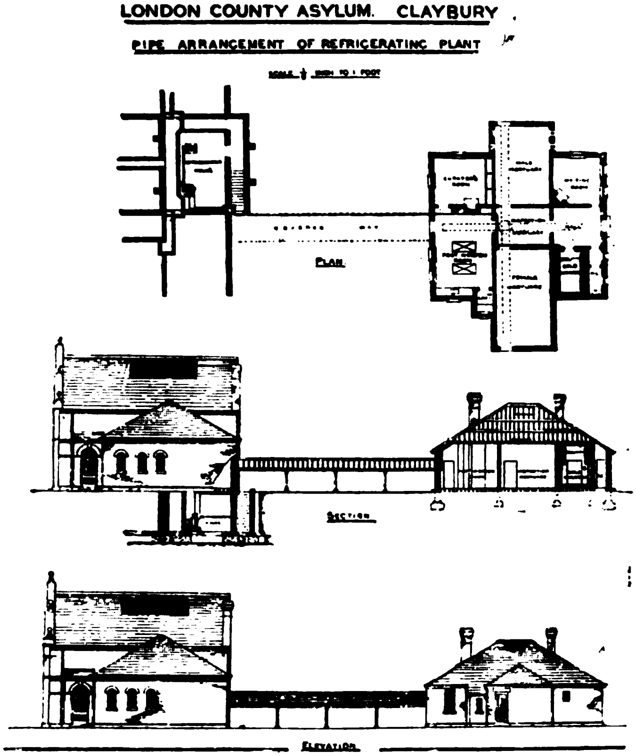
LONDON COUNTY ASYLUM. CLAYBURY
PIPE ARRANGEMENT OF REFRIGERATING PLANT
SCALE ⅛ INCH TO 1 FOOT
PLAN
SECTION
ELEVATION

Fig. 5.—The "cold chamber."

The chamber in which the bodies are placed is a room 10 feet 6 inches long by 7 feet wide by 10 feet high, and it is protected from the outside changes of temperature by insulating the walls, floor, and ceiling with wooden casings filled with sawdust some 14 inches thick.

Two wrought-iron tanks 9 feet long by 4 feet wide by 6 inches deep are secured to the walls at a height of 5 feet from the floor. Through these tanks the brine solution from the refrigerating machine is pumped, and the temperature of the chamber is thereby reduced to the desired point, from 32° to 35° F. An inspection window enables the attendant to take the temperature without opening the doors, and the electric lamp lighting the thermometer is controlled by a switch which is also outside.

The refrigerating machine and electric motor for driving it are placed in a cellar at a distance of 96 feet from the cool chamber. The agent used to bring about the low temperature of the brine solution is carbonic anhydride gas. Work is done in compressing the gas with consequent rise of temperature in the compressor of the machine. The gas then passes through a series of coils (Fig. 6) which are surrounded by cold water, and is thus cooled and liquefied. The liquid carbonic anhydride next passes into a second series of coils placed in the brine solution. The carbonic anhydride evaporates, does work, and in so doing absorbs from the brine solution the amount of heat equivalent to the work done. The gas then passes into the compressor and repeats the cycle of operations

The brine solution, which in this case is cooled to 20° F., is pumped through pipes leading to the tanks in the cool chamber, a constant circulation being maintained. The refrigerating apparatus was made by Hall, of Deptford.

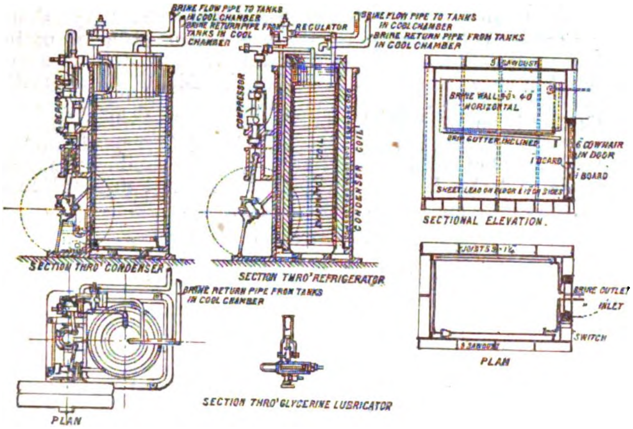
BRINE FLOW PIPE TO TANKS IN COOL CHAMBER
BRINE RETURN PIPE FROM TANKS IN COOL CHAMBER
REGULATOR
BRINE FLOW PIPE TO TANKS IN COOL CHAMBER
BRINE RETURN PIPE FROM TANKS IN COOL CHAMBER
SEPARATOR
COMPRESSOR
CONDENSER COIL
SAWDUST
BRINE WALLS 4'0 HORIZONTAL
DRIP GUTTER INCLINED
6 COWHAIR IN DOOR
1 BOARD
1 BOARD
SHEET LEAD ON FLOOR & 1'2 ON SIDES
SECTIONAL ELEVATION.
SECTION THRO' CONDENSER
SECTION THRO' REFRIGERATOR
BRINE RETURN PIPE FROM TANKS IN COOL CHAMBER
JOISTS 9×1½
BRINE OUTLET
INLET
SWITCH
SAWDUST
PLAN
SECTION THRO' GLYCERINE LUBRICATOR
PLAN

Fig. 6.—Refrigerating apparatus.

The requirements of Claybury are fully met by running the plant for seven hours per day during summer and two hours and a-half per day during the winter months.

The Staff.

Of the head of the laboratory, Dr. Mott, but little need be said; his work speaks for him. The London County Council may be congratulated on having secured a man of such distinction as their pathologist. They may also be congratulated on their enlightened policy in leaving him a free hand in the organisation of the laboratory, and on their liberality in the supply of whatever he thinks necessary for the successful carrying on of the work with which they have entrusted him. In the position which he holds as an officer of a body which to some extent represents the prejudices of the public, as well as its better instincts, it is easily conceivable that his work might be spoilt by ignorant and meddlesome interference. Dr. Mott is, however, fortunate in having behind him a committee which does all in its power to help him. From Dr. E. B. Forman, the Chairman of the Pathological Committee, from Dr. W. J. Collins, from Dr. Cooper and Dr. Blake, and from Mr. Hubbard, the Chairman of the Asylums Committee, he has received steady and loyal support, and the Council as a whole has shown itself progressive in the best sense in its interest in the work which he is doing. As to what that is something will be said presently. Here it is sufficient to say that, although Dr. Mott's work was interrupted a year ago by a serious illness which disabled him for several months, the two annual reports which he has presented to the Council give proof of much work actually accomplished and promise of future results of the highest importance. It should be mentioned that Dr. Mott is pathologist to the county asylums at Hanwell, Colney Hatch, Cane Hill, and Bexley Heath, as well as at Claybury. He keeps a list of cases which are likely to present features of special interest, and is immediately informed when death takes place. Dr. Mott has been assisted for more than eighteen months by Dr. Wakelin Barratt, who holds a special scholarship from the Board of Technical Education. Dr. Barratt, who has been appointed Pathologist to the West Riding Asylum, will leave Claybury in March. The term of his scholarship, which is of the value of £150 a year, expires in June. The election is made for a year, and the duties of the scholar are to do research work under the pathologist. A regular assistant has lately been appointed in the person of Dr. Hamilton Wright, who has already done good work in neuropathology. Among others who have worked in the Claybury laboratory are Dr. Head, Mr. Tredgold, and Dr. Durham. All earnest workers are welcomed in the laboratory as far as there is accommodation for them; the apparatus, reagents, etc., are placed freely at their disposal, but they must work under the general direction of the pathologist. It is to be hoped that advantage will be taken of the excellent opportunities for research provided by the Claybury Laboratory by increasing numbers of students, and that a school of neuropathology may be developed there.

Lines of Work.

It is impossible here to do more than refer in the briefest way to the lines of research which are being pursued at Claybury. The relation of syphilis to general paralysis is an important subject which Dr. Mott is doing much to elucidate. He was particularly struck by the fact that in cases of general paralysis which he had occasion to investigate he could usually obtain a history of venereal infection, particularly in those cases which come to the hospital and are therefore seen in the early stages before the dementia is marked. Dr. Mott showed our representative the notes, photographs and microphotographs of 20 cases of the juvenile form which clearly showed that syphilis had played a prominent part in the pathogeny of the mental disturbance. He asked Mr. Lewis, senior medical officer on the male side at Claybury, who was sceptical as to the relation of general paralysis to syphilis, to make personal investigations on the point during one year. By careful observation Mr. Lewis was able to show that a history of signs of syphilis was obtainable in a large majority of general paralytics. Dr. Mott's *post-mortem* records show that syphilis is a common cause of organic brain disease, and this agrees with hospital experience. No doubt, as his records prove, arterial disease is often overlooked.

Dr. Mott has examined a large number of cases of brain syphilis. In 32 cases, mostly met with in his practice at Charing Cross Hospital and at the asylums he has been able to obtain trustworthy information as to the date of infection, and he has found that one-half of those cases occurred within the first four years. The worst cases are those that occur soon after infection. The cases presenting the greatest difficulty in regard to diagnosis are those in which there are no paralytic symptoms, only headache and mental disturbance. Dr. Mott has also been engaged in investigating the relation between ororganic brain disease and insanity.

Another research has had reference to the changes in the pyramidal cells of the brain, fatty degeneration of the heart, striped muscles, the kidney and the liver in cases of status epilepticus and prolonged epileptiform convulsions of general paralysis and other diseases. A preliminary communication, illustrated by lantern slides and microscopic specimens, was given at the last pathological meeting of the Neurological Society.

Dr. Wakelin Barratt has, under the direction of Dr. Mott, studied the condition of the vagus, and some of the sympathetic nerves in general paralysis of the insane. With a single doubtful exception no nerve degeneration has been met with. Dr. Barratt has examined the nerves and organs in two cases of beri-beri, the specimens being obtained from patients who died in the Branch Seamen's Hospital, Albert Docks, under the care of Dr. Manson. Here some of the medullated nerves were found to be degenerated, but no micro-organisms were met with either in the nerves or in the tissues, excluding one lung which was affected with pneumonia. He has also been engaged in the estimation of phosphorus and sulphur in the brain and spinal cord in healthy and diseased brains, and in the histological examination of the brain cortex in these cases. Dr. Barratt is also engaged with Dr. Mott in describing the clinical and pathological phenomena of a series of cases of tumour of the third ventricle.

Dr. Durham has been engaged in working out the pathology of ulcerative colitis. He has succeeded in isolating a very minute coccus which has hitherto eluded observation.

The work of the Claybury Pathological Laboratory is necessarily rather summarily described in the reports presented by the Pathologist to the London County Council. It is satisfactory therefore to learn that there is a prospect of the publication of a series of *Archives* in which the researches of Dr. Mott and his fellow workers will be set forth in detail. These will, there can be no doubt, contribute most materially to the progress of neurology, and the London County Council will deserve well of science and therefore of mankind by undertaking their publication. A body which has shown such enlightened liberality in the erection and equipment of the fine laboratory at Claybury may be trusted to do everything necessary to ensure the complete success of the work so well begun.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1899.

SUBSCRIPTIONS to the Association for 1899 became due on January 1st, 1899. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, FEBRUARY 18TH, 1899.

THE HUNTERIAN ORATION.

IN some respects it is no easy task to act as Hunterian Orator; in other respects it is quite easy. It is no easy task because since the year 1814 the Hunterian Orator, in the opinion of his contemporaries, has been the most learned, the most thoughtful, or the most fluent member of the Council of the Royal College of Surgeons of England. In the early years of the century the orators were the relatives, the friends, and the pupils of John Hunter, and we owe them a debt of gratitude, for they have preserved to us many reminiscences which must otherwise have died. On the other hand, it is still quite easy to give the Hunterian Oration, for John Hunter was a man of so many sides and of such infinite knowledge that justice has not even yet been done to him, though the fifty-ninth oration has now been delivered. It is fitting, too, that the oration should be delivered, for the vastness of his knowledge and the importance of his teaching are by no means apparent to everyone. There are many who seem to be quite incapable of understanding either his methods or his teaching. Repelled by the ruggedness of his style and the occasional obscurity and inaccuracy of his conclusions, they do not love to think, and they hate to pile fact upon fact, leaving others to generalise. Yet it was precisely in his love of thought and in his power of accumulating individual instances that Hunter outshone his compeers and stood alone in biological science until the advent of Darwin. But Hunter differs from Darwin in that he rarely draws any conclusions from his repeated observations. He is often content to say, "I have seen," or "I remember." It is not until we are familiar with the state of contemporary knowledge and thought that it is possible to realise how much he was in advance of his time, for his methods were those which have only come into general use during the latter half of the present century, the methods of repeated experiment and patient observation.

It is from this standpoint indeed that Sir William Mac Cormac has chosen to consider his Master in the well designed, excellently expressed, and very lucid oration which he delivered last Tuesday in the presence of H.R.H. the Prince of Wales and a large audience. After a short but sufficient sketch of Hunter's life the Orator proceeded to contrast the very different manner in which the subject of animal heat was treated by Harvey and by Hunter. Harvey considered it wholly in a metaphysical spirit. Hunter availed himself of experiment supplemented by the results of the latest researches in chemistry. The experiments led him to the hibernation of animals and made him write the half-serious, half-jesting letter of condolence to Edward Jenner, a former pupil who had lately been jilted, which ended with the queer *remedium amoris*, "But never mind her, let her go. I shall employ you with hedgehogs." Turning from the physiological to the more strictly surgical side of Hunter's work, Sir William Mac Cormac passed in review Hunter's observations upon injuries of the head, and he arrived at the remarkable, but probably correct, conclusion that "I doubt if our modern surgery, despite its knowledge of cerebral localisation, can advance much further than Hunter was prepared to go."

Hunter's name is associated in the minds of many surgeons solely with the operation of ligature of the femoral artery at a distance from the seat of aneurysm, and Sir William Mac Cormac did well to recall the stroke of genius which led to so great an advance in the practice of surgery. Hunter, who was engaged in studying the growth of horn, caused a buck to be thrown in Richmond Park and tied its carotid artery. The pulsation in the velvet ceased and the antler grew cold. A week later the antler was growing and warmth was restored. The buck was killed; the ligatured artery was found to be obliterated, and the circulation was carried on by small vessels above and below the place of ligature, which had proved themselves sufficient to restore the blood current to the growing antler. Hunter pondered this result in his heart from July to December, 1785, when a coachman suffering from popliteal aneurysm was admitted into St. George's Hospital. Him Hunter persuaded to have his femoral artery tied. The man was cured of his aneurysm and recovered from the operation, which thenceforth took rank as one of the most successful in surgery, quite displacing amputation and the method of Antyllus in the treatment of aneurysm.

Sir William Mac Cormac is discriminating in his praise for he shows that Hunter was inaccurate even to error in his essay on venereal disease, but that his treatises on inflammation and on gunshot wounds were truly epoch-making, and justify the estimate of Buckle, who places Hunter amongst the great masters of organic science, Aristotle, Harvey, and Bichat. After alluding to the utility and excellence of the Hunterian Museum, as it is fostered by the College of Surgeons of England, and paying a tribute of respect to the work of Lister, Sir William Mac Cormac ended with this fine testimony to Hunter's worth: "That of all the great minds which have illuminated the scientific world and guided its destinies, John Hunter's is the one which first directed surgery into the pathways of science, and, dying, left to surgeons a future in the memory of his past. He is the one great man without whose aid it is impossible to imagine surgery all that it now is; we cannot take his influence away and yet retain all that we now possess. Our science might have spared some other workers, but it could not have become the science we know without John Hunter."

DIPLOMAS AND DEGREES FOR OPTICIANS.

Our attention has recently been drawn to the regulations not long since prescribed by the Worshipful Company of Spectacle Makers under which opticians and their assistants may be admitted to the guild and receive the diploma of membership of that Company on passing the required examination, and we think it may be desirable briefly to refer to the objects which the Company have in view, and the consequences which may result from the grant of the diplomas in question.

The Spectacle Makers Company in their prospectus state that it is the object of the Company to advance the status and knowledge of the optician, and to reassociate with the guild all who possess the necessary technical ability, and they accordingly prescribe a theoretical and practical examination to be passed by candidates approved by the Optical Committee of the Company on the recommendation of two well-known members of the craft.

Then follows a syllabus of the examination, which prescribes arithmetic and algebra, trigonometry, a simple knowledge of the construction and uses of instruments for measuring temperature, atmospheric pressure and moisture, the elementary laws of light, refraction, index of refraction, refraction as applied to lenses and prisms, the elementary theory and construction of optical instruments, and then the following: General anatomy of the human eye, the course of light passing through the media of the eye alone and modified by lenses, cylinders and prisms, hypermetropia, myopia, astigmatism, presbyopia, instruments commonly used for determining the refraction of the eye, trial lenses, test types, astigmatic chart, the optometer, the principle of the ophthalmoscope, the theory of retinoscopy, and in addition practical work in visual optics. The revised syllabus issued in January, 1899, omits, it appears, "the theory of retinoscopy," and makes other modifications, but substantially the examinations are to be of the same character.

The requisite knowledge for passing such an examination as that above referred to may, it is true, be deemed desirable in order to effect the objects which the Company presumably have in view of promoting a higher standard of excellence in the mechanical skill of a maker or vendor of optical instruments, or at any rate as has already been suggested as only sufficient to enable the optician to determine when the assistance of the skilled surgeon may be required; but, on the other hand, it may be contended that the acquirement of a diploma after passing such an examination may be deemed sufficient to empower and authorise its possessor to prescribe for and treat cases of defective vision and other diseases of the eye.

The diploma conferred, and proposed to be conferred, by the Spectacle Makers Company on its Fellows is in form extremely simple, that is to say, it is merely a certificate to the effect that the candidate has been admitted to the freedom of the Worshipful Company of Spectacle Makers, and having been approved by the examiners and the Optical Committee, is thereby granted the Diploma of Fellowship by order of the Court of the Company.

It will be observed that this diploma does not confer or purport to confer any degree in ophthalmic surgery, nor, indeed, would the Company have a shadow of legal authority for adopting such a course; but notwithstanding this there is ample scope for the apprehension which has already been expressed that if the Company is allowed to continue to hold the examinations referred to and to grant its diplomas, serious questions may arise as to whether or not there is an infringement of the provisions of the Medical Acts. This will appear from the following advertisement which we take from the London *Daily Mail*:

> ———— F.S.M.C., Sight Specialist, Certificated Optician by Examination. Mr. ————'s treatment of defective eyes is entirely successful; headache, neuralgia, pain in the eyes due to eye strain permanently cured. Eyes examined, sight tested, and all information free of charge.

The practice here indicated is altogether inconsistent with the avowed objects of the Company, and the qualification conferred by the examination in question does not authorise members of the guild to undertake the treatment of diseases, which is the function exclusively of the legally qualified medical practitioner.

We would suggest that if the Spectacle Makers' Company, as they profess, are simply desirous of advancing the status and knowledge of the optician in the proper sense of the term they will do well closely to scrutinise the conduct of those to whom the diploma is granted, and in case of anything being done which may reasonably be deemed to be an infringement of the Medical Acts promptly to withdraw the diploma. Otherwise we have no hesitation in saying that the examination held and diplomas granted might afford a colourable pretext for the unqualified practice of ophthalmic surgery, and would necessarily lead to measures being adopted in order to prevent the issue of any such diplomas in future.

The user of the letters F.S.M.C. coupled with words which clearly imply the practice of ophthalmic surgery affords ample reason for having the case brought to the attention of the General Medical Council. We have before expressed the opinion that the objects of the Company are in themselves most praiseworthy if confined to their proper and legitimate sphere, but this must on no account be exceeded.

In justice to the Company we must not omit to note that in the revised regulations issued in January, one of the conditions imposed on holders of diplomas of the Company is the following: "That he will not publish any advertisement unfair to fellow craftsmen or misleading to the public, and especially will not use or advertise this diploma in any way which would lead the public to infer that it conveys medical qualifications." This is a step in the right direction, and if the provision is enforced in its integrity will go far towards removing the apprehensions which have arisen. At the same time the provision should be extended to meet the case of any member or Fellow of the company directly or indirectly engaged in the practice of ophthalmic surgery.

While on this subject, we would refer to a diploma purporting to be granted by the Philadelphia Optical College which certifies that the person named has completed the prescribed course of instruction, and has passed a most satisfactory examination in the theory and practice of refraction; is duly qualified to scientifically correct the errors of refraction of the human eye, and is entitled to the highest honours the College can bestow, and by virtue of the College Charter he is thereby declared a Doctor of Refraction, "Ref. D."

With regard to diplomas of this kind we have no observations to make beyond this—that the public should be warned that the holders are not qualified to practise ophthalmic surgery in this country, and that those who do so and use the degrees purporting to be conferred on them may render themselves amenable to the penal provisions of the Medical Acts.

MOSQUITOS AND MALARIA.

The history of the theory that there is a connection between mosquitos and malaria is interesting, and would be curious did not the annals of science afford many parallels. The theory appears first of all to have been thrown out by Crawford, who published a paper on the Mosquital Origin of Malarial Disease in the *Baltimore Observer* as long ago as 1807. Nobody seems to have revived it seriously until 1883, when King published in the *Popular Science Monthly* a paper entitled Insects and Disease, Mosquitos and Malaria. Still, it made little way, or, rather, lay dormant, until Manson, by a really brilliant piece of inductive reasoning, showed in his Gulstonian Lectures of 1896 that the natural history of the disease and the life-history of the mosquito afforded grounds for looking upon the hypothesis as reasonable. He also indicated the lines upon which research to settle the question should be conducted. The admirable work which Major Ronald Ross of the Indian Medical Service has since done on these lines is well known to our readers, for his papers and reports have been for the most part published in our columns. Dr. Manson gave an account of the results of the research down to last July in an address in the Section of Tropical Medicine at Edinburgh, which was published in the British Medical Journal of September 24th, 1898. In another column we give the facts of the latest report which Ross has issued, containing full details of experiments more briefly communicated to the Section at Edinburgh.

M. Laveran, the discoverer of the hæmatozoon of malaria, who has for some time shown that he is impressed by the weight of the evidence in favour of the mosquito theory, brought the subject before the Académie de Médecine on January 31st, when he paid a warm tribute to the excellent work done by Ross. His communication took the form of a report on Ross's paper, and in introducing the subject he said that the hypothesis that the hæmatozoon of malaria might probably exist outside the human body as a parasite of mosquitos was at first received with much scepticism, but had gradually made its way, and was now accepted by most writers on malaria. Manson in England, Koch in Germany, and Bignami and Grassi in Italy had all published very interesting observations on the point; but it is, he said, "the patient researches of Ronald Ross which have put beyond the range of doubt the part that mosquitos play in the complicated evolution of the hæmatozoon of malaria and of the endoglobular hæmatozoon of birds, which is very nearly allied to malaria."

M. Laveran said that he had been for some years in correspondence with Ross, from whom he had received histological specimens showing the transformation of the hæmatozoon in mosquitos. "I can, therefore," he said, "bear witness to the admirable perseverance which our distinguished *confrère* has shown in the study of this difficult question, and to the exactness of his observation." M. Laveran then traced the course of Ross's researches since 1895, and said that in their course he had discovered a series of very interesting facts. Ross had been the first to observe the transformation of the hæmatozoon of malaria in certain mosquitos; he had been the first to see, and to describe with precision, the transformations of the proteosoma of birds in the digestive canal and body cavity of mosquitos. Finally, he had succeeded in infecting healthy birds by causing them to be bitten by mosquitos which had fed on diseased birds.

M. Laveran then pointed out that further investigations were particularly required with regard to the following points: (1) The manner in which the proteosoma introduced into the stomach of mosquitos becomes transformed into the pigmented spherical bodies which are found after thirty hours in the substance of the stomach wall. (2) The mode of formation and the nature of the black spores and the part which they play. (3) The mode of formation and the structure of the germinal threads. (4) The determination of the species of mosquitos which act as hosts. (5) The verification of the theory that mosquitos play the same part in transmitting the hematozoon to man as Ross has shown they play in carrying a similar parasite to birds. M. Laveran observed that Bastianelli, Bignami, and Grassi had followed the development of the crescentic bodies in the intestines of mosquitos which had sucked the blood of patients suffering from Italian summer-autumn fever, and that the changes observed were precisely those described by Ross in the case of the proteosoma. Finally Bignami recently succeeded in giving an individual malaria by exposing him for several consecutive nights to mosquitos obtained from a malarious district.

It was not, M. Laveran continued, surprising having regard to the great difficulty of these researches that an isolated observer working as Ross did, often under defective conditions, had not succeeded in solving all these problems; but, thanks to his discoveries, it might now be hoped that it would be easier to elucidate the remaining questions, since investigators had been put on the right road, and on all sides were beginning to verify and to complete Ross's researches. In conclusion M. Laveran sincerely congratulated Major Ross on the important contribution that he had made to the history of the evolution of the parasite of malaria outside the human body, and the Academy adopted a special vote of thanks to him for the interesting communication which he had addressed to it on the subject.

Professor Koch also has recently issued a report on the results reached by the German Commission which spent last August and September in Italy in the study of malarial disease. Professor Koch was the head of the Commission, and the other members were Professors Pfeiffer and Kossel.[1] The subjects to which the Commission specially directed their attention were: (1) The relationship of the different forms of malaria grouped together under the name of *febbri estivo-autunnali;* (2) the connection between Italian and tropical malaria; and (3) the etiology of malaria, especially in reference to its transmission by blood-sucking insects.

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[1] *Deut. med. Woch.*, February 2nd, 1899.

With regard to the first point, Professor Koch reports that the Commission came to the conclusion that the *febbri estivo-autunnali*, though they could be divided clinically into several varieties, were all caused by a single form of parasite. Cases newly developed were all of the same tertian type, and it was only when their course was interfered with by the action of quinine or of a naturally-acquired immunity that they became quotidian and finally irregular.

With regard to the second point, the opinion is expressed that there is no essential difference between the malaria of Italy and that of the tropics. Distinctions reported by Italian observers were shown by improved methods of research to be artificial. This Professor Koch considers to be a great step in our knowledge of malaria.

Light was also thrown on the third point. It had been assumed by some that the so-called semilunar forms and the flagellated bodies derived from them were degenerated forms of the malarial parasite, mainly on the ground that they did not take on a chromatin stain—a sure indication that the reproductive powers of an organism have been lost. Owing to improvements in Romanowsky's staining method, however, it was discovered, first, that there were chromatin bodies in the semilunar forms; and, secondly, that the so-called flagella contained chromatin, and were really analogous to spermatozoa.

Koch was able to recognise in Italy the parasite (proteosoma) in birds, the development of which Ronald Ross has described. He was able to confirm Ross's statement that after the blood infected with proteosoma has reached the stomach of the mosquito, a number of coccidia-like bodies make their appearance, and that within these spores develop, some of which ultimately reach the poison-salivary glands, whence they are injected into the victim's skin.

Professor Koch and his colleagues were thus able completely to confirm Ross's observations, and they express the opinion, founded on the close resemblance of the malarial parasite to the proteosoma, that it is probable that the two have a similar life-history. Ross's work is therefore, they conclude, of the greatest value as a guide to future workers in the field of human malaria.

The report points out that the city of Rome itself, though it lies in the midst of a wide expanse of malarious country, is nevertheless (at all events as far as the central part is concerned) free from malaria. This immunity cannot be due to its water or food supply, for its water, vegetables, and fruit come from malarious districts. In these parts of Rome, however, in which large gardens provide a habitat for mosquitos, there malaria is found.

Koch mentions incidentally that certain cases of malaria in which quinine—from a fear of blackwater fever—was contraindicated, did very well on methylene blue. Some of the cattle of the Campagna were examined, and it was found that those of them which suffered from Texas fever were infested with the same species of tick which produces Texas fever in East Africa and in Texas itself.

The confirmation of Ross's work by an observer so experienced as Koch, and the high praise accorded to it by Laveran, will, we venture to expect, encourage the Indian Government to afford still further opportunities and facilities to this distinguished member of the Indian Medical Service.

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OVERSEERS' ORDERS FOR MEDICAL ATTENDANCE.

The liability of guardians to pay district medical officers for attendance on urgent orders granted by overseers is a subject which for many years past has occasionally been the cause of great trouble and annoyance to Poor-law medical officers; and though the question has often been discussed at some length, we are not aware that any legal decision has ever been given upon which reliance could be placed, and the law has consequently remained somewhat doubtful on the point at issue. The question is whether a Board of Guardians, whose duty it is to administer relief, medical and other, in all cases of proved destitution, when proper application is made for it, are bound by an order given for medical attendance in urgent cases of illness by a parochial overseer, who, though doubtless empowered and required by law to relieve all urgent cases of destitution, is technically not an officer of the guardians, and not subject to any directions he may receive from them. This appears to be the reason why Boards of Guardians so frequently object to meet the expense of orders for relief of even urgent cases when issued by parish officials. To the ordinary mind this highly technical objection to paying for services officially requisitioned appears to be absolutely monstrous, and we are glad to find that it was thus characterised by the judge. A short time ago,[1] we were asked to give an opinion on a case of this description in which the guardians refused to pay the fee claimed by a district medical officer for attendance on an urgent case of midwifery on the order of the overseer of the parish. To this inquiry we replied that we considered the guardians were liable for the fee claimed; and it is satisfactory to know that this opinion has since been confirmed by the county court. At Crediton, before His Honour Judge Woodfall, Dr. C. Haycroft, a district medical officer, sued the guardians of the Crediton Union for the fee of 10s. 6d. for attending an urgent case of midwifery, the order for such attendance having been given in writing by a parochial overseer to attend "at once." These latter words of course implied urgency, and this note of urgency is a point of importance in the matter, as it is generally conceded that only in urgent cases can the overseer properly grant relief. That this order was properly granted could not possibly have been doubted by the medical officer when it was presented to him, and it is a curious circumstance in the case that he had two years previously attended the same patient on a similar order when in a similar condition, and had been paid for that attendance by the guardians without any dispute. The same Board now denied their liability, on the ground that the order ought not to have been given by the overseer, and that the medical officer should have satisfied himself as to the destitution of the patient before he attended the case in his official capacity, and that as he had omitted to do this his claim for payment was against the overseer who granted the order, or against the husband of the patient. This defence by the guardians does not appear to have impressed the judge in their favour, as after hearing their legal representative at some length, he did not hesitate to describe any such contention as "monstrous," and added that if the plaintiff, after receiving the overseer's order, had, instead of giving immediate attention to what was represented as an urgent case, adopted the plan suggested of going about to make inquiry as to the financial position of the patient, and death had in the meantime occurred, he might have found himself in a

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[1] British Medical Journal, January 21st, 1899, p. 187.

serious position. The judge considered that the medical officer was bound to obey the order as issued by the overseer, and that it was no part of his duty to inquire as to the destitution of the patient. Judgment was at once given for the plaintiff, with costs on the higher scale. Application was made for leave to appeal, which the judge granted. It may at first sight be difficult to see why it should have been necessary to take legal proceedings for the recovery of the fee in this case, as the regulations of the Local Government Board would appear to be sufficiently explicit to justify them in ordering the guardians to pay the fee which Dr. Haycroft claimed.[2] We do not know whether he referred this question to the Local Government Board, but unfortunately the attitude of the Local Government Board, when somewhat similar cases have in the past been referred to them, has not been such as to encourage further applications. After this decision, against which we cannot think any appeal is likely to be successful, we hope that similar litigation will become unnecessary, and that the Local Government Board will relieve medical officers of the disagreeable duty of having to sue their employers for fees in such cases.

COMPANY PRACTICE.

THE Companies Acts Amendment Bill has been introduced and passed its second reading in the House of Lords, but it was explained by Lord Dudley that it is so far the same measure as that which had been before the House in a previous session, and it has now been referred to a small Select Committee. Hence it does not as yet contain any clause bearing upon that class of companies which are formed for the infringement of the Medical and allied Acts, and until the new Select Committee reports we shall not know what measure of success has attended the efforts of the General Medical Council through its Committee to procure the insertion of some clause providing a remedy for the existing abuses. The Select Committee of the House of Lords has lost no time, having already within a few days of its appointment held a meeting, but its deliberations were conducted in private; the publication of its report will be awaited with much interest. It is an instructive fact that several new companies which appear to be of this type have been incorporated quite recently, and it appears that the existence of this loophole is becoming more widely known to the class who seek to avail themselves of it.

THE CHAIR OF PATHOLOGY AT CAMBRIDGE.

Dr. GERMAN SIMS WOODHEAD has been elected Professor of Pathology in the University of Cambridge in succession to the late Dr. Kanthack. Dr. Woodhead, who was born in 1855, and graduated at Edinburgh in 1878, has become very well known to the medical profession during the eight years for which he has held the post of Director of the Laboratories of the Conjoint Board of the Royal College of Physicians and of the Royal College of Surgeons in London. During his tenure of that office he has not only added to a scientific reputation already high, but he has proved himself to be an admirable organiser, and a master capable of inspiring others with some of the enthusiasm and single-minded devotion to science with which he is himself so largely endowed. There is every reason to feel confident that under his direction the school of pathology in Cambridge will grow in importance, and that Professor Woodhead will be able to bring to perfection the work which his predecessors Professor Roy and Professor Kanthack were, in the chances and changes of this mortal life, only permitted to outline as in a sketch.

NOTIFICATION IN DUPLICATE.

THE question whether a consultant ought to notify a case seen by him along with another practitioner is one which will be answered in different ways under different circumstances. As the law at present stands, if he does not he runs the risk (should the practitioner in attendance fail to do so) of being mulcted in penalties. This is of course a somewhat remote contingency, for the authority would naturally proceed in the first instance against the man actually in attendance. We do not suppose that the 2s. 6d. for the certificate often enters into the consideration of the certifier. Where a change of doctor has been effected the matter is slightly different. It is in this case less unusual to ensure the carrying out of the Act by the sending of a second notification. Compared, however, with the number of cases notified, the number of duplicate fees demanded is trifling. It seems hardly worth legislating about. We see, however, from the *Liverpool Mercury*, that the matter has engaged the attention of the Wrexham Rural District Council. At the last meeting of that body Mr. Cromar moved to memorialise the Local Government Board that it was the opinion of the District Council "That after a case of infectious disease has been notified to the medical officer of health no further notification of the same case should be paid for, but returned to the medical practitioner with an intimation that a certificate has already been received." A further reduction of fees was to be effected by the next resolution, which read as follows: "That the fee of 2s. 6d. per case in private practice should only be paid for the first case occurring in any one house, and that the fee for subsequent cases in the same family should not exceed 1s. per case." It is contended that the notification of subsequent cases occurring within a month of the first is not necessary, inasmuch as when one case has been notified it is the duty of the sanitary authority to keep an eye upon the house, and that the duty of the occupier to notify the new cases remains. This is an example of the many attempts made to obtain a medical opinion for nothing. The authority needs to know the nature of the later cases, and accurate information on this head is well worth the small fee at present paid for it.

CENSURE ON A MIDWIFE.

THE Honorary Secretary of the Lincoln Maternity Society, Mrs. Bond, considers that the report of the inquest at Lincoln to which attention was drawn in the BRITISH MEDICAL JOURNAL of February 4th, and some comments that have appeared in the public press "are calculated to convey a very erroneous impression about Nurse Southwell and the benevolent society by which she is employed." She consequently sends us a letter which she requests us to print, but as it was written on February 2nd, and published in the *Lincolnshire Echo* before the report of the case appeared in the BRITISH MEDICAL JOURNAL, it was evidently not written in reply thereto, nor is it in any sense an answer. The midwife's statements to the coroner were so inculpatory, that comment on her conduct in our columns was, we felt, quite unnecessary; and we confined ourselves to the remark "that any Midwives Act ought to contain a clause distinctly forbidding a midwife, under penalty, to give a certificate as to the death of any infant or of stillbirth." The justice of that observation is enforced upon us by cases which frequently occur in coroners' courts; and the Midwives Bill, as amended by the Parliamentary Bills Committee, has a clause forbidding a midwife to give such certificates. Mrs. Bond states that "the Lincoln Maternity Society employs none but thoroughly trained nurses, who have knowledge enough to distinguish those simple cases which they may safely treat themselves;

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[2] The terms of Article 206 of their General Consolidated Order, dated July 24th, 1847, were as follows: "*Duties of District Medical Officer.*—To attend duly and punctually upon all poor persons requiring medical attendance ...... *whenever* he may be lawfully required to furnish such attendance or medicines, by a written or printed order of the guardians, or of a relieving officer of the union, *or of an overseer.*"

and in any other cases *they immediately summon at the cost of the Society* (our italics) the assistance of a medical man. Again, "our Society supplies them" (that is, the poorest) "with medical assistance whenever it is needed, without any addition to the small fee paid in the first instance for the services of the midwife." But the midwife Southwell did not summon a medical man, and for the failure to do so she was censured by the coroner, at the instance of the jury, who added a rider to their verdict, that "the midwife had exceeded her duty, and ought to be censured." So far Mrs. Bond deals in generalities. The last part of her letter is more to the point. She states that if a solicitor had watched the case on behalf of the nurse, it would have appeared (1) "That she recommended such treatment for this immature child as a medical man suggested at the inquest." But this is beside the question; she considered the case hopeless, and told the parents it was not necessary to have a medical man; hence the censure passed upon her by coroner and jury. (2) "That while her experience led her to think that the child could not survive, yet she advised the father to send for a medical man to see it." But, according to the report of the inquest, the exact reverse of this was stated by the father of the child, and the midwife in evidence strenuously defended her conduct to the coroner when he commented on its wrongness. (3) "That when he" (the father) "neglected to do this" (send for a medical man to see the child) "and the child died nine days after Nurse Southwell's attendance upon the mother had ceased, she simply wrote down what she knew about the matter in order to help the parents in their trouble, and she by no means presumed to give such a 'certificate' of the cause of death as could only be given by a qualified medical man." We fear this statement is scarcely borne out by the report, which states that "the midwife herself certified the death to the registrar, who reported the matter to the coroner." Altogether, it would appear that the advocacy of Mrs. Bond has not improved the case of the censured midwife; it has rather drawn fresh attention to her *lâches*.

WATER GAS.

Attention has been directed on many occasions in these columns to the dangers which may arise from the use of water gas as an illuminant, whether alone or mixed with ordinary coal gas. Just a year ago the Home Secretary appointed a Departmental Committee to inquire into the manufacture and use of water gas and other gases containing a large proportion of carbonic oxide. Lord Belper was the Chairman of the Committee, and among the members were Dr. J. S. Haldane, F.R.S., of Oxford, Dr. H. F. Parsons, Assistant Medical Officer of the Local Government Board, and Professor Ramsay, F.R.S., of University College, London. This Committee has now presented its report, and in view of the fact that a large increase in the use of water gas is to be expected in several localities, and that the use of pure carburetted water gas is contemplated in some places, they recommend that its use and manufacture should be regulated by legislation. In the first place, they recommend that the distribution for heating and lighting purposes of any poisonous gas, which does not possess a distinct and pungent smell, should be made illegal, and that all persons applying for statutory powers to make and distribute gas should be required to state the kind of gas they propose to sell, whether ordinary coal gas, carburetted water gas, plain water gas, or other variety of gas, separately or mixed. It is further recommended that it should be reckoned obligatory to give public notice of any proposal to distribute any kind of water gas, and that as long as there is any water gas in the gas supply, the fact should be stated on every demand note. Power, it is thought, ought to be conferred upon a central department to make regulations enforceable by penalties limiting the proportion of carbonic oxide in the public gas supply at night, and it is suggested that the limit should be 12 per cent. It is proposed also that power should be given to local authorities to make by-laws, subject to the approval of the central department, regulating the hours during which carbonic oxide may be added and the proportion permitted, the character of the gas burners and fittings, and the testing of the same. In conclusion, the Committee draws attention to the insufficiency and untrustworthiness of the statistics relating to particular causes of mortality which can be gathered from returns of coroners' verdicts, and though the matter is outside the terms of the reference to them, they recommend strongly that some steps should be taken to secure that these verdicts should lend themselves more readily to clear classification by the Registrar-General; and, in particular, that in every case where the coroner is in possession of a medical certificate of death, or where medical evidence has been taken at the inquest, a copy of that certificate or an abstract of that evidence should be appended to the coroner's certificate when sent to the Registrar-General.

VACCINATION STATIONS.

The health authorities of Liverpool and the various select vestries have independently petitioned the Local Government Board to exercise its discretionary power to retain the vaccination stations in Liverpool. These authorities are of opinion that there are certain exceptional circumstances which make it undesirable to abolish the stations in Liverpool, the most important being the existence of a great floating population, and the fact that the people have become thoroughly used to take their children to the stations, and do not understand the new regulations. Liverpool is one of the best vaccinated communities in the country, and there is practically no opposition to the practice of vaccination, only two or three "conscientious objectors" having applied for exemption since the Act of 1898 was passed. The prosperity of the city is entirely dependent on its foreign trade, and it would be seriously endangered if anything approaching an outbreak of smallpox occurred. As an instance of the difficulty met with in the attempt to carry out domiciliary visits for the purpose of performing vaccination, it is related that on a certain date a vaccination officer notified fifteen families that he would call to vaccinate the children on a certain day, but he found only three at home. The Local Government Board has, however, written to the health authorities declining to recognise the existence of exceptional circumstances in Liverpool, and refusing to sanction the continuance of the vaccination stations.

CONFERENCE ON RIVERS POLLUTION.

A Conference on the subject of Rivers Pollution and the Protection and Purification of Water Supplies was held under the auspices of the Sanitary Institute at the Parkes Museum on February 14th. The chair was taken by Sir Francis Sharp Powell, Bart., M.P., Vice-President of the Institute, and among those present were Sir John Dorington, M.P., Mr. Hobhouse, M.P., Sir John Hibbert, Chairman of the Lancashire County Council; Mr. Miles Gaskell and Dr. Maclean Wilson, of the West Riding Rivers Board; Mr. R. A. Tatton, Chief Inspector, Mersey and Irwell River Boards; Mr. W. Naylor, Chief Inspector of the Ribble Joint Committee; Mr. Willis Bund, Chairman of the Worcestershire County Council; Major Lamorock Flower, of the Lee Conservancy Board; Dr. H. E. Armstrong, Medical Officer of Health for Newcastle, and other medical officers and engineers especially interested in the subject. A resolution was passed on the motion of Dr. Childs, seconded by Dr. E. Sergeant, M.O.H. Lancashire, recommending that the officers of local sanitary authorities should have free access for the purposes of inspection and taking of samples to any land and premises from or through which water is supplied for domestic purposes to the public in their district, and that such inspection should be made periodically and the results reported. A second resolution, proposed by Dr. G. Reid, M.O.H. Staffordshire, and seconded by Dr. J. C. Thresh, M.O.H. Essex, recommended that the authorities should be required to make regular inspection and examination of the waters supplied by them and report the results to the local authority; while a third resolution, proposed by Mr. Wynter Blyth, M.O.H. Marylebone, and seconded by Lieutenant-Colonel Jones, Aldershot, recommended that the wilful or negligent pollution of any water supply should be regarded and treated as a penal offence. A further resolution recommended the appointment of special authorities representative of the interests involved for each gathering ground or group of gathering grounds to have general care and supervision of the waters within each watershed, with powers to take prompt measures to prevent such pollution and to arrest detected pollution. Finally a resolution was adopted approving the Rivers Pollution Prevention Bill to be introduced by Sir Francis Sharp Powell, M.P. The resolutions are to be forwarded to the Local Government Board, and we venture to express the hope that the Government will see its way to give facilities for early legislation. We have already on several occasions drawn attention to the importance of giving power to sanitary authorities to enter land from which the water supplied to their districts is taken, or through which it passes in order to ascertain that it is not being polluted by careless owners. There is a story of the medical officer of health of a large county borough, who, having occasion while on a short holiday to enter an inn, found that the drainage of the establishment went into the water supply of his own town. The horror of the zealous official may be imagined, but it is clear that the discovery of such defects should not be left to chance, and that authorities should have the power of safeguarding the purity of one of the first necessaries of life.

DEATH OF "CAVENDISH."

THE death is announced of "Cavendish," the well-known authority on whist, whose handbook on the subject is familiar to all whist players. Whist is a game so popular among doctors that it was appropriate enough that a member of the medical profession should have been one of the chief authorities on the game. Mr. Henry Jones was the eldest son of a well-known practitioner in Soho Square, and was himself a Member of the Royal College of Surgeons of England, and a Licentiate of the Society of Apothecaries. Though never a first-rate whist player, he began to play early in life, for his father was a devotee, and the son, while still a young man, wrote a small treatise on the game anonymously; "Cavendish" soon became an authority, and Mr. Jones had the pleasure of hearing that authority quoted by his father when some dispute arose as to a point of practice. It was, indeed, some years before the name of the author became generally known. Mr. Jones retired from practice in 1869 in order to devote himself to literary work, but down to the time of his death he was a member of the Court of Assistants of the Society of Apothecaries of London. He died on February 10th, at the age of 68.

THE VICTORIA HOSPITAL FOR CONSUMPTION, EDINBURGH.

AN important step in advance has been taken by the Victoria Hospital for Consumption, Edinburgh. The acting Committee have succeeded, after prolonged negotiations, in arranging for the purchase of the Craigleith property, on which the hospital, at present held only on lease, stands. The purchase includes a park which adjoins the other, making in all close on sixteen acres. As those who have visited the hospital know, the property is well situated, and its eligibility for the purpose intended has been well tested during the past five years. The parks lie delightfully to the sun, on a gentle slope, and are sheltered in most directions by belts of noble old trees. The entrance to the grounds is situated less than a mile and a-half to the north-west of the west end of Princes Street. In the immediate neighbourhood of the property are several open spaces of considerable size which cannot be built on, so that the amenity of the hospital is ensured for many years to come. The Committee propose to take advice immediately regarding the best lines on which to proceed with extension of the hospital.

THE PARENTAL FORM OF FILARIA PERSTANS.

ONE of the Congolese patients suffering from sleeping sickness whose case was described by Dr. Manson in the BRITISH MEDICAL JOURNAL of December 3rd, 1898, page 1672, died recently. For two months previously he had been confined to bed and almost constantly asleep. The immediate cause of death was hyperpyrexia, which rapidly developed. The details of the *post-mortem* examination will be published in due course; but one interesting fact has already been established—namely, that the filaria perstans of West Africa is the same species as the blunt-tailed filaria of British Guiana. A mature filaria was found by Mr. O'Neill, Charing Cross Hospital, in the connective tissue behind the abdominal aorta; on comparing it with specimens sent from British Guiana by Dr. Daniells, it was found to correspond with these in every detail. The nematode worm described by Dr. Daniells in the BRITISH MEDICAL JOURNAL of April 16th, 1898, page 1011, is therefore the mature form of filaria perstans, a parasite which is now proved to be endemic in tropical America as well as in tropical West Africa.

THE LONDON COUNTY COUNCIL AND CREMATION.

WE understand that some of the friends of cremation on the London County Council have under consideration a scheme which, if carried out, will provide London with a place for cremation at once accessible and well situated having regard to its purposes. In the early part of last year the Council passed the following resolution:

> That the Parliamentary Committee be asked to take measures with the view of obtaining power for local authorities under the Metropolitan Burials Act to provide for cremation.

Upon this the Committee prepared and the Council approved a Bill, entitled, the Metropolitan Burial Boards (Cremation) Bill, but, owing to the pressure in Parliament of other business, no progress was made with the measure during the session of 1898. Fearing the same fate during the present session, the Parliamentary Committee reported to the Council at the meeting last week that the Bill be not further proceeded with. Thanks, however, to the vigilance of Sir Arthur Arnold and the wide feeling of approval of the purposes of the Bill which appears to exist in the Council, the report was referred back *nem. con.*

EPIDEMIC INFLUENZA.

THIS is the tenth consecutive winter during which epidemic influenza has prevailed in Great Britain. The epidemic began, it will be remembered, in October, 1889, after a period of immunity which had lasted for nearly forty years. It was hoped at that time that after prevailing for one, two, or at most three years, the epidemic would pass away as had been observed on previous occasions, but this anticipation has been to a great extent falsified, and the annual recurrences, though they have not been so extensive as during the first two years, have been sufficiently widespread to cause very serious inconvenience on many occasions, very distinct increase in the death-rate, and, as is generally believed, a notable accession to the number of chronic maladies, especially of the nervous system, which are characteristic of the present generation. There has been this year a considerable epidemic in the eastern parts of the United States, and there is at the present time a very severe epidemic both in Sweden and in Norway. More recently the prevalence of the disease in epidemic form has been reported in various parts of the south and west of England, and a severe outbreak has occurred on the training ship *St. Vincent* at Portsmouth. The number of cases rose suddenly within two days from 20 to 70, and the most severe were transferred to the wards of the Haslar Hospital, which are already stated to be very full. Although influenza has recently been somewhat prevalent in several parts of London, the number of deaths directly attributed to this disease had, until last week, shown but little tendency to increase. The fatal cases of influenza registered in London, which had been 20, 21, and 22 in the three preceding weeks, suddenly rose to 50 during the week ending Saturday, February 11th, a higher number than in any week since March, 1898. Of these 50 deaths, 7 only were of persons under 20 years of age, 7 of persons aged between 20 and 40 years, and 17 of persons between 40 and 60; while 19 were of persons aged upwards of 60 years. The disease appears to be most prevalent in North and South London, especially in Islington, Hackney, and Brixton.

PHTHISIS IN LUNATIC ASYLUMS.

AT the last meeting of the Governors of the Richmond Lunatic Asylum, Dublin, Dr. Conolly Norman read a report from the Inspector, Dr. Courtenay, recommending the providing of means of isolation for cases of consumption. This was particularly necessary in an asylum, because there was among the insane a particular inability to resist the infective action of the disease. Dr. Norman said it was indispensable to provide for each sex an isolation wing. This recommendation was adopted. The report as to the dietary and the management of the patients was very satisfactory. The pathological department is well equipped, and the scientific work ably carried out by the pathologist, Dr. Rambaut.

WORKHOUSE SCHOOLS.

A GENERAL order of the Local Government Board embodying a series of new regulations in respect of workhouse schools has been issued. It is provided that, unless the Board shall otherwise direct, no child under the age of 3 years, and no child suffering from any contagious affection of the scalp, skin, or eyes, shall be admitted, and that orders of admission shall be subject to the result of medical examination. The order directs further that the children in the schools shall be medically examined at least once a month, and those suffering from such affections separated from the others. The order, which is to come into operation on March 26th, will apply to the Poor-law Unions of Hackney, Holborn, Mile-end Old Town, Poplar, St. George-in-the-East, St. Leonard Shoreditch, St. Marylebone, St. Mary Islington, St. Mary Lambeth, St. Matthew Bethnal Green, St. Pancras, Strand, and Westminster.

STRIKE OF STUDENTS AT LIEGE.

A STUDENT strike has recently occurred in the University of Liége. The students of the Medical Faculty, overburdened with lectures and clinical visits, together with an examinational programme of inordinate length and variety, have risen in revolt. The Rector, Professor Masius, was hissed at his opening clinical lecture, and retired amid a storm of hooting. Professor von Winiwarter has taken the part of the students, and is correspondingly popular. The immediate cause of the strike was that a very hard-working student, who had already given proof of high ability, was refused admission to an examination because he had not put in the prescribed number of appearances at lectures. Of 90 students no fewer than 80 have been threatened with academic pains and penalties of a more or less serious nature if they are not more regular in their attendance.

AN INTERNATIONAL ANTIVACCINATION CONGRESS.

UNDER the auspices of the German Antivaccination League, an international conference is being organised. It is to be held in Berlin on June 18th, 19th, and 20th. There is to be a large mustering of the clans who have sworn a feud against Jenner. The occasion is to be graced by the presence of Mr. William Tebb, who will appear at the head of a number of his henchmen like a highland chieftain of old "with his tail on." Other prominent antivaccinists from Sweden, Switzerland, Holland, and the United States are expected. Italy will be represented by Professor Ruata, of the University of Perugia. The Imperial Health Bureau is to be invited to send representatives. The vaccination question is to be discussed from the medical, legal, and philosophical standpoints, "in a practical manner and with all publicity."

AN INTERNATIONAL CONGRESS OF MEDICAL ETHICS.

IT has been arranged that among the Congresses to be held in Paris in 1900 there shall be one entitled "International Congress of Medical Ethics." The Organising Committee, which recently met under the Presidency of Professor Gariel, includes among other well-known members of the profession in France, Professor Brouardel, Dean of the Paris Faculty of Medicine, Professor Cornil, member of the French Senate, Drs. Marcel Baudoin, Jules Comby, Julien De Ranse, A. Sevestre, and Jules Thiroloix. M. Léreboullet was chosen to be chairman. All communications in regard to the Congress should be addressed M. le Dr. Léreboullet, President, 44, Rue de Lille, or to M. le Dr. Jules Glover, Secretary-General, 37, Faubourg Poissonière, Paris. The regulations of the Congress and the list of the questions proposed for discussion will be published shortly.

THE Prince of Wales has accepted the office of President of the National Association for the Prevention of Consumption.

THE new poison regulations adopted by the Pharmaceutical Society of Great Britain on January 11th, and published in the BRITISH MEDICAL JOURNAL of January 14th, have received the approval of the Privy Council, and have been embodied in an Order in Council dated January 31st.

DR. T. G. RODDICK, Member of the Canadian Parliament, Professor of Surgery in McGill University, Montreal, and President of the British Medical Association in 1897-98, has been elected an Associate Fellow of the College of Physicians of Philadelphia.

MR. CHARTERS J. SYMONDS, M.S., F.R.C.S., will deliver the first Hunterian Society's Lecture at the London Institution on February 22nd, at 8.30 P.M. The subject of the lecture will be the Value of Individual Symptoms in Perforative Peritonitis, more especially in regard to Operation. Members of the profession are invited to attend.

THE Paris Académie de Médecine is about to build itself a new house on a palatial scale. The plans have been drawn by M. Rochet, and all the architects who have seen them are said to have been unanimous in declaring that the building will be one of the finest in Paris. It is expected to be completed in two years.

A *conversazione* took place at the Royal College of Surgeons, Lincoln's Inn Fields, on February 13th, when about 700 guests assembled, upon the invitation of the President of the College and Lady MacCormac, who received their friends at the entrance to the anatomical museum. The band of the Coldstream Guards played a selection of music, which was highly appreciated. Refreshments were served in the Library. The various collections of the College were objects of much interest to the company.

MEDICAL NOTES IN PARLIAMENT.

[FROM OUR LOBBY CORRESPONDENTS.]

The Midwives Bill has not had much luck this session. Through an omission to give notice of its title on Thursday evening one of its promoters lost his chance of introducing it, and securing a higher place in the list. It now stands for second reading (the first reading being purely formal) on April 12th, but as the Fire Brigades Bill and the Evicted Tenants (Ireland) Bill have precedence on that day, it has, as matters now stand, no chance of being reached. It is introduced, as last year, by the late Lord Advocate (Mr. J. B. Balfour), and backed by Messrs. De Tatton Egerton, Schwann, Heywood Johnstone, Hazell, Bonsor, Tennant, and Skewes-Cox. Unless all opposition to it is withdrawn there is no probability of the second reading being obtained this session, except under the contingency, believed to be very unlikely, of its adoption by the Government.

Vaccination has been the subject of several questions, and on Thursday last week Mr. Chaplin made a long statement on the number of unvaccinated children. He said that there was no warrant for supposing that the number of children not protected by vaccination was largely increasing under the Act of last year. The returns of the Local Government Board showed that since 1885 the total number of children unvaccinated has been steadily increasing. In 1885 the number was 136,000, and in 1898 the estimated number was 370,000. The total number of children born between 1885 and 1898 was 12,500,000, and of these 3,235,000 were not vaccinated. Out of this last number certificates of conscientious objection were granted in respect of fewer than 239,000 children up to the end of 1898. The President of the Local Government Board referred also with satisfaction to the large increase in the demand for glycerinated calf lymph, and drew from this the satisfactory assurance that vaccination was now on the increase as compared with recent years. On the same day Mr. Bartley was granted a return of the number of certificates of conscientious objection in respect of each Poor-law union and union county in England and Wales.

The Revaccination Bill which it was understood would be introduced this year will apparently not be forthcoming, as Mr. Balfour announced on Friday last that it was not the intention of the Government to bring in any vaccination legislation in the course of the present session. On the same day it was stated that all pupil teachers, and all men and boys entering the army and navy, are required to be vaccinated. The Home Secretary also announced that he had suggested that the inclusive fee for certificates of exemption should be 1s. 6d., and that he was advised that magistrates have power to reduce or remit fees in suitable cases.

Poor-law Reform, more especially as it affects old age, will be raised on February 22nd by Mr. J. A. Pease's Bill for Providing Cottage Homes for the Deserving Poor. The Bill will seek to remove selected old persons from the direct control of the Poor Law, and place them in almshouses under the control of the County Council or local authority. This is a half-way stage on the road to old-age pensions, and will receive a good deal of support; indeed it is quite possible, some members think, that the Government may adopt some such scheme as an experiment, before attempting to grapple with the more extensive and expensive proposals for the general endowment of the aged poor by means of pensions.

The Half-time System will be dealt with by Mr. Robson, who drew first place in the ballot for Private Members' Bills. His Bill, entitled Education of Children, has first place for March 1st, and seeks to raise the age of child labour to 12 years at once, and to 13 in three years' time. As Sir John Gorst some years ago supported this proposal on behalf of the Government, there are great hopes that this reform will be carried, and that this country will after this year no longer lag behind other civilised nations in its protection of the rising generation.

The Petroleum Bill introduced by Mr. Reckitt, who drew the second place in the ballot, is down for second reading on March 15th. The Bill seeks to raise the flash point from 73° F. to 100° F. as recommended by the Select Committee. As the Government is said not to take this view of the necessary legislation, but to prefer to leave the flash point unaltered and to impose regulations on the manufacture of unsafe lamps and the storage of petroleum, the Bill is sure to meet with opposition. The *Star* has recently published a ghastly catalogue of 100 victims to the low flash oil, namely, 56 in the provinces and 44 in London, during the single year 1898. The matter is therefore one which is certain to evoke a warm discussion, and much support will be given to Mr. Reckitt's Bill as the surest method of saving lives now sacrificed every week.

The Purity of Milk has recently been under the consideration of the Local Government Board, and a circular is to be sent to local authorities referring to disease in dairies and cowsheds, and especially dealing with disease of the udder of a tuberculous kind. It is sought to prevent the milk of such cows being mixed with other milk, and being sold as human food. Local authorities are also alive to this danger, and in some cases are seeking Parliamentary powers to deal with the matter. The attention of Parliament is likely to be called to the whole question of tuberculosis as affecting animals on an early day, and an important debate is expected.

The Universities Degrees Bill is third on the list for March 15th, and may therefore be regarded as not likely to pass a second reading on that day. It proposes to require all foreign graduates to put after their degrees the name of the university from which they are derived. At first sight this is a reasonable proposal enough, but one which it is thought ought not to apply to medical degrees recognised and registered by the General Medical Council. The Bill is really directed against degrees other than medical degrees, but as it would affect a large number of ministers of all denominations, teachers, and musicians, as well as medical men, it is likely, whenever it comes on, to meet with considerable opposition.

The Pollution of Rivers is, as last year, the subject of proposed legislation, but although two Bills have been introduced, and have been formally read a first time, they do not stand much chance of being carried unless the Government takes them up. It is a very large subject for legislation by a private member and as local authorities are, in many instances, the chief sinners, large central powers will be requisite to effect any general improvement. County councils are regarded by some as suitable authorities, but the jealousy which exists between municipalities and these bodies would render interference in the case of many boroughs very difficult.

The University of London, and the question of finding a new home for it, were mentioned incidentally in a question put by Mr. Hogan, which seemed to foreshadow some objection on the part of Colonial Governments to assigning any part of the Imperial Institute to the University. Mr. Chamberlain parried the question by stating that it would be premature to express any opinion until the result of a conference shortly to be held between representatives of the Government, the Imperial Institute, and the London University is known.

The Doctrine of Constructive Murder seems likely to claim some of the attention which it undoubtedly deserves. The Attorney-General, in reply to a question, said that he was fully alive to the objection to the pronouncement of the death sentence under circumstances in which there was no reasonable probability of its being carried out. It was, he said, a grave question, and the Home Secretary at a later date stated that the whole subject, which he admitted to be one of great importance, had his anxious attention.

THE UNIVERSITY OF BIRMINGHAM.—At the annual general meeting of the Patent Nut and Bolt Company held at Birmingham on February 13th, it was resolved that the Company should contribute £5,000 to the fund now being raised for the establishment of a University in the City of Birmingham.

MOSQUITOS AND MALARIA.

The Infection of Birds by Mosquitos.

Major Ronald Ross, Indian Medical Service, has forwarded to us a preliminary report on the infection of birds with proteosoma by the bites of mosquitos. The report is dated October, 1898, but the copy forwarded to us contains certain additions. The leading features in this report were described by Dr. Manson at the Edinburgh meeting of the British Medical Association, but the subject is of such far-reaching importance that we have thought it advisable to give a fuller account of the report.

The report commences by recalling the main facts of that presented in May, 1898. In this report it was shown that the proteosoma of birds, and one of the crescent-forming malarial parasites of man were capable of development in grey and in dappled-winged mosquitos respectively, and that in the mosquito the parasite was first observed as a small, oval, pigmented cell lying in or close to the outer muscular coat of the insect's stomach. The cells gradually increased in size, losing their pigment, and became protruded into the cœlom or body cavity. At the end of about a week in the case of proteosoma they reached a diameter of about 60μ or more. Major Ross considered these bodies to be coccidia, but under date December 31st, 1898, adds that this opinion "is provisional. The true zoological significance of the mosquito stage of the parasites is a difficult subject, and will be discussed in the final report."

The present report deals briefly with his later researches on the same subject, and is preliminary to a more detailed exposition which it is proposed to submit later.

Reproduction Forms of the Proteosoma-Coccidia.—The examination of a very large number of grey mosquitos fed on sparrows infected with proteosoma showed clearly that the proteosoma-coccidia, after reaching maturity (seventh day) formed two different kinds of reproductive elements, namely (1) a large number of delicate thread-like bodies, or (2) a smaller number of large black spores.

The Thread-like Bodies are from 12μ to 16μ in length, about 1μ in breadth, and flattened in the third dimension. From the middle, which contains vacuoles and chromatin granules, they taper to each extremity; and when viewed under the best conditions they are not unlike small trypanosomes, though Ross has never succeeded in detecting any certain indications of movement in them. They are closely packed in thousands within the capsule of the mother coccidium. Figures 18 and 19, reproduced here from the former report, represent two "striated" coccidia, which in reality were coccidia containing these elements. On rupturing such a body by pressure on the cover-glass, the thread-like elements can be seen pouring out in vast numbers, and floating away in the surrounding fluid.

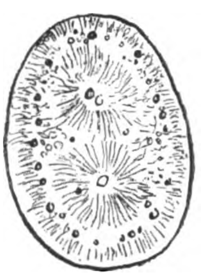


Fig. 18.—Coccidium containing thread-like bodies.

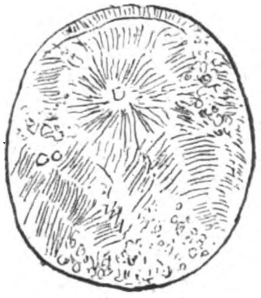
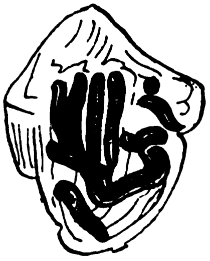


Fig. 19.—Another coccidium containing thread-like bodies.


ig. 20.—Coccidium containing black spores.

The Large Black Spores, when mature, are from 16μ to 20μ or more in length, and 2μ or 3μ in thickness. They are cylindrical, closed at the ends, and are straight, curved, sigmoid, or variously twisted. Their colour is a dark brown, they have a black contour, and they are evidently capable of resistance to outer forces. Figure 20, reproduced here from the former report, depicts several of them contained within a coccidium. It is difficult to estimate the number of them produced by each parasite, as many appear to be ejected before being fully matured. Ross has never observed both the thread-like elements and the black spores in the same coccidium. It appears likely that the hyaline cells described in the previous report produce the former, and the vacuolated cells the latter.

Escape of the Reproduction Forms.—On the eighth or ninth day—that is, shortly after the coccidia have matured and produced their reproductive elements—they burst *in situ* in the living insect, and pour those elements into the general cavity of the body, which contains the so-called blood or circulating juices. The empty capsule of the coccidium remains behind still attached to the wall of the stomach; but the reproductive elements are swept away by the blood current and distributed throughout the tissues of the mosquito. If, for example, a mosquito be killed ten days after it has fed on a sparrow with proteosoma, larger numbers of the thread-like bodies will almost certainly be found in the juices of the head and thorax, and similarly some of the black spores in almost all the muscular and connective tissues of the body.

Further Migration of the Thread-like Elements.—While examining the thread-like elements in the blood of mosquitos, Ross observed that they were frequently to be found collected within the cells of a gland in the thorax, which eventually proved to be the salivary or poison gland of the mosquito. This lies in the neck or the anterior part of the thorax of the mosquito, and consists of a number of separate lobes. The ducts of the several lobes ultimately unite and form a single main effluent. This runs up the under-surface of the head in the middle line, enters the base of one of the stylets or lancets of the proboscis, namely, the central unpaired one, called the tongue or epipharynx, traverses the whole length of it and opens at its extremity in such a manner that the secretion of the gland must be poured into the very bottom of the wound made by the piercing apparatus of the proboscis.

It is in the cells of this gland that the thread-like reproductive elements of the proteosoma-coccidia have the power of accumulating. They can be found in them in large numbers, either floating separately in the grape-like cavity of the cells, or crowded together within them in hundreds. Generally only one or two of the lobes of the gland contain these elements, the other lobes being free from them. Ross estimates that one lobe must contain many thousands.

Interpretation of these Facts.—The secretion of the gland is obviously meant to be injected into the wound made by the tongue and the other stylets. Its function is, it is contended, to check the spasmodic contraction of the torn capillaries, which would otherwise quickly stay the flow of blood into the wound. The thread-like elements in the secreting cells of the gland remain there, waiting the opportunity when they shall be carried, together with the secretion, directly into the blood vessels of the victim of their mosquito host. There, if that victim happen to be a bird of an amenable species, they doubtless originate an infection of proteosoma, thus completing the cycle of the parasite.

Infection of Birds by the Bites of Mosquitos.—All that was now required to obtain complete proof of this theory was actually to infect healthy birds in the manner suggested. This was accomplished very easily. At the end of June, 1898, four sparrows and one weaver bird, whose blood on several examinations had been found to be entirely free from proteosoma, were subjected nightly to the bites of numerous grey mosquitos fed more than a week previously on a sparrow containing proteosoma. On July 9th these five birds were found to have become infected with swarms of the parasites. All of them died very soon, and the liver was profusely charged with the characteristic black pigment of malaria. The experiment was next repeated on a number of sparrows and other birds:

1. Out of 28 originally healthy sparrows subjected to the bites of grey mosquitos previously fed on diseased sparrows, 22, or 79 per cent., became infected, all with a very large number of parasites, in from five to eight days. This excludes a number of birds which died before the end of the incubation period from diarrhœa and other disease to which sparrows in captivity in Calcutta are subject. Out of the 6 birds which failed to become infected after these experiments, one was subjected to a second trial, which gave a successful result.

2. Out of 2 crows and 4 weaver birds, some of which contained halteridium though none contained proteosoma, 1 of the crows and all the weaver birds showed a copious proteosoma infection within nine or ten days of being bitten by grey mosquitos fed previously on sparrows with the latter parasite.

3. Out of 5 sparrows which originally contained a very few proteosoma, 4 showed a new and much more copious infection a week after being subjected to a similar experiment.

4. The attempt to transmit the proteosoma of sparrows to mainas and some other birds failed.

In all the birds in which the parasites appeared after the experiment, the invasion presented such constant and unmistakable characters that no possible room for doubt was left as to the infection being due to the mosquitos. The blood of the birds experimented with was examined both before the experiment and on several occasions afterwards. The course of events was always as follows: The blood would remain entirely free from proteosoma (except in the case of the five sparrows which originally contained a few of them) until the fifth, sixth, seventh, or eighth day after the experiment, when one or two parasites only would be found in an entire specimen. Next day it would invariably be seen that the number of parasites had largely increased; and this increase would continue until in a few days, in almost every case, the parasites become so exceedingly numerous that from ten to sixty, and even more, could be counted in almost every field of the oil-immersion lens, while as many as seven distinct parasites in a single corpuscle were often observed. The only exceptions were the case of the crow and that of the five originally infected sparrows, in which the number of parasites did not exceed about one in each field, even this being a high figure for proteosoma. Most of the birds now died, and showed not only the characteristic pigmentation of the liver, but also a distinct inky colour in the blood itself. In the few which recovered, however, the number of parasites rapidly declined. It is necessary to compare with these results those obtained from the examination of wild sparrows caught in Calcutta:

5. Out of 111 of these proteosoma was found in 15 only, or in 13.5 per cent., and in most of these the parasites were very few in number, exceeding in only two of them an average of one to each field.

Hence, in the infections artificially induced, both the percentage of birds affected and the number of parasites found were so largely in excess of the normal rate that, apart from other reasons, it is impossible to question the fact of proteosoma being communicable by mosquitos.

Major Ross adds under date December 31st, 1898, the following note: "Control experiments were not absolutely necessary in these experiments. The gradual invasion of the blood by the parasites offers a definite incubation period; the absence at first of forms containing discrete pigment; the enormous number of parasites finally observed; and the large percentage of birds in which these results were obtained sufficed to establish this law of communication. Nevertheless a large number of healthy sparrows were kept as controls, being preserved from accidental infection from the bites of free mosquitos in the laboratory by being placed every night in their cages within a mosquito netting. Only one of these birds was found to have become infected on a second examination; and in this case the parasites were so few that I think I must have overlooked them on the first observation. Later, many of the control birds were transferred to the other nets and became infected after the usual incubation period."

Communicability of Human Malaria.—Ross had not been able to study the reproductive elements of the mosquito stage of the human gymnosporidia; but he considers that there is no reason to suppose that they differ much from those of the proteosoma-coccidia, or that the modes of infection of human malaria are unlike those of avian malaria. The pigmented cells found in mosquitos fed on blood containing crescents were exactly like those derived from proteosoma.

Function of Black Spores.—This also remains undetermined. They have failed to infect several sparrows to which numerous mosquitos containing them were administered by the mouth; they have also failed to infect mosquito larvæ when given in a similar manner, and have undergone no change when kept in the damp chamber for seven weeks. Nevertheless, Ross thinks it probable that they infect larvæ after a period of maturation; and that malaria is probably produced only by the bite of the mosquito.

In conclusion, Major Ross writes: "Further details of these observations, together with drawings and photographs, are reserved for a future report, in which also I hope to deal, at least in part, with the conjugation of the smaller elements of proteosoma, the communicability of the parasites from one species of bird to another, immunity, and other questions now open to study."

THE PLAGUE.

Action of Gaseous Disinfectants on the Plague Bacillus.

In the British Medical Journal of November 19th, 1898, a short account was given of some experiments conducted by Mr. W. Watkins-Pitchford, M.B.Lond., on the action of disinfectants on the plague bacillus. Since then reports on the germicidal value of certain gaseous products have been issued. The action of gaseous sulphide dioxide is the subject of three reports from the Plague Research Laboratory, Bombay, on investigations carried out by Major Bannerman, I.M.S., and Drs. Marsh and Watkins-Pitchford. These experiments were performed in such manner as to test the efficacy of the disinfectant on plague bacilli both in cultures and in infected materials exposed to the fumes of the gas liberated into a room of known cubic capacity. It is noted at the outset that the rooms of the native houses do not lend themselves to gaseous disinfection, for the construction of the houses, doors, etc., is such as to make it impossible to render them airtight. Thus the native huts have tiled roofs without any ceiling; hence the impossibility of maintaining the requisite percentage of disinfectant for the prescribed time. But a room which could be rendered airtight in a particularly well-built native house was chosen. The sulphur dioxide was obtained in liquid form, under pressure, in small tins, each of such capacity as to be sufficient for the disinfection of 1,728 cubic feet.

Major Bannerman, experimenting with a room of 1,684 cubic feet, obtained living subcultures from all the agar growths exposed to the action of the gas, while Dr. Marsh, using a room of 1,152 cubic feet capacity, found that cultures of the B. pestis, freely exposed to the action of the gas, as for example agar plate cultivations, were killed by the sulphur dioxide, but similar cultures, not so openly exposed, retained their vitality. Drs. Marsh and Watkins-Pitchford obtained slightly more favourable results on another occasion. They conclude from their experiments that the vitality of cultures is destroyed when such cultures are freely exposed, and also when protected by thin coverings of earth, wool, leaves, etc.; and also that the gas acts as an efficient aërial disinfectant in a room of the size stated (1,150 cubic feet), and that it penetrates certain thicknesses of different substances likely to retain infectious material. They also found that the artificial addition of moisture to the atmosphere increased the potency of the disinfectant. The action of nitric fumes evolved on the addition of nitric acid to copper is also the subject of a report by these two investigators, but they found that these fumes possess only limited powers of penetration and diffusion, and an exceedingly feeble disinfectant action. Lastly, the action of vaporised carbolic acid forms the subject of a report by Major Bannerman. Pure carbolic acid was poured into an iron vessel previously raised to red heat in a fire, and the fumes so generated allowed to act for several hours. In such case he obtained entirely negative results so far as the B. pestis was concerned, though the insects in the room were killed by the gas.

Drs. Marsh and Watkins-Pitchford have also issued a report on the same method, and are in agreement with regard to the destruction of insect life. They found also that the vitality of the bacillus of plague is destroyed, provided that the bacillary growth is freely exposed to the action of the fumes, but that any obstruction to the free access of the fumes prevents the disinfectant action. They conclude from their experiments that compressed sulphur dioxide is superior as an aërial disinfectant to either carbolic acid or nitrous oxide fumes. Professor Haffkine, in whose laboratory these experiments were carried out, in forwarding the reports to the Secretary to the Surgeon-General with the Government of Bombay, emphasises the difficulties that attend gaseous disinfection of native houses as at present constructed, and remarks that they can only be of service to supplement the action of liquid disinfectants, more particularly with the object of killing the insect life in the air, as insects in infected rooms are likely to be carriers of contagion.

Plague in Sindh.

The Province of Sindh occupies the north-western corner of the Indian Empire, and constitutes the south-western termination of the Indus Valley. It is an alluvial, partly deltaic, plain; sandy and dry, merging south-eastward into almost rainless desert, cold in winter, very hot in summer, sparsely peopled, and comparatively isolated. It is within from 36 to 48 hours' journey by sea from Bombay to Karachi, communicates with the Punjab by the north-western railway, and with Beluchistan by the Sindh-Pishin line. It was visited in 1896-97 by plague, of which Surgeon-Colonel G. Bainbridge, M.D., Administrative Medical Officer of the Sind District, has written a very interesting and instructive report.

Plague had appeared in Bombay in August, 1896. Early in October the health officer of the Port of Karachi was ordered to inspect all vessels arriving from Bombay, and to detain, segregate, and disinfect any cases of plague that might be discovered. Later in the same month quarantine was imposed upon vessels with plague on board or without a doctor, and accommodation for those detained provided. In January quarantine was abolished and amended rules for inspection issued. "In 42 vessels from Bombay and intermediate ports entering harbour between November 1st, 1896, and July 31st, 1897, and carrying 6,697 passengers, only two persons were found to be suffering from plague; but out of 4,929 passengers by these vessels who were detained in quarantine or under observation 13 subsequently developed plague." This proves the inadequacy of mere inspection to arrest infected travellers in India. They elude detection during the period of incubation. Inspection at railway stations was largely resorted to, and equally inefficient for the same reason. Moreover, travellers dodged inspection by either proceeding by road or booking to a station short of the inspection station and rebooking beyond it. These inspections may act beneficially in reducing somewhat the number of infecting foci; but nothing short of general detention for a period sufficient to cover the duration of the incubation stage can exclude importation, and even then there are contingencies connected with evasion, fomites of sorts, rats, birds, and insects, and perhaps atmospheric conveyance of the *materies morbi*, against which no system of inspection or even quarantine can provide.

The disease broke out in Karachi about the middle of December. Its origin could not, as in the case of Bombay, be traced; but towards the end of the month it was recognised to be fairly established as an epidemic. Cases continued to multiply until the first week of February, in which 321 were reported. The disease maintained a high level till the beginning of April when a decline set in, which in May was rapidly progressive. A few cases continued to occur in June and July, and the epidemic then disappeared. The general mortality presented a corresponding curve reaching a maximum of 244 per mille per annum in the last week of January, and in July reverting to the normal level. The total number of cases was 4,181, and of deaths 3,391, giving a case mortality of 81 per cent. The disease was concentrated in the oldest, most thickly populated, and worst sanitated quarters of the town. It spread slowly from quarter to quarter; but once established it progressed rapidly. The cantonment area and sudder bazaar, which are less densely peopled and under military control, and where measures of segregation and disinfection were more vigorously and effectively carried out, suffered comparatively slightly. The incidence among the male population was 11.0 per 1,000 and among the female 5.3. Hindus suffered more than Mohammedans, the incidence rates being 11.0 and 6.7. This result is attributed to the former being more mobile. No soldier or European was attacked.

From Karachi as a centre the disease spread to many towns and villages of the province. The statistics of inspection of outgoing passengers from the port indicate the possibilities of dissemination very clearly. Among 19,623 such 11 cases of plague were discovered previous to embarkation, and among 50 others who were detained under observation, 13 developed the disease. Dr. Bainbridge gives a list of twenty-three places into which the disease was imported from Karachi, Bombay, and Kutch Mandvi, and from Hyderabad and Sukkur, which became secondary centres. In these places 1,512 cases occurred, of which 235 were imported. In ten of the twenty-three localities into which cases were imported, no local development of the disease occurred; and in the thirteen in which a local development arose, four to six weeks elapsed between the importation and local outbreak. The importation took place in the months of January, February, and March. Dr. Bainbridge can assign no cause, climatic, local, or sanitary for this large proportion of local immunity, and contends that the manifest hesitation of new places to take the disease strengthens the case for preventive measures, even of an incomplete description.

The measures of prevention which were adopted mostly came under this designation. No restriction was placed upon the movements of the inhabitants, and even in segregation camps people were allowed to go to their work and be visited by their friends. Disinfection was largely resorted to of streets, houses, clothing, etc.; hospitals were provided and persuasion more or less strong employed to induce people to send their sick to them and vacate their houses and huts, and camps were organised in Karachi and other places in order to remove the inhabitants from infected places and provide more or less segregation. Dr. Bainbridge pronounces a strong opinion regarding the value of these camps of segregation, and gives striking illustrations of their influence in reducing or extinguishing disease. The hospitals fulfilled an eminently humane and excellent purpose. The municipalities and public generously contributed to their support, and the medical and nursing work was conducted with skill and efficiency. The people at first were averse to entering them, but eventually became less reluctant, or even willing to enter them. The mortality of cases treated was 66 per cent., against a general mortality of 81. The report indicates strikingly the difficulties experienced in dealing with a plague-stricken Indian population.

The fact that it is almost impossible to control and restrain movement has been referred to. The detection of cases is another task of great difficulty; in a temple at Sukkur five persons ill with plague and thirty-five dead rats were found. All matters connected with domestic, social, and industrial life presented grave obstacles; and the fact that no disturbance of consequence arose during the outbreak attests the caution and tact with which preceedings were conducted.

Dr. Bainbridge records many facts and opinions which merit notice. From statistics and observation of particular instances he concludes that the ordinary period of incubation is five days, the interval between exposure to infection and appearance of first symptoms seldom exceeding eight. He believes in aërial transmission as the most common mode of infection, and argues against cutaneous inoculation being otherwise than an occasional event. He gives reasons for concluding that "rats play an active part in carrying plague from one section of a town to another," and urges the importance of destroying them. As regards the origin and development of plague in places, he remarks that "each new focus of infection results from the movement of infected persons; local cases follow importation in about a month, diffusion is then rapid." The progress of the plague on the whole is therefore a slow process. He does not consider that climatic conditions materially influenced the advance and development of plague, but the general history of the epidemic in Sindh points to an opposite conclusion. The types of disease observed are roughly classified as bubonic and non-bubonic. The former constituted about 83 per cent. of cases. The non-bubonic include the pneumonic and septicæmic. Inguinal and femoral buboes were most common (67 per cent. of all bubonic cases); axillary came next in frequency (16), submaxillary and nuchal next (11.2), and a few cases of iliac and multiple buboes were noted.

The non-appearance of buboes was an unfavourable sign. In women and children axillary and nuchal buboes were more common than in men. Primary pneumonia constituted from 5 to 15 per cent. of cases. It was a very fatal type, the case mortality being nearly 100 per cent. The lung lesion was lobular, and there was free hæmoptysis, the expectorated blood being almost a pure cultivation of plague bacilli. Abortion was a common event in plague-stricken pregnant women, and generally fatal. Nursing and feeding were found to be the most important elements in treatment. Stimulants, general and cardiac (alcohol, ammonia, strychnine, and caffeine), and sedatives and hypnotics (hyoscine, sulphonal, and morphine) were the most serviceable drugs. Early incision of buboes was found to be good practice, resulting in a fall of temperature and avoidance of destructive local changes. Most of the deaths occurred in hospital within forty-eight hours of admission. The average duration of residence of fatal cases was five days, and of those which recovered twenty-nine days. The services of medical officers and subordinates and of nurses were very meritorious and valuable. Many of the nurses were volunteers. The instances of infection of hospital attendants were very rare.

BOMBAY.

The plague returns for the week ending February 14th show 708 deaths. This is an increase on the preceding week of 120, and it would appear, from history of the past three weeks, that plague is recrudescent in an epidemic form. The Bombay authorities have come to regard 100 deaths a day as sufficient to stamp plague as epidemic, and, judged by this standard, Bombay is again visited by plague in an epidemic form. The natives are becoming scared, and a considerable exodus is taking place.

PRETORIA.

Owing to plague having appeared at Middleburg, in the Transvaal, the Republican Government is prohibiting coloured persons from Asia, Mauritius, and Madagascar from entering the country from the eastward, unless they have an official permit.

MADAGASCAR.

The French authorities in the island declare that they have plague well in hand and that it is being stamped out.

THE SPECIAL COMMISSION.

The Plague Commission whilst at Daman were given to understand that the disease was brought to Daman from Karachi by the crew of a native craft. The greatest mortality was among the Mohammedans who refused to adopt ordinary sanitary precautions. At Daman the duration of the outbreak was short, owing to the evacuation measures adopted.

At Bombay, Mr. Stewart of the Bombay Government, strongly advocated evacuation and disinfection as a means of combating plague.

Lieutenant-Colonel Waters stated in his evidence that he thought plague in Bombay was associated with the system of the protracted storage of grain prevalent in India and the East generally.

Dr. Mayrs, of the Austrian Mission, gave evidence as to the efficacy of Lustig's curative serum. In two cases where the blood of the patient was examined subsequent to injections by this serum, the microbes were found to have disappeared and the patients recovered.

Dr. Blaney gave the following figures showing the number of deaths in Bombay according to caste per 1,000: Jains, 38; Hindus, 22; Brahmins, 20; native Christians, 15; Parsees, 9; Eurasians, 7; Jews, 5; and Europeans, 1.

THE NEW VACCINATION ACT IN OPERATION.

PUBLIC VACCINATORS AND MEDICAL ETIQUETTE.

S. C. A. writes: Your article on the new Vaccination Act and the warning contained therein comes very opportunely. I hope it may have the desired effect on public vaccinators who may be, unintentionally, rather careless about professional etiquette, and, consequently, cause unpleasantness with their medical brethren.

ONE-MARK OR TWO-MARK VACCINATION.

VACCINIA writes: What I as a public vaccinator have most to complain of in the working of the new Act is, as so aptly expressed in your leader of February 4th, the "downward competition on the part of my brethren in private practice." I find that the people welcome the domiciliary visit, they welcome the offer of glycerinated calf lymph, but many of them strongly object to four-mark vaccination, especially when they know that they can get a one-mark or two-mark vaccination from the "sixpenny doctor," or from their family medical attendant. It is distinctly unfair on the part of the Local Government Board to fix one standard for the public vaccinator and another for the private practitioner, and at the same time to accept the two classes of results as of equal value.

VACCINATION ON THE LEG.

MR. JOHN GABB, M.R.C.S., etc. (Bewdley), writes: The new departure in vaccination of appointing teachers at the medical schools, as at St. George's Hospital, affords a very advantageous opportunity for establishing a new custom, such as would diminish greatly the objection of mothers to the operation.

My proposal is that, as many mothers object more to the disfigurement of the arm by unsightly scars than to vaccination itself, the leg should be operated on instead of the arm. A line of half a dozen scars, if so many are considered necessary, may be made on the outside of the leg between the tibia and fibula, without causing the least objectionable disfigurement. I have myself vaccinated a few children as suggested, to the unbounded satisfaction of the mothers in all the stages of the process. The ladies are a power on the question of vaccination, and are certainly entitled to a voice in the matter, especially when the disfigurement of a daughter's arm is concerned. Anything which might have a tendency to lessen objections to vaccination is worth consideration. If the age of the child were extended to twelve months, within which period the operation should be performed, and the leg were selected instead of the arm as the limb to be disfigured, all objection to vaccination, except by fanatics, would soon be of the past.

MR. HUBT. C. P. MASSER (Longford, Coventry) writes: In justice to the National Vaccine Establishment, may I state my experience?

52 cases vaccinated with the new glycerinated lymph issued by the National Vaccine Establishment.
47 cases, 4 fully-developed vesicles.
2 cases, 3 fully-developed vesicles.
2 vaccinated from the same tube in the same house; no result.
1 inadvertently punctured in five places; 5 fully-developed vesicles.

My mode of procedure is to wash the arm with Fell's germicide soap, carefully dry and place four spots of lymph on the arm, diligently working it in with the lancet, avoiding as far as I can drawing more than the merest trace of blood. Request the parents to allow the lymph to dry, and direct them to leave the vaccinated surface quite uncovered with clothing (so as to avoid friction), and dust it with starch. So far I have had the best possible results; in 4 cases there has been slight constitutional disturbance, but this has disappeared after a mild aperient and saline (magnesium sulphate). I have obtained the grant, I think, ten times in succession, and have never had to give a certificate of insusceptibility.

MR. T. F. RAVEN (Broadstairs) writes: I for one have no fault to find with the glycerinated calf lymph supplied this year by the Local Government Board. With tubes numbered Series 51, 55, and 57 I have obtained 26 vesicles, generally typical, out of a possible 28. I use the lymph directly I receive it. I remember that some years ago I met with some comparative failures owing to the employment of a sharp instead of a blunt lancet. Is it possible that the failures mentioned in the columns of the BRITISH MEDICAL JOURNAL are to be accounted for in this way?

MR. G. M. SHARPE, Public Vaccinator, Hunslet Union, writes: I am surprised at the number of failures mentioned by "P.V.," in the BRITISH MEDICAL JOURNAL of February 4th. I obtained four tubes of National Vaccine Establishment lymph to commence operations with, and in no fewer than thirty-eight instances have I obtained good plump typical vesicles, four in number, in each child. The lymph has given me much more favourable results than the previous arm-to-arm system, both in uniformity, in size, and general character. In only two instances have I failed to secure satisfactory vaccination, and in both cases I found the dressings had been removed by parent. The parents will tell you the dressings "came off" after "P.V." left, but this is impossible in the system I adopt, namely, of strapping the boric wool pad down with Seabury and Johnson's half-inch rubber strapping. These dressings are intentionally, no doubt, removed, and I cannot but think this has been the case with "P.V.'s" cases. I have written the National Vaccine Establishment, thanking them for the excellence of lymph supplied. I used No. 38 series.

VACCINATION OF SCHOOL BOARD TEACHERS.

E. asks for suggestions as to wording of a resolution that School Board teachers shall have been efficiently vaccinated.

⁂ The following would probably meet the case: That in future every teacher before being elected shall produce sufficient and satisfactory evidence of having, within the previous five years, been efficiently vaccinated or revaccinated; but this regulation shall not apply in the case of any teacher who shall produce sufficient and satisfactory evidence that he or she has already had small-pox, or who shall agree to submit himself or herself to the operation of vaccination or revaccination by a medical man to be nominated by the Board, such operation to be repeated not less than twice in the event of its failure on the first, or first and second attempts.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary meeting of Council was held on February 9th, Sir **WILLIAM MACCORMAC**, Bart., K.C.V.O., President, in the chair.

Medical Acts.—The Council having been advised by counsel that the independent action of the Council of the College would be seriously affected by the clauses proposed by the General Medical Council for the amendment of the disciplinary clauses of the Medical Acts,[1] resolved that the President of the General Medical Council be informed that the Council of this College do not approve the clauses in their present form.

Portrait of the late Mr. Henry Lee.—A portrait of the late Mr. Henry Lee, F.R.C.S., offered to the College by Mrs. Henry Lee, was accepted with thanks by the Council.

Standard of Preliminary Education.—A letter was read from Sir John Batty Tuke, Chairman of the Education Committee of the General Medical Council, seeking information bearing on the question of the desirability or otherwise of raising the standard of preliminary education for medical students, after due notice, to that of the "senior local" and "higher grade" examinations. The consideration of this was referred to the Committee of Management.

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[1] BRITISH MEDICAL JOURNAL, February 4th, p. 291.

LITERARY NOTES.

ACCORDING to the New York *Publishers' Circular* 143 new books dealing with medical science and hygiene were published in the United States during 1898, while of new editions there were 45. In 1897 the number of new books was 129, and of new editions 24. Of medical books "by American authors, including new editions, manufactured in the United States," the number in 1898 was 119; of books "by English and other foreign authors, including new editions, manufactured in the United States," there were 33; of medical books "by English authors, imported, bound, or in sheets, into the United States," there were 36.

The January-February number of *Janus* contains a portrait of Sir Joseph Fayrer, with an appreciative sketch of his career, by Dr. A. Davidson. Dr. Lucien Hahn, Sublibrarian of the Paris Faculty of Medicine, writes of oxygen and its employment in medicine since the time of its discovery. Dr. Ludwig Hopf contributes a "medicinisch-kulturgeschichtliche Studie" on the history of "Organotherapy"; Dr. E. T. Withington (whose name is misprinted "Wittington") discourses on medical history in England, making kindly reference *inter alia* to the "interesting series" of Archæologica Medica in the BRITISH MEDICAL JOURNAL. The rest of the number, which is considerably less bulky than its predecessors, is made up of the usual *omnium gatherum* of historical, therapeutical, and miscellaneous excerpts and fragments. A notice on the cover states that the collaboration of "several eminent English men of science" having been secured, the editor will "in future be more able to give to the English language the space so justly due."

The influence of diet on literature is a subject which has not yet been fully studied. Perhaps our new French contemporary, the *Revue des Rhumatisants*, which takes everything connoted by the term "gout" as well as rheumatism for its province, will give attention to this matter; it will find a plentiful supply of clinical material among its contributors who are by no means backward in confessing their dietetic indiscretions. Byron, when he felt himself in danger of becoming more fat than bard beseems, lived for some time on biscuits and soda water, and asked Tom Moore if beef steaks did not make him ferocious. From the works of these two poets one would be inclined to conclude that Byron's diet tended more to ferocity than Moore's. Mr. Herbert Spencer, who lived as a vegetarian for a year, is said to have summed up the effect of his diet on his literary productions as follows: "At the end of that year I read over all that I had written during the period, and forthwith consigned it *in toto* to the fire."

The Chinese, who anticipated the "Western devils" in the invention of gunpowder and printing, seem to have been before us also in one of the very latest discoveries of modern science. According to a writer in a recent number of the *Archives Russes de Pathologie*, the physicians of the Celestial Empire have for a long time treated neurasthenia, cachexia, and general debility with the cerebral substance of the common or barndoor fowl. The brain is dried, powdered, and mixed with "excitant and nervine" substances, and so administered.

A great sculptor of antiquity is said to have tortured a slave that he might catch the expression of agony required for a statue, and actresses of our own day have studied death scenes, the phenomena of poisoning, and nerve storms in hospitals. Writing in the January number of the *St. Bartholomew's Hospital Journal*, Mr. Benjamin Barrow, F.R.C.S., of Ryde, relates the following anecdote, which shows that musicians are sometimes as thoroughgoing in their studies:

> There are few who remember Paganini, the great musician who produced from a one-stringed violin many clever musical and other sounds. He applied to the then Mr. Lawrence to be allowed admission to the operating theatre that he might hear the agonising cry of a patient under suffering. Upon being asked whether the request should be granted, I said on one condition: "That the man gives a musical entertainment in the anatomical theatre and pays to the funds of the hospital five shillings per head for everyone attending." I remember the shrug of the shoulder of the professor, and the the rapid turning on his heels, and departure. So much for philanthropy!

But what has Art to do with philanthropy? Nero, who saw in the burning city only matter for a song, had the true artistic temper.

M. Paul Bourget, the psychological novelist, has given the world his views on the medical profession in the following passage which occurs in a story published in the *Revue des Deux Mondes* of January 15th. The words are put into the mouth of one of the characters, but they read as if they expressed the author's own feelings:

> What has decided me to take up medicine, strange as it may seem to you, is the need of certitude. My personal tastes would have led me to something more abstract. I should have entered the École Normale to work at metaphysics had I not read Kant and also Taine's *Intelligence*. It seemed to me that the object of philosophical studies is too doubtful. My mind is, as it were, an hungred and athirst for something positive, indisputable. The natural sciences supply this. I therefore turned towards them; then I reflected. I don't know your state of mind in regard to moral convictions. As for me, my position is that of absolute agnosticism. I am of opinion that we cannot know of certain knowledge whether, to take the simplest formula, there is a God; or, if there is not, whether there is any good or evil, or not; merit or demerit, or not; another life, or not. Nevertheless, one must act. I at least feel the necessity of action, especially since I saw war. I have the impression that I should have on a ship in danger in a storm. It is a shame to take no part in the work, if one is able to do so. I recalled to myself the reasoning of Pascal—you remember, don't you?—about the bet. I said to myself, which among the natural sciences is the branch which lends itself to a practical use such as can be applied in all hypotheses? It seemed to me that medicine, understood in a somewhat high sense, answered this requirement. In fact, examine one solution and the other. Suppose all the spiritualist theories, nay more, all the Christian theories, to be demonstrated. What is one's duty? To relieve the being who suffers. The doctor does that. Suppose all the opposite theories to be demonstrated, to what is morality reduced? To an instinct which must be recognised and satisfied like all instincts, and which consists in the need of associating ourselves with others, of helping our fellow men, and of being helped by them against Nature, which is our enemy. Who accomplishes this task better than the doctor? He is the altruist *par excellence*. He is right, whatever be the metaphysical postulate which we accept. And this is so true that since the day when I first registered myself as a student and entered the door of the hospital I have felt a kind of calm to which I was before a stranger. It has been borne in upon me that intellectually and morally I have—how shall I say?—had my feet on the ground, that I was walking on something solid. In short, I was no longer in doubt.

Carlyle said the same thing more tersely when he wrote to a young medical man about his profession: "Whoever is wrong, *you* are in the right."

We have had occasion to point out—we hope with becoming meekness—that "*per orem*," which occurs with distressing frequency in medical writings, is a form of words not sanctioned by classical usage. The *New York Medical Journal* was, not long ago, moved to express a wish to know to what language the word "orem" belongs. Our contemporary received unexpected enlightenment from a "physician," who, with all the gravity in the world, vouchsafed the following interesting information:

> In the *New York Medical Journal* for December 24th, 1898, page 930, you "would like to know to what language the word '*orem*' belongs." Answer: Latin. It is the accusative case singular of the word *os*. Accusative because it follows and is governed by the preposition *per*. Nom., *os*, gen., *oris*; dat., *ori*; accus., *orem*; abl., *ore*.

The *New York Medical Journal* gently puts this learned Theban right in his eccentric notions of Latin accidence. For ourselves we can only say with Macaulay that if a schoolboy under our care were to be guilty of such a concatenation of blunders, our soul assuredly should not spare for his crying. We should indeed have thought a double strength of the local application indicated—a corrective being required for impudence as well as for ignorance.

In a more recent issue of our contemporary, another correspondent, writing from the "hub of the universe," Boston, defends the "*per orem*" barbarism by the following exquisite reason:

> I venture to call your attention to a good Latin authority, Harper's *Latin-English Lexicon*, published in your good city. If you turn to the word *os*, you will read as follows: "1, *Os*, *oris*, the mouth." After a series of etymological paragraphs, if you turn the leaf you will find "2, *Os*, *ossis*, a bone, plural *ossa*." So there are *two* Latin words *os*; and when you write the phrase *per os*, as signifying by mouth, you use the accusative singular of the second *os*, and the meaning would be "by the bone."

As to all which we can only say, with Dominie Sampson, "Prodigious!" But when this vessel of erudition goes on to regret "how general the use of *per os* is getting to be in the medical journals south and west of New England," we venture to suggest that there is at least one other thing which he may with more reason regret, and that is the quality of the classical instruction imparted to him in his youth. With a fatuity so childlike and bland that it almost disarms criticism, the Bostonian Priscian adds:

I have never yet met the phrase in any of the English, Scotch, or Irish medical journals which I read.

We have a good deal of criticism from confident ignorance of one kind or another, and we try to bear it with such humility as we can command. But if that *monstrum horrendum*, "*per orem*," were imputed to us, verily we think the worm would turn.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF SPECIAL MEETING.

A Special Meeting of the Council will be held at the office of the Association, No. 429, Strand, London, W.C. on Friday, the 10th day of March next, at 2 o'clock in the afternoon, to consider the recommendation of the special meeting of the Parliamentary Bills Committee held on February 3rd.

Francis Fowke, *General Secretary.*

429, Strand, February 15th, 1899.

BRANCH MEETINGS TO BE HELD.

Metropolitan Counties Branch: South London District.—The next meeting will be held in the Governor's Court Room of Guy's Hospital on Friday, February 24th, at 4 P.M. The following papers will be read and cases demonstrated on: Dr. Bryant: Carcinoma of the Stomach. Mr. L. A. Dunn: Reduction of Hernia *en masse.*—Theo. B. Hyslop, District Secretary, Bethlem Royal Hospital, S.E.

South Wales and Monmouthshire Branch.—A clinical meeting will be held on Tuesday afternoon, February 28th, at the Hospital, Swansea. Titles of papers. cases, etc., to be sent to the Local Secretary, on or before Wednesday, February 22nd.—A. Sheen (Cardiff), D. Arthur Davies (Swansea), Honorary Secretaries

Bath and Bristol Branch.—The fourth ordinary meeting of the session will be held at Bath on Wednesday evening, February 22nd, at 7.30 P.M., Dr. Lionel A. Weatherly, President. Business: To consider a communication from the Worcestershire and Herefordshire Branch relative to the Vaccination Act, 1898. To consider a communication from the Western Counties Branch of the British Dental Association relative to (*a*) unregistered practitioners of dentistry, and (*b*) dentists who advertise. The following communications are expected: Dr. J. Michell Clarke: Treatment of Adhesions and of Pyloric Stenosis due to Gastric Ulcer. Dr. J. G. Douglas Kerr :Treatment by Hot Air, with demonstrations. Dr. T. Wilson Smith: Some Events in the course of the Uric Acid Diathesis. Dr. James Pearse: A case of Rupture of the Uterus: Recovery. Dr. E. J. Cave: Some recent applications of Bacteriology to Clinical Medicine.—W. M. Beaumont (Bath), J. Michell Clarke (Clifton), Honorary Secretaries.

Midland Branch: Lincolnshire District.—A meeting of this District will be held at Spalding on March 9th. Notices of papers, notes of cases, or exhibition of cases or specimens on that occasion should be sent to Dr. E. Mansel Sympson, Deloraine Court, Lincoln, Honorary Secretary.

Lancashire and Cheshire Branch.—A meeting of this Branch will be held in the Medical Institution, Mount Pleasant, Liverpool, on Tuesday, February 28th, at 2.30 P.M. Agenda.—The Secretary will move: "That every accredited representative of this Branch, when attending a Committee or Subcommittee meeting in London on the business of the British Medical Association, and every member of a deputation to London, appointed by this Branch or by the Council of this Branch, on Association or Branch business, shall be paid out of the funds of this Branch his first-class return railway fare. However, this regulation shall not apply to representatives of this Branch on the Council of the Association when in attendance at meetings or on deputations at or about the times of the Council meetings in London, or to the attendance of anyone during a meeting of the Association, or to anyone when his fare or expenses are paid out of the funds of the Association." Dr. Carter will move: "That the Lancashire and Cheshire Branch of the British Medical Association desires to express its opinion that the efficient primary vaccination of every child is necessary in order to afford protection against outbreaks of small-pox; that stringent measures should be adpted to enforce such efficient primary vaccination; and that no certificate should be recognised unless the requirements of the Local Government Board have been fully complied with." Dr. J. Brassey Brierley will move: "That seeing the persistent refusal of the promoters of the Midwives Registration Bill to secure efficient medical and lay control over their proposed practitioners, the Lancashire and Cheshire Branch of the British Medical Association declines to take any further part in this question, and will use all its power to defeat this Bill or any modification of it." Medical and Surgical Communications:—Mr. W. Mitchell Banks: Some Surgical Cases (with patients). Dr. G. Thurstan Holland: Case of Lupus treated by *X* Rays (patient). Dr. G. C. Stopford Taylor: Cases of Lupus and Favus (patients). Mr. Rushton Parker: Case of Plexiform Neuroma of Eyelids, Excision; Ptosis completely corrected by Plastic Operation. Mr. W. Thelwall Thomas: Four Cases of Tumour of the Urinary Bladder, diagnosed by Cystoscopic Examination, and operated upon. Mr. R. W. Murray: Case of Suppurative Peritonitis. Mr. Robert Jones: Cases of Foreign Bodies in the Œsophagus. Mr. Damer Harrisson: Two Cases of Traumatic Epilepsy (with patients); Three Cases of Intestinal Obstruction. Dr. Wm. Bain: The Relative Excretion of the Nitrogenous Waste Products in a Case of Liver Abscess. There will be an exhibition of patients in the Library, from 2.30 to 3 P.M., by Drs. and Messrs. Mitchell Banks, Barendt, Barr, Damer Harrisson, Robert Jones, R. W. Murray, Rushton Parker, Paul, Stopford Taylor, Thelwall Thomas, etc. There will be an exhibit of New Drugs and Chemicals, Medical and Surgical Instruments, etc. Arrangements will be made for a dinner at the Adelphi Hotel, at 6 P.M., if twenty members notify their intention of being present. Tickets (wine not included), 5s. each. In order to facilitate arrangements, the Secretary will feel much obliged if every member who intends to be present at the meeting will kindly inform him whether he purposes being present at the dinner. Those gentlemen who intend coming, but who on the day of meeting may find it impossible to do so, will not be held responsible for their dinner tickets. The Secretary is very anxious to get the number as correctly as possible. A Council meeting will be held at 2 o'clock on the day of the meeting. Those who wish to become members of the Branch, or of the Association and Branch, should communicate with the Honorary Secretary at once. There are over 1,500 members of the medical profession in these two counties who are not members of the British Medical Association, and nearly 400 who are members of the British Medical Association, but not of this Branch. There is thus a large field in which members can render valuable aid in stimulating the growth and importance of this Branch. The Secretary hopes that members will induce as great a number of these as possible to join the Association and Branch. Anyone wishing an application form can have it by applying to the Secretary, James Barr, M.D., 72, Rodney Street, Liverpool.

Edinburgh Branch.—The annual winter meeting of the Edinburgh (Fife and Lothians) Branch, in conjunction with other Branches, will be held in the Royal Infirmary, Edinburgh, on Friday, March 17th. A Medical Congress for Clinical Demonstrations will be held at 4 P.M. The museum (pathological and apparatus will be open from 3.30 P.M. onwards. Dinner in the Royal Hotel, Princes Street, at 6.30 P.M.; dinner ticket, 5s. Intimation of exhibits (clinical or other) should be made to Jas. Hodsdon, M.D., 6, Chester Street, Edinburgh, or R. W. Philip, M.D., 45, Charlotte Square, Edinburgh, Honorary Secretaries.

Staffordshire Branch.—The second general meeting of the session will be held at the North-Western Hotel, Stafford, on Thursday, February 23rd. The President, Dr. McAldowie, will take the chair at 4.30 P.M. There will be dinner at 6.30 for those staying.—F. Milnes Blumer, Hon. General Secretary, Stafford.

HONG KONG AND CHINA BRANCH.

A meeting of this Branch was held on December 15th, 1898, Dr. Jordan, President, in the chair.

Representative of Branch on the Association Council.—Letter read from Mr. James Cantlie thanking the Branch for re-electing him its representative on the Council and on the Parliamentary Bills Committee.

New Members.—The following gentlemen having been elected members of the Association by the Branch, were duly elected members of the Branch: Fleet-Surgeon Alexander J. J. Johnston, R.N., Dr. J. H. Swan, Dr. George Montague Harston; and the following gentlemen, already members of the Association, were elected members of the Branch: Captain John Frazer Clark, R.A.M.C., Fleet-Surgeon J. C. Dow, R.N.

Communications.—Dr. Jordan showed a case of Cystic Adenoma of the Breast and two Teale's Amputations, one above the ankle and the other above the knee.—Dr. Stedman showed a large Gall Stone which was found impacted in the biliary duct of a Chinese prisoner, who had died somewhat suddenly from biliary colic and syncope.—Dr. Thomson showed specimens of Typhoid Ulcers of the Intestines of two Chinese infants, and a specimen of Tuberculous Ulcers of the Intestine.

Balance Sheet.—The balance sheet showing a credit balance of 83.20 dollars was submitted and adopted.

Election of Officers.—The following officers of Council were then elected for the ensuing year: *President:* Dr. J. C. Thomson. *Vice-President:* Colonel Evatt, P.M.O. *Council:* Dr. Atkinson, P.C.M.O.; Staff-Surgeon Home, R.N.; Dr. Rennie, Dr. Stedman. *Secretary and Treasurer:* Dr. Francis Clark, M.O.H.

Retiring President's Address.—The retiring President, Dr. Jordan, then delivered a valedictory address, taking as his subject the Treatment of Operation Wounds without Drainage, and the meeting closed with a vote of thanks to Dr. Jordan.

Typhoid Fever in the Yukon.—It is reported that there were 300 cases of typhoid fever in hospital at Dawson City on January 8th. Very few of the cases, however, were proving fatal.

BRITISH MEDICAL ASSOCIATION.

SIXTY-SEVENTH ANNUAL MEETING.

The sixty-seventh annual meeting of the British Medical Association will be held at Portsmouth on Tuesday, Wednesday, Thursday, and Friday, August 1st, 2nd, 3rd, and 4th, 1899.

President: Sir Thomas Grainger Stewart, M.D., LL.D., F.R.S.E., Professor of Practice of Medicine and Clinical Medicine in the University of Edinburgh, Physician in Ordinary to Her Majesty the Queen for Scotland, Edinburgh.

President-Elect: John Ward Cousins, M.D., F.R.C.S., Senior Surgeon, Royal Portsmouth Hospital.

President of the Council: Robert Saundby, M.D., LL.D., F.R.C.P., Physician to the General Hospital, Birmingham.

Treasurer: Charles Parsons, M.D., Dover.

An Address in Medicine will be delivered by Sir Richard Douglas Powell, Bart., M.D., F.R.C.P., Physician Extraordinary to Her Majesty the Queen, Physician to Middlesex Hospital.

An Address in Surgery will be delivered by Professor Alexander Ogston, M.D., Surgeon in Ordinary to Her Majesty the Queen in Scotland, Regius Professor of Surgery in the University of Aberdeen.

The scientific business of the meeting will be conducted in twelve Sections, as follows, namely:

A. Medicine.

President: John Mitchell Bruce, M.D. *Vice-Presidents:* Edward James Wallace, M.D.; Robert William Burnet, M.D. *Honorary Secretaries:* William Sykes, M.D., Bury Place, Gosport; Humphry Davy Rolleston, M.D., 112, Harley Street, W.

B. Surgery.

President: Henry Trentham Butlin, F.R.C.S. *Vice-Presidents:* Deputy-Inspector-General Richard Samuel Purnell Griffiths, R.N.; Alfred Lloyd Owen, M.D. *Honorary Secretaries:* Henry Rundle, F.R.C.S., 13, Clarence Parade, Southsea; D'Arcy Power, F.R.C.S., 10A, Chandos Street, Cavendish Square, W.

C. Obstetrics and Gynæcology.

President: George Granville Bantock, M.D. *Vice-Presidents:* John Robert Kealy, M.D.; John Wm. Taylor, F.R.C.S. *Honorary Secretaries:* Charles Plumley Childe, F.R.C.S., Cranleigh, Kent Road, Southsea; Ernest Wilmer Phillips, M.R.C.S., Victoria Crescent, Victoria Road North, Southsea; Walter Wm. Hunt Tate, M.D., 57, Queen Anne Street, W.

D. State Medicine.

President: George Wilson, M.D. *Vice-Presidents:* Surgeon-General Charles MacDonagh Cuffe, C.B.; Joseph Groves, M.B. *Honorary Secretaries:* Henry Richard Kenwood, M.B., Granville House, Alexandra Villas, Finsbury Park, N.; A. Mearns Fraser, M.B., Epworth, St. Edwards Road, Southsea.

E. Psychology.

President: David Nicolson, C.B., M.D. *Vice-Presidents:* Samuel Rutherford McPhail, M.D.; Peter William Macdonald, M.D. *Honorary Secretaries:* James Neil, M.D., Warneford Asylum, Oxford; Bonner Harris Mumby, M.D., Medical Superintendent, Boro' Asylum, Portsmouth.

F. Anatomy and Physiology.

President: John James Charles, M.D. *Vice-Presidents:* Aurelius Victor Maybury, M.D.; Andrew Francis Dixon, M.B. *Honorary Secretaries:* Edwin John Norris, M.R.C.S., May Villa, Cottage Grove, Southsea; Wm. Joseph Essery, M.B., Netley Lodge, South Parade, Southsea; Marcus Seymour Pembrey, M.D., Charing Cross Hospital, W.C.

G. Pathology.

President: Joseph Frank Payne, M.D. *Vice-Presidents:* Frederick John Driver, M.D.; Otto Jackson Kauffmann, M.D. *Honorary Secretaries:* Edmund Fauriel Trevelyan, M.D., 40, Park Square, Leeds; William Carling, M.B., 11, Rosebery Terrace, Highland Road, Southsea.

H. Ophthalmology.

President: Simeon Snell, F.R.C.S.Edin. *Vice-Presidents:* Lysander Maybury, M.D.; Edward Treacher Collins, F.R.C.S. *Honorary Secretaries:* Arthur Vernon Ford, M.R.C.S., South View Lodge, Kent Road, Southsea; Arnold Lawson, F.R.C.S., 12, Harley Street, W.

I. Diseases of Children.

President: Edmund Owen, F.R.C.S. *Vice-Presidents:* James Green, M.R.C.S.; Dawson Williams, M.D. *Honorary Secretaries:* Alfred Herbert Tubby, M.S.Lond., 25, Weymouth Street, Portland Place; George Augustus Tullis, M.D., 20, Clarence Parade, Southsea.

J. Pharmacology and Therapeutics.

President: John Buckley Bradbury, M.D. *Vice-Presidents:* C. H. Watts Parkinson, M.R.C.S.; Samuel Goss, M.R.C.S. *Honorary Secretaries:* John Edward Harry Kelso, M.B., 67, Elm Grove, Southsea; William Tusting Cocking, M.D., 277, Glossop Road, Sheffield.

K.—Laryngology and Otology.

President: E. Cresswell Baber, M.B. *Vice-Presidents:* Josiah George Blackman, M.D.; Patrick Watson Williams, M.D. *Honorary Secretaries:* Herbert Tilley, M.D., 101, Harley Street, W.; Lyster Cole-Baker, M.D., Bayfield, Kent Road, Southsea; Thomas Arthur Munro Forde, M.R.C.S., 21, Clarence Parade, Southsea.

L.—Tropical Diseases.

President: George Thin, M.D. *Vice-Presidents:* Colonel Kenneth McLeod, M.D.; James Watson, M.D. *Honorary Secretaries:* Fleet-Surgeon John Tyndall, R.N., Tresco, St. Ronan's Road, Southsea; John Robert Stevenson Robertson, M.B., 5, Western Parade, Southsea.

Programme of Proceedings.

Tuesday, August 1st, 1899.

9.30 A.M.—Meeting of 1898-99 Council.
11.0 A.M.—Church Service; Sermon by the Right Reverend the Lord Bishop of Winchester, at St. Mary's Portsea.
2 P.M.—First General Meeting. Report of Council. Reports of Committees; and other business.
8.30 P.M.—Adjourned General Meeting from 2 P.M. President's Address.

Wednesday, August 2nd, 1899.

9.30 A.M.—Meeting of 1899-1900 Council.
10 A.M. to 1 P.M.—Sectional Meetings.
2.30 P.M.—Second General Meeting. Address in Medicine by Sir Richard Douglas Powell, Bart., M.D.

Thursday, August 3rd, 1899.

9.30 A.M.—Meeting of Council.
10 A.M. to 1 P.M.—Sectional Meetings.
2.30 P.M.—Third General Meeting. Address in Surgery by Professor Alexander Ogston, M.D.
7 P.M.—Public Dinner of the Association.

Friday, August 4th, 1899.

10 A.M. to 1 P.M.—Sectional Meetings.
2.30 P.M.—Concluding General Meeting.

Saturday, August 5th, 1899.
Excursions.

Honorary Local Secretaries.

C. C. Claremont, M.D., 57, Elm Grove, Southsea.
C. P. Ruel, M.R.C.S., L.R.C.P., Cromwell House, Kent Road, Southsea.

ANNUAL MUSEUM.

The Annual Museum in connection with the sixty-seventh meeting of the British Medical Association will be arranged in the following Sections:

Section A.—Food and drugs, including prepared foods, chemical and pharmaceutical preparations, etc.

Section B.—Instruments comprising medical and surgical instruments and appliances, electrical instruments, microscopes, etc.

Section C.—Books, including diagrams, charts, etc.

Section D.—Sanitary Appliances and Ambulances.

A fine and well-lighted hall will this year be utilised for the purposes of the Museum. This room is 150 feet in length, and 60 feet in width, and is in close proximity to the Reception Room.

Exhibitors (other than members of the medical profession) will be charged for table, floor and wall space as follows: In Sections A, B, and C, from 2s. 6d. per square foot, depending on the position of the table; tables 3 feet and 3 feet 6 inches wide being provided. In Section D, 6d. per square foot for floor space (all fittings to be provided by the exhibitor). Wall space (where available) will be charged for advertisements at 6d. per square foot. Section D will be held in the Swan Street Board School, a short distance from the Drill Hall.

Advertisements in Museum Catalogue.—A catalogue will be printed, and 2,000 distributed gratis to members of the Association. Prepaid advertisements, to be sent before June 20th, will be inserted. Further particulars will be sent on application.

The plans of the hall and forms of applications for space will be ready early in May.

Regulations.

1. All communications on general matters connected with the Museum, and all applications for space, should be addressed to Mr. James McGregor, 9, St. Mary's Crescent, Fratton Road, Portsmouth, before June 1st. N.B.—No space will be allotted before that date.

2. A brief description of each exhibit for insertion in the Museum Catalogue must be in the hands of the Secretary before June 20th.

3. Space will as far as possible be allotted in the order of application, and in proportion to the amount applied for, the Committee reserving power to give preference to *bonâ fide* inventions and improvements not previously exhibited, and also to refuse any exhibit they may consider unsuitable.

4. In the event of more space being applied for than is actually available, the allotment will be made at the discretion of the Committee.

5. The Committee reserve to themselves the power to utilise any of the floor space set apart for Section D (if it is not all required for sanitary exhibits) for the erection of additional tables, or for any other purpose they may think fit.

6. All exhibits should be addressed to the Secretaries of the Museum, British Medical Association, Drill Hall, Grigg Street, Portsmouth, with the name of the Section for which they are intended, with the exception of those for Section D, which should be addressed The Board School, Swan Street, Portsmouth. Packages should not be addressed to a firm's representative at the Museum.

7. All exhibits must be delivered between July 27th and July 29th, and each package must bear a card showing the name and address of the exhibitor.

8. All exhibits must be placed in the allotted space by 2 P.M. on July 31st.

9. No signs or placards will be allowed in the hall which may interfere with neighbouring exhibits. No exhibit or placard on the central tables must reach higher than 2 feet 6 inches from the table. The arrangement of signs, placards, exhibits, etc., will in every case be subjected to the approval of the Committee.

10. Intimation of the space allotted to each exhibitor will be sent as promptly as possible after June 1st, marked upon a plan. On receipt of cheque for the cost of such space, a card for the admission of the exhibit will be sent.

11. All cheques to be made payable to Mr. James McGregor, 9, St. Mary's Crescent, Fratton Road, Portsmouth.

12. No exhibits will be received except on the understanding that the above regulations are strictly complied with.

H. Rundle, F.R.C.S., *Chairman*,
13, Clarence Parade, Portsmouth.
R. Emmett, M.R.C.S., L.R.C.P.,
83, Kingston Road, Portsmouth.
James McGregor, L.R.C.P. & S.Edin.,
9, St. Mary's Crescent, Portsmouth.

Pathological Museum.

Specimens of interest for exhibition in the Museum should be forwarded, addressed to the Secretary of the Pathological Museum, British Medical Association, Boys' School, Seaman's and Marines' Orphan Home, Portsmouth, during the last week in July; and a brief description of each exhibit for insertion in the Museum catalogue must be in the hands of the Secretary by June 20th. Intending exhibitors are requested to communicate with the Secretary of the Pathological Museum, Staff-Surgeon L. Lloyd Thomas, R.N., Royal Naval Depôt, Portsmouth. All specimens must be mounted ready for exhibition.

SPECIAL CORRESPONDENCE.

PARIS.

The Prevention of Hospital Abuse.—Excursions to Watering Places.—The Abatement of the Smoke Nuisance.

Dr. Le Blond has sent to the "Union des Syndicats" the following proposals which are to be submitted to the Superior Council of the Public Assistance. Hospitals ought to be at the service only of the really poor. Paying patients should be domestic servants, or members of the working classes or employees whose wages do not exceed a certain limit to be fixed. Anyone paying £40 a year rent or paying for a licence is to be considered as not entitled to admission in a hospital. An exception to this rule would be made in favour of those who require serious surgical operations, and have not the means of paying the fee. An inquiry would be instituted in order to ascertain the position of the patient. In every district benevolent people would be appointed to undertake the task of inquiring into the pecuniary condition of patients desiring to be admitted into a hospital. Medical men attached to the Bureaux de Bienfaisance of each district would have the right to give tickets of admission to poor patients unable to pay who cannot be treated at home. After the patient has been admitted an inquiry will be made. Except in very urgent cases no patient will be admitted simply on application.

Dr. Carron de la Carrière has had the happy idea of organising for the benefit of medical men and medical students excursions to the different mineral water stations in France. These stations are classed in four divisions, as follows: (1) The Central Division: Auvergne, Pouges, Saint Honoré, Bourbon Aichambault, Héris, Vichy, Chatel-Guyon, Royat, Sanatorium de Durtol, La Bourboule, Mont-Dore, Saint Nectare. (2) The Southern: Pyrenees, Luchon, Capvern, Bagnières de Bigorre, Cauterets, Saint-Sauveur, Barèges, Pau, Eaux-Bonnes, Eaux-Chaudes, Salies de Béarn, Biarritz, Dax, Arcachon. (3) The South-East: Dauphiné, Savoie, Besançon, La Mouillère, Salins, Eiran, Saint-Gervais, Aix, Le Renard, Marlioz, Challes, Salins Moutier, Pralognan, Brides, Allevart, Uriage. (4) The Eastern Division: The Vosges, Bourbonne, Martigny, Contrexéville, Vittel, Gerardiner, Bussang, Luxeuil, Plombières, Pierrefonds, Enghien (Seine et Oise Department), Lamalou (Hérault), Bagnols Orne, Forges (Seine Inférrieure), Saint-Armand (Nord). These last mineral stations being dispersed about France, and isolated from other stations, cannot be attached to any group, but they will be included in the different itineraries. Each journey will be carefully planned before undertaking, in order to obtain as much instruction as possible in the twelve days devoted to these visits. The exact expense will be fixed, and the places to be visited each day will be determined. Medical men will thus have every facility for studying the therapeutics of mineral wells impossible to be studied anywhere but at the watering places. The first excursion will be organised for September, 1899.

For some time past the Police Prefecture has been occupied in enforcing the police regulations of June 22nd, 1898, concerning the smoke nuisance, by which it was forbidden to let thick black smoke escape over the city of Paris. Six months' grace was given to factory owners and others. No system of suppressing the smoke was enforced. The administration indicated to the persons concerned that the merimmated chimneys might be made higher, or special smokeless fuel used, or smoke-consuming apparatus used. A circular of July 4th, 1898, called upon the police to seek out in their districts those chimneys which did not conform to the regulations, and notify the same to the owners of the factories; 1,486 chimneys were reported. Two months' respite is allowed when these are issued. If the requisite improvement is not achieved proceedings will be taken.

GLASGOW.

Memorial to Professor Coats.—The Chair of Pathology.—The Prevention of Tuberculosis.

The loss which the medical profession in Glasgow and the West of Scotland has sustained by the death of Professor Joseph Coats is being recognised on all sides, and has already been publicly expressed at some of the learned societies with which he was connected. There is a feeling that some memorial of his life and work should be raised, and a meeting of some of his former colleagues, assistants, and professional friends was held last week to consider the institution of such a scheme. It has been agreed that the memorial shall take the form of a prize or scholarship to be called "the Joseph Coats Memorial Prize in Pathology," and an influential Committee has been appointed, with the Principal of the University as convener, to carry out the scheme. The sum aimed at is £1,000, and no doubt all the late Professor's friends will welcome this opportunity of showing their regard for his memory.

Interest is already being taken in the filling up of the vacancy that has been caused by Professor Coats's death. The Chair of Pathology occupies a different position from any of the other medical chairs in the University. Most of the professorships are in the gift of the Crown, while one or two are controlled directly by the University Court. But the work of the Professor of Pathology being closely connected with the Pathological Department of the Western Infirmary, where the class room and laboratory are, the Chair of Pathology, as was stated in the British Medical Journal of February 11th, is in the gift of a Board of Curators, of whom 4 are appointed by the University Court and 3 by the managers of the Western Infirmary. The new professor will be appointed in April in time to undertake the work of the summer session.

The objects of the National Association for the Prevention of Consumption and other forms of Tuberculosis are not being neglected in Glasgow, and the matter has been under the consideration of the Medico-Chirurgical Society. This Society has already drawn attention to tuberculosis and the duty of the sanitary authorities in regard to its prevention, and the Glasgow Health Department has done much in this direction under the able supervision of Dr. J. B. Russell. At present a Committee of the Medico-Chirurgical Society has been formed to confer with the other medical societies of the city, and to consider what action should be taken.

ABERDEEN.

The Royal Infirmary: Need for further Accommodation: the Financial Position: Consumptive Patients.—The Convalescent Hospital.—The Royal Asylum.

At the annual meeting of the Aberdeen Royal Infirmary and Lunatic Asylum Corporation, the Chairman of Directors, in presenting the report, drew attention to the fact that in spite of the increased accommodation which has been provided in late years by the new buildings, the number of patients requiring indoor treatment has so largely increased that already the space afforded is insufficient to meet the demand. The admissions for the past year have been 2,605 as against 2,038 five years ago. Special difficulty has been met in making provision for surgical patients, and the newly-founded department for diseases of women is already in need of more space. Although the total income for the year has been £1,000 in excess of last year, the accounts again show a deficit of considerably more than that sum, and the total debt of the institution now amounts to £23,640. That the expenditure has been kept down as far as possible is shown by the extremely low figure of £47 16s. as the cost per bed. In the past year, while some large sums have been received, notably from the Diamond Jubilee Fund and from the Hospital Saturday Fund, it is felt that the annual subscriptions have been very insufficient, and while some few country districts have had special collections for the institution, this practice should be far more extensively carried out than it is at present, considering the great services of the institution to country patients. The suggestion made at the meeting that a house-to-house collection should be instituted in the city met with approval from many. The Chairman, in dealing with the numerous cases of consumption treated in the hospital, drew attention to the importance of finding some means of making separate provision for these patients, and commended the matter to the serious attention of the public.

The new Convalescent Hospital at Pitfodels has done most excellent work in the past year, and with strict economy shows a small balance on the right side of the account.

At the Royal Asylum there has been a considerable increase in the number of admissions during the past year as compared with former years. Extensive additions to the building are being carried out, and while the present estimate for the completion of these improvements exceeds by some £19,000 that originally presented, it is hoped that the necessary sum may be provided for from the ordinary revenue of the institution.

BELFAST.

The Irish University Question: Resolutions adopted by Queen's College.—Letter from the Principal.

At a meeting of the Corporate Body of the Queen's College, Belfast, held on February 10th, the following resolutions were unanimously passed:

1. That in our opinion the present provision for university education in Ireland is unsatisfactory.
2. That it is desirable that all candidates for university degrees should have attended complete courses of lectures at a recognised college or institution.
3. That in any resettlement of the university system of Ireland it is essential that in this College provision should be made for the endowment of new chairs, especially those required to meet the particular needs of this community, for the appointment of assistants and demonstrators, for additional laboratories, for museums of science, art, and antiquities, for more liberal additions to the library, and for facilities of research. The want of these at present seriously impairs the efficiency and lowers the status of this College as a place of learning and education.
4. That in our opinion the higher education of the North of Ireland would be admirably served by the re-establishment of the old Queen's University on its former broad non-sectarian basis, with such modifications as would meet the altered circumstances of the case, but with its seat in Belfast, and with the provision of an adequate endowment.
5. We are of opinion that in the proposed new Queen's University it is essential to include Chairs of Philosophy and Modern History.
6. That copies of these resolutions be sent to His Excellency the Lord Lieutenant, the Chief Secretary, the Prime Minister, and the Leader of the House of Commons.

The President of the Queen's College contributes a long and able letter to the Belfast papers of February 11th, in which he forcibly demonstrates the inconvenience and injustice of the present university system, and argues in favour of a fresh settlement on the lines of the above resolutions.

> For the North of Ireland, what if we should have the old Queen's University, around which so many happy memories cluster, and which during its too brief life rendered such splendid service to the cause of Irish education, re-established—re-established with this difference, that its seat should be in Belfast instead of Dublin, which must not be allowed to monopolise everything; and with of course other changes which the lapse of the twenty years which have passed since its overthrow, and the experience thus gained would render necessary, but with no change in the broad, non-sectarian, academic basis on which it stood, and on which a true university must ever stand? Give the North of Ireland this, with of course an ample endowment, and what should we have? We should have an end put at once and for ever to the miserable state of things which for the last twenty years has harassed and depressed all engaged in university work here. We should have a university of the lowest type replaced by one of the highest, bearing an honoured name, with a splendid history of fifty years behind it, and governed by men of our own—men whose names at once rise to our minds when we think of the project. Belfast, now a city with over 300,000 inhabitants, would get, to its enormous advantage, what Birmingham, under the lead of Mr. Chamberlain, is now trying to obtain—a university of its own, with this difference, that what Birmingham is raising £100,000 to procure, Belfast would get for nothing.......Ulster would receive for its sons and daughters a university suited to the *genius loci*, which we might hope might do not only for her literary and scientific advancement, but for her manufactures, her commerce, and her agriculture, what the Scotch universities have done for Scotland, and the German for Germany, while Ireland would have a new and powerful element cast into the bitter waters of her national life, from the salutary and sweetening influences of which I am sanguine enough to hope for effects of the happiest kind.

It would be well if the opinions here expressed were carefully considered by those who view this thorny question from the point of view of religious or political partisanship.

Mexican Government and Yellow Fever.—According to the *Yale Medical Journal*, the Government of Mexico, after repeated scourges of yellow fever along its coast, has roused itself so far as to order an extensive system of sewers, and the carrying out of the latest American methods of sanitation at Vera Cruz and Merido, with the object of endeavouring to stamp out the scourge at these points.

CORRESPONDENCE.

THE GENERAL MEDICAL COUNCIL AND THE HUNTER CASE.

SIR,—The sublime is said to be very nigh to the ridiculous, and recent proceedings in the Divisional Court before Mr. Justice Lawrance and Mr. Justice Channell tend to support this adage. What is a physician? This is not a conundrum, but a serious question of law, which occupied the Divisional Court the best part of a day. We must assume it to be a matter of great importance, for were it not the General Medical Council would scarcely have fought the question up to the Divisional Court. It is true there are some disquieting rumours. We have it on so great an authority as Mr. Victor Horsley that the Council never authorised the prosecution of Mr. Hunter for calling himself a physician, never gave permission for counsel to contest the appeal. This, however, makes matters worse, and it will be interesting to observe the attitude taken by the Council on this question when it meets next May; but, in the meanwhile, it seems more reasonable to assume that the officials did not act altogether without warrant, and that their action does represent, at least, the policy of a certain section. It is therefore necessary to assume for the present that in the opinion of a majority of the Council the question as to what legally constitutes a "physician" is of paramount importance to the profession and the public.

Most people have been satisfied with the definition in standard dictionaries, and few medical men outside the Council thought there was any difficulty in comprehending the meaning of the word. A country practitioner, however, wrote to the Council to know what an L.S.A. since the Act of 1886 might style himself, and in his innocence he proffered the information that he had hitherto been in the habit of describing himself as "physician and surgeon." An alacrity was then shown in prosecuting him only too conspicuous by its absence in the Council's dealing with illicit medical practice. The rural justices were no doubt a little taken aback, but it was the General Medical Council that was prosecuting, and they were not long in becoming convinced that the ordinary meaning of the word "physician" was incorrect, and that it was their duty to convict the offender.

This was the first act of the drama, but a point of great importance to the Apothecaries' Society was involved, and that body stepped into the breach. The second act opened at the Royal Courts of Justice. In the place of country justices in Petty Sessions, two of Her Majesty's judges, sitting as a Divisional Court, were called upon to resolve the intricate question as to what a "physician" really was. After long arguments, often displaying ingenuity worthy of a better cause, and in which case after case was quoted, most having arisen before the Act of 1886, some before the Act of 1858, and one even going back to the classic time of Queen Anne, the requisite degree of obscurity was arrived at. As most of the cases had no bearing on the question, and those that had often flatly contradicted one another, it might have been hoped that the judges' decision would have been given in accordance with common sense without regard to any of them. But the fiat was that the magistrates' conviction of Hunter must be quashed on the ground that the offender had not acted wilfully, but that the "L.S.A." as such had no legal right to the title of "physician."

What will be the result of the present state of affairs it is difficult to forecast. There are a large number of Licentiates of the Apothecaries' Society practising throughout the country, and nearly all call themselves "physicians." It seems scarcely probable that they will unanimously bow to this decision. Even if the next case be taken up warmly by the Apothecaries' Society, and fought before every possible tribunal, constant litigation would seem to be the inevitable outlook. If ever the profession were justified in demanding an explanation from the General Medical Council, it has a right to know why these unfortunate proceedings against the late Mr. Hunter were ever undertaken. If the accounts given by certain authorities, who ought to know, are correct, no words would be too strong to condemn the way in which important business has been transacted by that body; but in common fairness the subject should be considered *sub judice* till after the meeting.

It may, however, be interesting to glance at some of the arguments and cases brought before the Divisional Court. Mr. Muir Mackenzie may be complimented on his laborious exploration of the lumber of medico-legal antiquities. Whether the facts he brought to light had any real bearing on the case in hand is another matter, and I must protest against the way some of the cases were used. In such a trial as this it is hardly justifiable for a counsel representing the General Medical Council to put forward all that supports his contention to the exclusion of all that tells against him. Take, for instance, the case of Royal College of Physicians *v.* Harrison. Harrison was a medical graduate of the University of Edinburgh, who was practising medicine in London without the licence of the College. The latter, after in vain trying to force the Scotch graduate to take their licence, sued him for infringing their charter. His defence was that he was practising surgery only, and even then it would appear there was some difficulty in defining the limitations of these Arts, so that the defence was very much to the point. Lord Tenterden summed up strongly against Harrison, but the jury refused to be convinced by his lordship's arguments, and found for the defendant. Mr. Muir Mackenzie did not point this out to the Court, and I would ask any reader of the report of the trial whether he would have understood this from the learned counsel's words.

Next as to Ellis *v.* Kelly. It was there decided that a registered practitioner with a foreign degree could not be convicted for falsely describing himself as a doctor of medicine; and Mr. Justice Channell intimated that that was his interpretation of the case. Mr. Muir Mackenzie then said: "I think your lordship should read that decision subject to the qualification in the later case of Andrews *v.* Styrap."

Now, what is this later case? Andrews, the delinquent here, was not a registered practitioner at all; so that the case had really no connection with the former one. Section XL of the Act of 1858 clearly applied to Andrews, for by using the title of "M.D." he implied he was on the *Medical Register*, which was not the fact. But the judges in Ellis *v.* Kelly rightly considered that Section XL was intended to protect the public against unregistered practitioners only, and refused to allow it to be used to prosecute a registered practitioner.

Then, again, as to R. *v.* Baker. Clearly this case had no authority, for the "L.S.A." there was one of the old order, licensed by the Apothecaries' Society before 1886, and it is almost incredible to find the standing counsel for the General Medical Council expressing ignorance as to whether or not the old L.S.A. diploma authorised the diplomate to practise surgery. Everyone who knows anything about the history of our licensing bodies is aware that till 1886 the Apothecaries' Society never gave any diploma in surgery; and, further, that the latter never would have had that power up to the present day could the General Medical Council have prevented it, so that it would seem that Mr. Muir Mackenzie has forgotten the litigation that took place on this subject between the Council and the Apothecaries' Society only a few years ago. Time would have been more profitably spent in mastering commonplace facts of this nature than in looking up such fossils as the College of Physicians *v.* Harrison, Blogg *v.* Pinkers, and College of Physicians *v.* Rose.

In the last case it might also be remarked that Mr. Muir Mackenzie did not tell the Court that the decision he referred to was afterwards reversed by the House of Lords. The College had sued an apothecary for practising as a physician because he had visited a patient and had then sent him the medicines he prescribed. This, it was argued, was an infringement of the College Charter (14, 15 H., 8, c. 5). It would appear, however, that the apothecary had not charged for his visit but only for his medicines, so that, although judgment was at first given for the College, it was reversed on appeal. One fact that stands out clearly in these old cases is that our ancestors paid more regard to what the practitioners of those days did than to what they called themselves. The point on which the old decisions turn is invariably one of practice. All the present proceedings have nothing whatever to do with practice.

It is curious to note the ignorance shown by the Bench of ordinary medical matters in the various trials that have taken place during recent years, dealing with the interpretation of the Medical Acts. Lord Coleridge, in R. *v.* Baker, pronounced dicta utterly at variance with the Act of 1886, and showed that he regarded "physician" and "M.D." as synonymous. In the latest case Mr. Justice Lawrance was under the impression that the College of Physicians could grant the degree of M.D. It is exceedingly difficult for medical men to feel proper respect for judgments, the authors of which seem to be so badly informed about what is common knowledge to most of them.

In conclusion I would urge that it is of paramount importance that the Medical Acts should be amended and simplified with the least possible delay, so that it may be made impossible for a judge to misunderstand them. As there is now only one kind of medical qualification recognised by the law, it is absurd to take exception to what a medical man calls himself if duly registered. It does not matter one iota to the public whether he styles himself "doctor," "physician," or "surgeon."—I am, etc.,

MAJOR GREENWOOD, M.D.Brux., LL.B.Lond.,
Hackney Road, N.E., Feb. 15th. Barrister-at-law.

MIDWIVES BILL.

SIR,—I think it necessary to explain my reasons for seconding Mr. Brown's motion "to recommend the Council to oppose the Midwives Bill," as the few hurried remarks I made are somewhat misleading.

The statement that "I came from an agricultural district where the members of the medical profession were the professional rivals of the midwives" was meant to be a somewhat indignant reply to an objection made by, I think, Dr. Woodcock, to a proposition that the local supervision of midwives should be entrusted to the Rural District Council instead of the County Council—namely, "that the medical officers were often professional rivals of the midwives, and would be unfitted thereby to supervise them."

My reasons for protesting against the Midwives Bill are:

1. That whenever the question has been brought before the general meeting of the Association the members present have always voted against midwives' registration, while recognising the need of trained midwifery nurses to attend the poorer classes during the lying-in period, and competent to attend a case of natural labour or emergency pending the arrival of the medical practitioner, and until that vote has been reversed the Council and Parliamentary Bills Committee should act in accordance with the wishes and directions of their constituents.

2. That every woman should have skilled medical attendance at childbirth. This is provided for the pauper class by the Poor Law, and the guardians are empowered to grant orders on loan to all those who cannot afford to pay the medical fees.

3. That the restriction of midwives' practice to natural cases is, at any rate in country districts, useless as a protection to the patient, as hours must often elapse before the medical practitioner could arrive, and often the serious emergency, and the patient, would then have passed away.

4. That so many cases would be attended by midwives that the younger practitioners would not be able to obtain that skill and proficiency in midwifery which can only be attained by experience and practice, and not only would they lose a good part of their income, but the general public would suffer by their want of experience, and probably the whole practice of midwifery pass into the hands of the midwives and a few specialists.

5. That it would be a retrograde step, and would, notwithstanding all proposed safeguards, set up an inferior order of practitioners, who would eventually take the place of the unqualified assistant, and many struggling men who are employing qualified assistants would be unable to retain their services, and practices would be further cut up and underselling increased.

6. That there would be no difficulty in providing medical attendance for every woman in the present overstocked condition of the profession, as it would only give about 40 cases to each medical man per annum, and many men do five times that number.

In conclusion, I would express my entire agreement with the remarks made by Mr. G. Brown, Dr. Groves, and Dr. Major Greenwood, and, while fully recognising Mr. Victor Horsley's great ability and his energetic and unselfish work for the best interests of the profession generally and the general practitioner in particular, would venture to hope that, after thirty years' practice in a rural district, I may be permitted to give my opinion, although not quite in accordance with his six months' experience.

Knowing as I do by bitter experience the hard life and unending anxieties of the struggling doctor, the insults and impertinences he has to endure patiently, and the persecutions he has often to fight against, I feel bound to make my feeble protest against any measure which will make his position more unendurable. I see in the BRITISH MEDICAL JOURNAL of February 11th a list of 21 practices for sale, only 2 over £400 gross, while over 1,000 purchasers' names are on the books of the same firm of agents. Surely we shall soon want a "Poor Doctor's Fund."—I am, etc.,

Wimborne, Feb. 13th. C. H. WATTS PARKINSON.

THE MIDWIVES' INSTITUTE AND THE MIDWIVES BILL.

SIR,—I see that the Midwives' Institute is credited with the production of the Midwives Bill. May I ask to be allowed to state that the Midwives Bill Committee consists of about forty members, only two of whom represent the Midwives' Institute; the rest of the Committee is composed of representatives of the medical profession (14), the legal profession (4), Parliament (11), and various public bodies, political and philanthropic (6).

It will therefore be seen that it is quite incorrect to speak of the Bill as "a Bill of the Midwives' Institute." The misapprehension has most likely arisen owing to the Midwives Bill Committee holding its meetings in the same building in which the Midwives' Institute has its offices.—I am, etc.,

Buckingham Street, W.C., J. WILSON,
Feb. 12th. President of the Midwives' Institute.

OÖPHORECTOMY FOR MAMMARY CANCER.

SIR,—In his recent article on oöphorectomy for mammary cancer, which appeared in the BRITISH MEDICAL JOURNAL of February 4th, Mr. Stanley Boyd has made reference on more than one occasion to a case that I showed at the meeting of the Edinburgh Medico-Chirurgical Society in illustration of this line of treatment. This seems a suitable opportunity to mention her present condition, and to give a brief summary of her case since the oöphorectomy on June 15th, 1895.

On May 20th, 1896, the patient was shown at the meeting of the Edinburgh Medico-Chirurgical Society, and at that date she was apparently in excellent health, with a sound cicatrix and healthy thoracic tissues, all traces of malignant disease having disappeared locally. This satisfactory condition of things continued until July, 1897, when two small nodules made their appearance in a situation where cancerous tissue had previously existed, but had disappeared subsequent to the oöphorectomy and the use of thyroid extract. These nodules slowly increased, and in October one of them was removed, and microscopic examination of it revealed the structure of a typical scirrhus. The other nodule was left. At the present it has somewhat diminished in size, and no fresh nodules have appeared in or near the cicatrix. In the right breast, however, at its upper and inner quadrant, a small, hard mass can be felt, and below the left clavicle the infraclavicular hollow is occupied by a hard swelling in the neighbourhood of the first rib. For about twelve months the patient has complained of her back, and this has been accompanied by a change in the vertebral column, which now presents in the lower cervical and upper dorsal regions a curvature not unlike that seen in Pott's disease. There is no evidence of any lung or pleural infection, and the patient's general appearance is that of a healthy woman. To me the point of interest in the case is the reappearance of malignant disease in a situation where it had previously disappeared, and further that this recurrence, contrary to all experience, should have again shown no sign of further increase.

In a communication such as this, I cannot attempt to discuss the various points raised by Mr. Boyd in his paper, but I hope to allude to them in a further communication that I propose to make on this subject.—I am, etc.,

Glasgow, Feb. 9th. GEORGE THOMAS BEATSON.

THE SURGICAL AID SOCIETY AND ITS METHODS.

Sir,—Most surgeons are under the impression that this body has for its object the providing of surgical apparatus to the poor, chiefly hospital patients, on the recommendation or certificate of a surgeon only as stated in their advertisements.

The following incident, which has recently occurred, and which I am led to believe is not an isolated case, shows how grievously their confidence may be misplaced, and requires an explanation from the Society.

A little child, a patient of mine at the Children's Hospital, Shadwell, was recommended to get an apparatus by me, and the requisite number of letters was collected. A lady interested in the child's welfare, and who originally asked me to see her, took her up to Salisbury Square, and was there told by an elderly official that the doctor had ordered quite the wrong thing. She was advised to see another surgeon, and sent away with a printed paper bearing the name of a surgeon to the National Orthopædic Hospital, Great Portland Street, with the cheering prospect of getting much more efficient treatment. Fortunately she refused to be cajoled by any such seductive offer, and returned to me with the document.

The first question I would ask is, Does the Society provide apparatus as they state on the recommendation of any surgeon? If they do not, then let the profession openly know that it is provided only subject to the approval of a specialist. What is absolutely indefensible is the flagrant attempt to divert patients from one surgeon to another, to say nothing of destroying the patient's confidence by the delicate suggestion of his incompetence.

As this is a matter of great importance to hospital surgeons, I trust you may find space for this letter in your valuable Journal.—I am, etc.,

Upper Wimpole Street, W., Feb. 13th. Hy. Betham Robinson.

THE VISION OF SCHOOL CHILDREN.

Sir,—Dr. J. Acworth Menzies published in the Journal of January 14th a series of tables setting forth percentages of normal and abnormal vision in school children, and he refers to previous publications by others. I wish to call serious attention to the subject from another point of view.

Like Dr. Menzies I investigated the eyesight of a large number of children attending Board schools, but the tables which I submit for criticism are based upon one school alone (a girls' school of higher grade) because in that school I was better able to have the tests checked than in any other.

	Number Tested.	Passes.	Failures.	Percentage of Failures.	Analysis of Failures. Sub-normal.		Defective.					Percentage.	
					$\frac{20}{30}$ one eye.	$\frac{20}{30}$ two eyes.	$\frac{20}{40}$ one eye.	$\frac{20}{40}$ two eyes.	$\frac{20}{40}$ (·) $\frac{20}{30}$	< $\frac{20}{40}$ one eye.	< $\frac{20}{40}$ two eyes.	Subnormal.	Defective.
Standard I.	29	10	19	65.5	...	14	...	5	...	...	...	48.3	17.2
" II.	44	31	13	29.5	1	4	...	3	...	2	3	11.3	18.2
" III.	44	32	12	27.2	1	1	...	1	2	2	5	4.5	22.7
" IV.	54	39	15	27.7	1	4	...	1	...	...	9	9.2	18.5
" V.	66	41	25	37.9	1	11	...	2	...	...	11	18.2	19.7
" VI.	45	23	22	48.8	...	10	2 ?	1	...	...	9	22.2	26.6
" VII.	31	10	21	67.7	1	10	...	...	...	...	10	35.5	32.2
" Ex-VII.	5	1	4	80.0	...	...	...	...	...	...	4	...	80.0
Totals	318	187	131	41.1	5	54	2	13	2	4	51	18.5	22.6

This table shows nothing as to hypermetropia or myopia, but simply inability to read the type at the normal distances.

I proceed to quote from my report to the School Board:

At this school every child in attendance was tested; every case of failure was re-tested by the teacher, sometimes three times, and I personally tested about 30 per cent. of the cases of failure.

The results are remarkable, and, if confirmed by further investigations, form a heavy indictment against the present system of education in its effects on the eyesight of children.

It is important to observe that the head mistress states that but few of these children have attended infants' schools. They come, therefore, with untrained and unstrained eyes.

This school being one where fees are paid, it is reasonable to suppose that at least average care is taken of the children by their parents, and that such factors as malnutrition do not seriously invalidate our results.

These untrained and unstrained children on first coming to the school show a high percentage (65.5 per cent.) of subnormal vision. But investigation shows that 48 per cent. are but slightly subnormal, and are probably, many of them, cases of inaccuracy rather than of actual defect, and only 17 per cent. are downright defective.

At any rate the second and third standards show progressive improvement in sight, or at least a diminution in the total percentage of failures, and also in the percentage of cases of slight defect; but apparently in Standard III we have reached our best results. The eyes have been trained, and as yet show little evidence of strain.

Standard IV tells another tale. From this standard onwards not only does the ratio of thoroughly "defective" cases increase steadily, but also that of merely "subnormal" cases, till in Standard VII the total percentage of failure is higher than that in Standard I, half the cases being "defective" and half "subnormal."

I should state here that I have drawn the distinction in this way: I have estimated as "subnormal" only cases which get $\frac{20}{30}$ with one or both eyes, any cases which get less than that with one or both eyes I have grouped as "defective."

In Standard I no child had vision less than $\frac{20}{40}$.

The extraordinary percentage of failure in Standard VII (80.0) admits of a special explanation:

These children are shortsighted; and whereas healthy children are glad to leave school as early as may be, those with short sight take pleasure in books and fine work, for which their eyes are well adapted, and therefore are willing to stay on at school.

I wish to state that I had no expectation whatever that the evidence would tend to this result. I had no theory of my own on the subject. I did rather expect to find evidence to show that the malnutrition of the poorer children affected their vision, but I do not find this hypothesis supported by facts.

Recommendations.

The great thing is to avoid strain. To this end all work which is a trial to the eyes should be abolished, or at least carried on under the best possible conditions as to light and ventilation, and for only very brief consecutive periods. The law of development is "First general then particular:" but the modern child is set down to needlework, writing, figures, and the reading of small type at an age when its eyes are quite unfit for the strain of "accommodation" for prolonged periods. And, as if this were not bad enough, we have adopted from the myopic Germans their kindergarten system, much of which may be useful, but much of which is calculated to severely tax the soundest eyes, and is a simple abomination for those which are sensitive to strain. Of all standards the infants require the most perfect light in their class rooms. If once the eyes begin to yield under the strain of work in a bad light, hardly the best possible conditions can arrest the tendency. On the other hand, every year spent without putting the eyes to a strain diminishes the risk of such damage. If gas or other artificial light is unavoidable at certain hours, as is constantly the case in winter afternoons, let the lessons be so arranged that singing, or other exercises which do not tax the eyesight, may be given when the light is bad.—I am, yours faithfully,

Tottenham. A. Ogier Ward.

A DEGREE FOR DOUBLY QUALIFIED MEN.

Sir,—I fully endorse the letter of "A University Graduate" in the British Medical Journal of February 4th. It is a glaring injustice that we diplomates of the two great London Colleges are compelled to style ourselves "Mr.," while other men, by the lucky accident of their having been educated in Scotland or Ireland, are styled "Dr." People often say to me, "Why don't you do some more study so as to become an M.D. like Dr. Blank"—referring to a Scotch or Irish graduate.

Since I became qualified ten years ago, there has been much talk of a Teaching University for London, to which the Colleges of Physicians and Surgeons would be in some way affiliated, in order that their diplomates may obtain the degree of M.D., with or without further examination. But nothing has been done. I cannot understand why these two Colleges do not move in this matter, for they must see that men prefer to go to Scotch and Irish Universities, where by passing an examination of the same calibre as their own they become "Dr." I may mention in this connection that some years ago I applied for an appointment, and was told that the chief objection to me was that I was not an M.D., as "it looked better."

I, like many others, was when in my teens and before I properly understood these matters, placed by my parents at an English medical school, and began to study for the London Colleges because three-fourths of the other students did so. Now I can only obtain a degree in this country by waiting till I am 40 years of age, and then reading for the M.D. Durham for practitioners of fifteen years' standing—that is, if I can find the necessary time without neglecting my practice. Suppose I were to obtain a foreign M.D., will you or any of your readers kindly tell me if there is any legal or other objection to my styling myself M.D. on my doorplate or billheads?—I am, etc.,

February 10th. M.R.C.S., L.R.C.P.

SIR,—It is difficult to follow the logic of the arguments which your correspondent "A University Graduate" employs in his letter on the above subject in the BRITISH MEDICAL JOURNAL of February 4th. He apparently contends that it is only those who are "canny" or "cute" who obtain their medical qualifications from the universities, while those who lack these qualities are content with "licences to practise." He further suggests that those who have them should "water the capital" of their licences by obtaining the title of M.D., etc., from the Royal Colleges, and so have their lack of "cuteness" condoned by the higher authorities.

His main argument seems to be that the examinations for the R.C.S. and R.C.P. are at least equal to those for the degrees of "some" universities, and that the students who pass through the former deserve the M.B. equally with those who obtain the latter. Still each man selects his "school of medicine" with his eyes open.

The number of Royal Colleges proportionately to Universities in both Ireland and Scotland is greater than in England, particularly so in Ireland, where there are two universities and three licensing bodies. Your correspondent is quite wrong when he states that "four-fifths of Irish-born or educated medical men hold university degrees," as it is a well-known fact in the Irish schools that the majority seek licences. Further, in ordinary fairness, he should have mentioned with what universities he compared the Royal Colleges of England, and his remark about "watering the capital" is quite unjustified. I cannot help thinking that "A University Graduate" is, to say the least, excessively chivalrous when he desires to bestow "the gown and hood galore" on all his fellow practitioners who boast of a licence to practise medicine and surgery; as, of course, the Royal Colleges of Scotland and Ireland would also desire, and could not well be denied that privilege.—I am, etc.,

February 14th. M.B.

THE COEXISTENCE OF ZYMOTIC DISEASES.

SIR,—Your columns within the past few weeks have been open to the noting of various cases of coexisting diseases. I am able to give particulars of two cases occurring in practice during the past year—namely, measles and pertussis, varicella and scarlet fever.

In October, 1898, I was attending H. P., aged 17 months, female, for pertussis, then in the third week, with violent paroxysms. Measles was prevalent in the house, four brothers and sisters being affected; isolation was imperfect. On October 18th the child had the initial symptoms of measles, coryza, lachrymation, etc., and the next day a typical eruption of measles appeared on face and body. This all disappeared in the course of a week, but the cough still persisted, retaining its characteristic whoop until the sixth week, when it ultimately yielded; the child is now in perfect health.

On August 19th, 1898, I saw B. G., a boy aged 14 months, then covered with a profuse vesicular eruption having all the characteristics of varicella; he was also feverish, and his throat was inflamed. Next day the vesicles had all disappeared, and instead was an extensive punctiform rash on the body and limbs of the child, with high temperature, throat still more inflamed and swollen; recovery was rapid and uneventful, and desquamation profuse.—I am, etc.,

Haulbowline, Jan. 29th. F. C. FITZGERALD.

OBITUARY.

THOMAS COOKE, F.R.C.S.ENG., M.D. AND B.SC.PARIS.

WE recorded with deep regret last week the sudden death of Mr. Cooke on February 8th, in his 58th year. He was the only son of John Hawley Cooke, and was born in America in 1841. He crossed the Atlantic in early infancy, and was brought up in Paris. As his father objected to send him to school, at 13 he betook himself thither, himself making all arrangements with the schoolmaster. He commenced his medical studies also in Paris, taking B.A. and B.Sc. in 1862, and the M.D. degree in 1870. He was House-Surgeon in turn to the five following hospitals: Bicêtre, Ste. Eugénie, St. Louis, Lariboisière, and Le Midi, and Demonstrator of Anatomy in the École Pratique de la Faculté de Medecine. He was in Paris during part of the siege, and experienced great hardships. He came over to England in 1870, became M.R.C.S. in January, and F.R.C.S. in May, 1871, and was that same year appointed Demonstrator of Anatomy and Physiology to the medical school of Westminster Hospital. He retained the post until 1875. He was also Assistant-Surgeon to the hospital for many years, and at the time of his death was Surgeon to out-patients in the same institution.

In 1870, Mr. Cooke founded the London School of Anatomy and Physiology, which he thenceforward conducted up to the time of his death. He was constantly animated by the earnest desire to provide his students with a "knowledge of anatomy derived from individual practical examination of the human body, and investigations which the student can himself repeat, as opposed to scientific abstractions." He started with some two or three pupils, but by dint of never-tiring energy he raised the number until his school came to hold a perfectly unique position in the United Kingdom as the only private medical school licensed to keep a dissecting room, and recognised to take students during the curriculum. He was ever at pains to further the progress of his pupils, and endeared himself to them by his kindly manner and ready sympathy with their work. The ideal which he sought to inculcate inspired his men with a lofty conception of their profession, and encouraged them to persevere in honest practical work. Some of the best-known teachers in the profession were among his students. At the time of his death he was able to "sign up" his pupils for the Universities of London and Durham, the Colleges of Physicians and Surgeons, and the Society of Apothecaries.

Mr. Cooke contributed both to English and French medical literature. Among his works were *Aphorisms in Applied Anatomy and Operative Surgery; Dissection Guides; A Plea for Practical Work in Anatomy; Esquisse d'une Anatomie Opératoire*, and several other similar productions. He also contributed to periodical literature articles on Suspension by the Head in Sayre's Treatment of Spinal Curvature,[1] Treatment of Strumous Abscess of the Neck,[2] Alcohol as an Antiseptic for Dressings,[3] as well as many other papers.

Mr. Cooke married in 1870, and has left three sons, one of whom is following his father in the medical profession; also two daughters, one of whom is a staff nurse at St. Bartholomew's Hospital. He was a fervent Christian, and an incessant worker for his school and his pupils, being always up at 6.30 A.M., though he seldom retired before midnight, and rarely took any recreation. He seemed, in fact, to have lately undermined his strength, and had suffered from angina pectoris. In the morning of February 8th he had delivered his lecture as usual, and was demonstrating in the dissecting room, when a sudden fatal seizure occurred.

The funeral took place at Kensal Green on February 13th, and was attended by a large number of his former pupils.

Mr. J. BLAND SUTTON, F.R.C.S., writes as follows: Mr. Thomas Cooke was a man for whom I entertained deep respect. He was the first anatomist with whom I came in contact on beginning my medical studies in April, 1878. At that period dissections were not encouraged in the regular London schools of anatomy during the summer, but, thoroughly aware of the deep importance of a sound knowledge of anatomy, I entered for a six months' course at Cooke's well-known room. His objective methods of teaching appealed to me, and his intense enthusiasm for human anatomy was so contagious, that I look back with the greatest pleasure to his vivid and inspiring demonstrations. His method consisted in exhibiting the chief anatomical points on the dissected subject in strict relationship through a series of demonstrations lasting three months. In order to do this with advantage it was necessary that the students attending the class should be familiar with the chief details of human anatomy. As a result, when the class was good there was a brisk round of question and answer for an hour, enlivened with sallies of wit and repartee, often of a brilliant, kind which delighted me.

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[1] *Lancet*, 1879.
[2] BRITISH MEDICAL JOURNAL, 1876.
[3] *Practitioner*, 1873.

Cooke was extremely anxious that I should become his demonstrator, and when he found my goal was surgery he kindly used his influence with Mr. Henry Morris, who, solely on Mr. Cooke's recommendation, made me a prosector and demonstrator at the Middlesex Hospital, and he was thus the means of initiating a friendship with one for whom I have ever since entertained the highest respect, and which has been attended with great and good consequences to me.

It is too true that Cooke in recent years felt that I have been in a measure responsible for leading students to "mix morphology with plain anatomy," and thereby made them impatient of mastering the details of anatomy in the dissecting room. However, a few years ago I felt deeply honoured when my old master attended my morphology class and became enamoured with the new order of things, or, as he humorously termed it, "the fairy morphology," and the last edition of his famous *Tablets* shows clearly enough that he was on the eve of conversion.

It is usual to speak of my friend as a "grinder," inasmuch as he taught men for examinations; he was a coach, but he taught in such an objective and real way that I regard him as one of the best teachers of human anatomy with whom I have come in contact, and there are hundreds of men in England and in the British Empire who are under deep obligation to Thomas Cooke for the real knowledge which he imparted in the pleasantest manner in his quadrilateral building of corrugated iron in a disused cemetery.

That he should be seized with his fatal illness and die in the room where he worked and taught is as impressive as the tragic end of Molière. Fitzgerald translates a quatrain of Omar thus:

> 'Tis all a chequer-board of nights and days,
> Where destiny with men for pieces plays;
> Hither and thither moves and mates and slays,
> And one by one back in the closet lays.

For me destiny has removed from my chequer-board a man who largely influenced my play in life, and I doubt if I shall meet his like again.

CHARLES ARTHUR DIXON, M.R.C.S.ENG., L.R.C.P.LOND.

IT was with great regret that the members of the medical profession in Leeds, as well as a large circle of friends, heard of the death of Mr. Charles A. Dixon at the early age of 29. Mr. Dixon's health began to fail in the middle of last year, when he suffered from a blood-stained pleural effusion, and later from hæmoptysis. In December last, after being entertained at a farewell dinner by his more intimate friends in the profession, he left for South Africa. When he arrived there his health became so much worse that he soon returned, and landed at Southampton on February 3rd. Here he was met by Mr. W. H. Brown and Mr. W. A. Stott of Leeds. He was found to be so seriously ill that it was unwise to remove him, and he rapidly succumbed to an increasing dyspnœa on February 6th.

Mr. Dixon was an exceptionally good student in the Leeds School of Medicine, where he carried off several prizes. After taking his diploma in 1891, he worked with Mr. Pridgin Teale for eighteen months, and then served for a year as a Resident Medical Officer at the Leeds Public Dispensary, where he gave great satisfaction to all concerned. After this he commenced practice in Leeds, and soon attained a very considerable success. During his student days Mr. Dixon also passed the intermediate M.B.Lond. examination, and was vigorously preparing himself for the last part of the M.B.Vict. before the commencement of his fatal illness. No doubt this work along with that of his practice helped to precipitate his breakdown in health.

The kindliness of his disposition, the evenness of his temper, and his straightforward honesty of purpose endeared him to all who came into contact with him. Such characteristics, combined with a sound knowledge of his professional work, marked him out early as one assured of success, and his loss is deplored by all who were fortunate enough to know him.

JAMES ARMSTRONG McDONAGH, F.R.C.S., ETC.

WE regret to have to record the death on February 10th of this old and much-respected general practitioner, aged 79 years. Mr. McDonagh was the son of the late Dr. McDonagh, of Ranelagh County, Dublin, was educated at Trinity College, Dublin, Member of the College of Surgeons of England 1842, Fellow 1873, was also Licentiate of the Apothecaries' Hall and Licentiate of Midwifery, Dublin, and for some time Lecturer in Anatomy in the School of Medicine of the Apothecaries' Hall of Ireland, and a member of the Court of Examiners of that institution.

In the early part of his career he served as Surgeon in the Cunard Company's service, and was also attached to the Crimean Expedition as Civil Surgeon. For a considerable number of years he was engaged in general practice in the Hampstead district, and endeared himself to a very large circle of friends, owing to his genial manners and extensive fund of information on general and social subjects. He had retired from practice for ten years, and afterwards for some time resident in Parliament Hill, Hampstead. He took much interest in local affairs, and was for some years a very active member of the Hampstead Vestry. Mr. McDonagh was thrice married, and had a family of two sons and a daughter by the first wife, one son only surviving.

Mr. McDonagh was for many years a member of the British Medical Association and of many of the medical societies of London.

DR. DUMONTPALLIER, the distinguished Paris physician, who recently died at the age of 72, was born at Honfleur, and studied medicine in Paris. He obtained the much-coveted prize of the Internat in 1856, and in 1857 took his degree with a thesis on Purulent Infection and Putrid Infection after Delivery. From 1861 to 1863 he was Trousseau's *Chef de Clinique* at the Hôtel Dieu, and had a considerable share in arranging the great clinician's lectures for publication. In 1886 he became Physician to the Paris Hospital. During the Commune in 1870 he organised a service for the assistance of the wounded at La Pitié. In 1875 the Académie de Médecine awarded him a prize for a paper entitled A Contribution to the Study of the Anomalies of the Vaccinal Eruption. He was *décoré* many years ago, and was promoted to be an Officer of the Legion of Honour in 1884. He was elected a member of the Academy of Medicine in 1892. Dumontpallier was a most successful teacher, and first at La Pitié and afterwards at the Hôtel Dieu his clinical lectures on Gynæcology were largely attended. He was an indefatigable worker, and took an active part in the scientific work of several societies. He was perpetual Secretary of the Society of Biology, a past President of the Société Médicale des Hôpitaux, and perpetual President of the Society of Hypnology and Psychological Medicine. His work ranged over the whole province of medicine, but he took special interest in Gynæcology, Hypnotism, and Neuropathology. He was a member of the Committee of the Society of Biology, the other members of which were Charcot and Luys, who examined the metallotherapeutical experiments of Burq, and reported favourably thereon. He was the founder of the Société d'Hypnologie. Dumontpallier made many ingenious additions to gynæcological and general therapeutics. He was a conscientious and straightforward man, and in nothing showed those qualities more conspicuously than in his investigations of transference of sensation and other matters in the "misty mid-region," where nervous disease and imposture are mingled in varying and perplexing proportions.

BY the death of Dr. THOMAS JONES, of Preston Grange, Bournemouth, which occurred on January 25th at the age of 60, the medical profession has lost one of those men who in their own comparatively narrow sphere do more good and shed more lustre on their profession than many who bulk larger in the world's eye. He received his medical training at St. Bartholomew's Hospital and was admitted a member of the Royal College of Surgeons of England and a Licentiate of the Society of Apothecaries in 1860. His early career was spent on the Gold Coast, where he remained nearly five years. When he left there was no European of the same standing as himself in the Colony. His own power of endurance he attributed to his having plenty of work, not only in his medical capacity but from time to time, through the invaliding or death of other Government officials, as Colonial Treasurer, Colonial Secretary, Collector of Customs, Postmaster-General, and Coroner; for a time on two occasions he administered the Government of the Colony. Subsequently Dr. Jones saw much service in India and China. Some twenty years ago he gave up his colonial practice and settled down at Mansfield, where he soon formed a large circle of friends. Failing health, however, compelled him to take up his residence in Bournemouth, where he has resided for this last two years. He had suffered for some time from Bright's disease and latterly extensive dropsy accompanied with heart disease, the end coming very suddenly. Dr. Jones was the author of "Medical Reports on the Gold Coast," 1867-70, *Parliamentary Reports H.M. Colonial Possessions;* "Notes from the Gold Coast, especially on the Non-Coincidence of Dysentery and Hepatic Abscess," *St. Bartholomew's Hospital Reports*, vol. xi, etc.

STAFF-SURGEON HENRY S. JACKSON, R.N., died at his residence, Royal Naval Hospital, Chatham, of double pneumonia on January 23rd, at the age of 41. He received his medical education at Trinity College, Dublin, and at the Medical School of the Royal College of Surgeons in Dublin. He obtained the diplomas of L.R.C.P.Edin. and L.M. in 1878, and entered the Royal Navy as Surgeon in 1882. He was promoted to the rank of Staff-Surgeon in 1894. He became a Fellow of the Royal College of Surgeons in Ireland in 1891. Mr. Jackson was an enthusiastic surgeon and devoted to his duties. His loss will be deeply felt by the service to which he belonged.

WE regret to record the death of Dr. GIFFORD RANSFORD, at the age of 55, at Sussex Square, Hyde Park, on February 12th. He was born at Clinton, Canada, in 1844, and came to England in early childhood. He received his medical education at St. George's Hospital, where he finally held the appointment of House-Surgeon. He qualified as M.R.C.S. in 1865 and L.R.C.P. in 1866, and graduated M.D.Durh. in 1885. In 1869 he joined the late Mr. John Morgan, of Sussex Place, Hyde Park, the partnership continuing for three years. Subsequently he had a wide circle of patients in the West End of London, by whom his death is keenly felt as a direct personal loss. Dr. Ransford was a member of the Clinical Society, but rarely appeared at its meetings. Nor, after he once started in practice, did he ever occupy any public post in the profession. He devoted himself to practice alone, and was rewarded by a marked success. A fortnight ago Dr. Ransford, who had been ailing for some time, was seized with severe illness, which, notwithstanding the constant and devoted attention and skill of Sir William Broadbent and other medical friends, proved fatal. The funeral took place at Hampstead Cemetery on February 15th.

BY the death of ALEXANDER WALKER, M.D.Aberd., which took place on February 1st, from pneumonia, the district of Newton Heath, Manchester, has lost a man who will not easily be replaced. Dr. Walker was in his usual health, and attended to his patients up to 8 P.M. on January 28th, when his illness commenced with severe rigors. Dr. Walker graduated in 1870 with highest honours. His first appointment was at the County Asylum, Aberdeen. He then went to Whaley Bridge, where he took charge of a branch practice, and his services were so esteemed that on leaving about two years afterwards he was presented with a testimonial and a purse of 60 sovereigns. From Whaley Bridge he migrated to the district in which he has since practised for the last twenty-five years. A shrewd and close observer, and overflowing with genial wit and kindliness, Dr. Walker established and maintained himself in the confidence and affection of a large *clientèle*. He was an assiduous student of medical literature, and his knowledge of his art was both extensive and ready. He was indeed an excellent example of the fact that general practice absorbs much of the best intellect of the profession. His interests were, however, by no means confined to medicine, and his ardent temperament drew him into a variety of movements. A vehement freethinker and Home Ruler, he pursued a vigorous propaganda, lightened by the saving gift of humour. No tale of distress or injustice failed to move him to impetuous sympathy and activity. Thus he was not rarely regarded kindly by those who differed from his views. A striking feature of his character was the eagerness with which he seized every opportunity of extending his hospitality and assistance to young men entering on a professional career. He leaves a record of conscientious and unstinted professional work, performed with zeal and knowledge.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. Josef Maschka, sometime Professor of Forensic Medicine in the University of Prague, aged 79; and Dr. G. Vlakovich, Professor of Anatomy in the University of Padua.

ROYAL NAVY AND ARMY MILITARY SERVICES.

MEDICAL AND SANITARY REFORM IN INDIA.

THIS is the title of an anonymous pamphlet,[1] written, we understand, by an Indian medical (European) officer, which has had considerable circulation in India. It suggests and advocates reforms in the medical and sanitary administration of our great dependency in certain directions. In some parts of his pamphlet the author writes in a style perhaps needlessly aggressive; and occasionally shows scant consideration for that service, age, and seniority which, we trust, he will himself attain in due course. Still his forcible observations merit the attention of all who have the welfare of a great and noble public department at heart. He draws attention in a direct and lucid manner to certain shortcomings, both administrative and executive, in the Indian Medical Service; and anyone who looks into the matter must conclude that some recasting of it seems to be necessary, although into what form or mould is a difficult matter to decide, and one requiring much local knowledge. It is, moreover, a matter as to which considerable divergence in opinion is likely to develop.

The question as it stands may be broadly reviewed under the following two affirmative propositions:

1. The needs of Indian civil administration are alleged to have outgrown the capabilities of the quasi-military medical service as constituted.
2. The advance of medical science has unquestionably outdistanced Indian sanitary administration as it exists.

Two recent occurrences may be cited in support of these propositions. First, the serious dislocation in both civil and military duties caused by the late frontier war; secondly, the urgent necessity of importing outside aid in dealing with the plague. Had the medical service been on a really comprehensive and efficient basis, neither of these disturbing causes would have produced such overpressure as actually arose, nor so readily exposed deficiencies both in organisation and establishment. From these facts it is argued that the wants of India have outgrown existing medical provisions, and that some change is demanded. We trust, however, whatever changes may be made, they may not be such as would break the continuity of a noble service with a glorious past.

The original and now existing constitution of the Indian Medical Service may be stated as follows: The officers in its commissioned ranks were at first necessarily wholly Europeans, and it was established on a military basis. The requirements of civil government, however, soon led to a "lending" of a portion of the military body for civil duties; and by such transfer arose a practical division of the medical ranks into those in civil employ, and those holding regimental appointments; yet the lending theory has always been maintained, and the two classes of duties have continued in practice interchangeable, the civil being regarded as a military "reserve" in emergency. This arrangement was originally based on sound military considerations, which, however, have now lost much of their early force.

It has usually happened in the past that lucrative civil employment once obtained was retained. This was natural, but the result was that many medical officers ultimately lost military connection, and continued practically civilians until the end of their service.

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[1] *Medical and Sanitary Reform in India: An Appeal to all whom it may Concern.* Calcutta: Thacker, Spink, and Co. 1896.

From this lending system has arisen a certain amount of antagonism in interests between men in civil and in military employment—although all on the same army seniority list. A striking and unfortunate illustration of this was lately afforded in the reception accorded to the new simple military titles; while most of those in military employ, feeling the want of intelligible army status, welcomed them, some in civil employ, thinking the titles ill-assorted with their civil status, rather derided them. Such regrettable diversity in aims and interests must weaken homogeneity in a service which should be *inter se* absolutely united.

The reasons which originally gave the Indian Medical Service a purely military constitution as a body of European officers became much modified when natives were admitted to its commissioned ranks. This was a step the wide effects of which were apparently not foreseen when taken, but which is now regarded by many as having been a political error. To have conferred military commissions on natives on the same footing as Europeans, whether such natives were Indian graduates or held British diplomas, was, it is urged, not only needlessly expensive but impolitic from several points of view. Of the arguments used in support of this, only two need be mentioned: (1) The great majority of medically educated natives are very unwarlike, while many are without doubt morally and physically unfitted to hold military commissions; (2) Imperial policy demands, in the interests of discipline and efficiency in the native army, that medical officers of corps should be Europeans just as commanding officers must be.

This racial intermixture in the medical service has rendered the complete interchange between military and civil employment difficult if not impossible; has altered the original military constitution of the service, and now affords, it is maintained, a very strong argument for the separation and division of duties into civil and military.

In a purely civil branch, the politic and profitable employment of medical natives would be well and appropriately secured to the State; and a suitable and congenial field opened for their talents, without placing them in the false and needlessly expensive position of commissioned military officers.

The author of the pamphlet, in view of such arguments, proposes a complete separation of the civil from the military medical duties. He would create:

1. A Military Medical Service, to be called the Indian Medical Staff, or Corps, whose officers would be wholly military, and, we infer, entirely European.

2. A Civil Medical Service, to be designated the Indian Civil Medical Service, and completely disassociated from military work. It would consist of two divisions:

(*a*) *Covenanted;* recruiting by competitive examination in London, and therefore presumably European; from it would be obtained district surgeons, central gaol superintendents, and generally the occupants of the higher and more responsible sanitary and educational appointments.

(*b*) *Uncovenanted;* recruited by simultaneous competition in Bombay, Madras, Calcutta, and Allahabad, and of course natives or Eurasians. From this body he would fill civil surgeoncies, health officerships, and appointments generally of the second rank.

The pay and pension of the covenanted European servants would, of course, be necessarily higher than that of the native uncovenanted, while it is believed the great opportunities of clinical work and of professional distinction, together with liberal pay, would attract able Europeans for a purely civil service. But we would add that pay and pension for medical officers in purely military employ would also have to be made sufficiently attractive, or we fear that there would be difficulty in recruiting such a body at home. It is needless to add that any such rearrangement of the service would not touch the existing very valuable subordinate medical department.

The scheme sketched at all events deserves attention, but in view of the very sharp divergence of views, not merely in details but in fundamental principles which constantly reach us, we are constrained to admit that fuller information is desirable before any satisfactory scheme can be evolved.

The second proposition we laid down does not hinge upon the first, and should therefore at once receive consideration. A complete overhaul of the sanitary authority is needed; the existing Presidency Sanitary Commissions require remodelling. All that is included under the terms hygiene and demography demands immediate Government attention. The establishment of several bacteriological laboratories should be at once completed, and placed under competent superintendence whether procurable in or out of India.

CHANGES OF STATION.

THE following changes of station amongst the officers of the Royal Army Medical Corps have been officially reported to have taken place during the last month:

	From	To
Lieut.-Colonel A. T. Sloggett	—	Egypt.
,, J. T. Carey, M.D.	Egypt	Bengal.
,, R. D. Hodson	Sheerness	Chatham.
Major T. Dorman, M.D.	Queenstown	Punjab.
,, A. E. J. Croly	—	Madras.
,, G. F. A. Smythe	—	Egypt.
,, T. F. MacNeece	Egypt	Madras.
,, P. M. Carleton	Limerick	Kinsale.
,, H. J. Barnes	Golden Hill Frt	Colchester
,, W. J. Baker	Bermuda	Chatham.
,, G. H. Younge	Chatham	Sheerness.
,, C. E. Nichol, M.B.	Bengal	Dover.
,, R. Kirkpatrick, M.A.	—	Fort George.
,, T. B. Winter	—	Portland.
,, G. F. Gubbin	Chatham	Bengal.
,, H. P. Birch	Devonport	Horfield
,, G. D. Hunter, D.S.O.	Egypt	Bengal.
,, G. E. Anderson	—	Cork.
,, M. W. Russell	—	Dover.
,, A. Stables, M.B.	Aldershot	Bombay.
,, J. D. Moir, M.B.	Nova Scotia	Woking.
,, H. D. James	—	Shoeburyness.
,, W. E. Berryman	Portsmouth	Bengal.
,, S. E. Duncan	Crete	Belfast.
,, H. G. Hathaway	—	Woolwich.
,, H. M. Adamson, M.B.	Egypt	Cork.
,, J. J. Gerrard, M.B.	—	Ballincollig.
,, E. S. Marder	Portsmouth	Madras.
Captain W. C. Poole, M.B.	—	Dublin.
,, J. Thomson, M.B.	Egypt	Madras.
,, G. T. Rawnsley	Adj. Vol. Med. Staff Corps	Punjab.
,, L. Way	London	Adj. Vol. Med. Staff Corps.
,, H. J. M. Buist, M.B.	—	Woolwich.
,, F. J. Wade-Brown	Bombay	Portsmouth.
,, G. S. Crawford	Madras	Dublin.
,, J. D. Alexander, M.B.	—	Curragh.
,, H. A. Bray	Bombay	Egypt. Army
,, J. H. Rivers	,,	,, ,,
Lieutenant S. L. Cummins, M.B.	Punjab	,, ,,
,, J. M'Ardle, M.B.	Crete	,, ,,
,, H. G. F. Stallard	Punjab	,, ,,
,, H. G. Martin	Aldershot	Bombay.
,, F. F. Carroll, M.B.	,,	,,
,, J. D. G. Macpherson, M.B.	Portland	Bengal.
,, W. P. Gwynn	Chester	Madras.
,, A. C. Lupton, M.B.	Aldershot	Colds. Guards.
,, G. B. Carter, M.B.	Curragh	Punjab.
,, N. H. Ross, M.B.	Portsmouth	Bombay.
,, J. S. Gallie	Fort George	Edinburgh.

ROYAL NAVY MEDICAL SERVICE.

FLEET-SURGEON ALFRED H. MILLER has been placed on the retired list at his own request, February 3rd. He was appointed Surgeon, June 4th, 1878; Staff-Surgeon, June 4th, 1890; and Fleet-Surgeon, November 3rd, 1898. He wa Surgeon of the *Dee* during the Egyptian war in 1882, and has received the medal and Khedive's bronze star.

The following appointments have been made at the Admiralty: THOMAS AUSTEN, Surgeon, to the *Wildfire*, for Sheerness yard, February 23rd; JOHN D. HUGHES, Surgeon, to the *Tartar*, February 28th; RICHARD MILLER, M.B., Surgeon, to the *Mildura*, February 28th; JOHN E. COAD, Surgeon, to the *Barracouta*, February 28th.

The Naval Medical Department is to be largely increased in consequence of the additional requirements of an increased fleet. Fifty officers are to be added progressively to the list, including nine of the senior grades.

ROYAL ARMY MEDICAL CORPS.

CAPTAIN WILLIAM J. TROTTER, whose first commission dates from July 28th, 1886, is promoted to be Major, February 5th. He was with the Isazai expedition in 1892.

The undermentioned Captains. having completed twelve years' full-pay service, are also promoted to be Majors, dated February 5th:—FREDERICK J. MORGAN, WILLIAM H. HORROCKS, M.B., CHARLES H. HALE, D.S.O., HUGH C. THURSTON, BERTAL H. SCOTT, M.D., WALTER C. POOLE, M.B., OLIVER R. A. JULIAN, GEORGE RAYMOND, M.B., EUSTACE A. BURNSIDE, THOMAS M'CULLOCH, M.B., ALFRED B. HINDE, ALEXANDER Y. REILY, M.B., JOHN W. COCKERILL, JOHN RITCHIE, M.B, F.R.C.S.Edin., HARRY ST.G. S. HORE, STUART MACDONALD, M.B., ALEXANDER O. C. WATSON, M.B., F.R.C.S.Edin., EDWARD W. GRAY, M.B., F.R.C.S.I., DAVID STIELL, M.B., LAWRENCE E. A. SALMON, GEORGE A. WADE, M.B., F.R.C.S.I., JAMES MINNIECE, M.D., MAURICE P. C. HOLT. WILLIAM L. GRAY, M.B., EDWARD G. BROWNE, JAMES C. MORGAN, HERBERT I. POCOCK, GEORGE HILLIARD, C.M.G., M.B., CHARLES R. ELLIOTT, M.D.. CHARLES A. YOUNG, JOHN W. BULLEN, M.D., JAMES C. WEIR, M.B., BENJAMIN J. INNISS, ROBERT C. THACKER, STEPHEN F. CLARK, M.B., EDWARD M. HASSARD. The war services of these officers are as follow: Major Hale:—Operations in South Africa, 1896 (mentioned in despatches, D.S.O. and medal). Major Thurston: Burma, 1891, with Wuntho Field Force (medal with clasp). Major Scott: Chitral Relief Force, 1895 (medal with clasp). Major Reily: Dongola Expedition, 1896 (medal); Nile Expedition, 1898 (mentioned in despatches). Major Cockerill: Burmese Campaign, 1891 (medal with clasp); he has also the bronze medal of the Royal Humane Society for assisting to save three ladies from drowning at Pentire, near Newquay, Cornwall, in August, 1878. Majors Gray and Browne: Chitral Relief Force, 1895 (medal with clasp). Major Morgan: Zhob Valley Expedition, 1890; N.W. Frontier of India, 1897-8, with Tirah Expeditionary Force as Staff-Surgeon at Headquarters (mentioned in despatches, medal with two clasps). Major Hillard: Ashanti Expedition, 1895-6 (star). Major Young: Burma, 1892, with Irrawaddy Column (medal with clasp). Major Inniss: Burma, 1891, with Wuntho Field Force (medal with clasp): N.W. Frontier of India, 1897-8, with Tirah Expeditionary Force (medal with two clasps). Major Hassard: Isazai Expedition, 1892.

Lieutenant-Colonel M. R. RYAN, M.D., has been granted increased pay under Article 362 of the Royal Warrant.

Major WILLIAM KELLY, M.D., died at Leeds on December 29th, 1898. His commissions were dated: Surgeon, February 2nd, 1884; Surgeon-Major, February 2nd, 1806. He had no war record in the Army Lists.

The following is a list of successful candidates for commissions in the Royal Army Medical Corps at the recent examination in London:

	Marks.		Marks.
Delap, G. G.	2,393	Murison, C. C.	2.052
Warren, F.	2,388	Onraet, H. B.	2,047
Cunningham, R. A.	2,385	Falkner, P. H.	2,043
Crawford, V. J.	2,384	Hart, H. F.	2,025
Palmer, F. J.	2,275	Winslow, L. F. F.	2,016
Challis, O....	2,360	Norman, H. H.	1,971
Simson, H.	2,316	Chopping, A.	1,935
Stokes, T. G. N.	2,282	Prescott, J. J. W.	1,930
Butler, S. G.	2,151	Elsner, C. W. A.	1,925
Irvine, G. H.	2,140	Webb, A. L. A.	1,914
Woodside, W. A....	2,133	Ellery, E. E....	1,899
Blackwell, W. R.	2,109	Nicholls, H. M.	1,846

INDIAN MEDICAL SERVICE.

DEPUTY-SURGEON-GENERAL HENRY R. L. MACDOUGALL, M.D., late of the Bombay Establishment, died at Oban on February 9th in his 64th year. He was a son of the late Vice-Admiral Sir John MacDougall, K.C.B., and entered the service as Assistant Surgeon, May 28th, 1858; he became Brigade-Surgeon, May 1st, 1883, and retired with the honorary rank of Deputy-Surgeon-General, May 20th, 1886. He was engaged in the China war of 1860, and was present at the capture of the Taku Forts (medal with clasp).

The following candidates for Her Majesty's Indian Medical Service were successful at the Competitive Examination held in London on February 3rd and following days:

	Marks.		Marks.
C. Dykes	3,457	A. B. Fry	2,708
W. E. McKechnie	3,276	E. C. G. Maddock	2,685
E. D. W. Greig	3,275	A. W. Tuke	2.682
D. McCay...	3,119	F. C. Lewis	2,574
J. J. Urwin	3,069	M. W. Manuk	2,552
W. F. Harvey	3,037	W. H. Tucker	2,432
H. D. Peile	2,990	C. S. Lowson	2,390
W. C. H. Forster	2,949	J. H. S. Beaman	2,369
D. H. F. Cowin...	2.927	W. H. Dickinson	2,295

THE VOLUNTEERS.

THE undermentioned gentlemen have been appointed Surgeon-Lieutenants in the respective corps cited, dated February 4th: ROBERT HANTON, M.B., 4th Durham Artillery (Western Division Royal Artillery); WILLIAM M. TAYLOR, M.B., 1st Midlothian Artillery; JOHN E. B. WELLS, 1st (Hertfordshire) Volunteer Battalion the Bedfordshire Regiment; WILLIAM N. EVANS, 1st Volunteer Battalion the Duke of Cambridge's Own Middlesex Regiment; CHARLES A. MORRIS, M.B., 13th Middlesex (Queen's Westminster) Rifles; ARCHIBALD N. MCLELLAN, M.B., 2nd Volunteer Battalion the Highland Light Infantry; JAMES C. TAYLOR, M.B., 9th Lanarkshire Rifles.

The undermentioned Surgeon-Lieutenants are promoted to be Surgeon-Captains: A. D. DUCAT, 1st London Rifles, February 4th; A. R. STODDART, M.B., 1st Volunteer Battalion the Prince of Wales's Own West Yorkshire Regiment, February 8th; A. P. NUTTALL, M.B., 1st Volunteer Battalion the Lancashire Fusiliers, February 8th; Surgeon-Lieutenant C. R. HANDFIELD-JONES, 24th Middlesex Rifles, February 8th.

The Volunteer Officers' Decoration has been conferred upon the following: Surgeon-Captain J. P. ELLIOT, 1st Volunteer Battalion the Northumberland Fusiliers; Surgeon-Lieutenant-Colonel H. F. HURST, retired, 2nd Volunteer Battalion the Northumberland Fusiliers; Surgeon-Lieutenant-Colonel J. S. MUIR, M.B., 1st Roxburgh and Selkirk (the Border) Volunteer Rifle Corps; Surgeon-Major CHARLES KNOTT, 3rd (Duke of Connaught's Own) Volunteer Battalion the Hampshire Regiment; Surgeon-Lieutenant-Colonel EVAN JONES, 3rd Volunteer Battalion the Welsh Regiment.

A SPECIAL AMBULANCE FOR CAVALRY.

IN the remarks by the Commander-in-Chief on the medical arrangements during the recent autumn manœuvres, it is stated that "a special pattern of light ambulance is desirable to accompany mounted troops." This, of course, may be made to apply to cavalry, horse artillery, or mounted infantry. Early in 1892, Brigade-Surgeon Williams, the Principal Medical Officer of the New South Wales Military Forces, went fully into the details of a "mounted ambulance service" to meet the rapid movements of troops in the field, especially cavalry, and suggested the organisation of a certain number of "mounted bearer companies." Brigade-Surgeon Williams's suggestion was that each company should consist of five medical officers, eight non-commissioned officers, and twenty-eight rank and file; further, ten "specially-constructed" light ambulance waggons horsed with twenty horses, four light ambulance store waggons horsed with eight horses, two water carts (80 gallons each) with four horses, and twelve cacolets on six horses. He also proposed that the medical and surgical equipment should be of a special pattern and suitability. It is almost incredible that some such cavalry ambulance has never been organised for the British army, where the requirements must be infinitely greater than in a military force such as New South Wales is possessed of, which, according to the latest data attainable, consisted in 1897 of 1,065 artillerymen, 118 engineers, 4,239 infantry, 876 mounted rifles, 380 lancers, 68 army service corps, with a medical staff corps of 123. It will be remembered that New South Wales contributed a "Soudan contingent" some years ago, selected chiefly from its forces.

MEDICAL OFFICERS OF THE HOUSEHOLD TROOPS.

THE Army Order respecting the medical officers of the Household Troops has been issued. It recites that it is deemed expedient that, notwithstanding the change in the ranks of the officers of the late medical staff consequent on the formation of the Royal Army Medical Corps, the ranks and terms of appointment of the medical officers on the establishment of the Household Troops should remain as they were before such formation. And it is decreed that medical officers appointed to the regimental establishment of the Household Troops shall be transferred from the Royal Army Medical Corps to such regimental establishment; and that the rules for their ranks, pay, and retired pay shall continue the same as are laid down in the Warrant of April 26th, 1897.

MEDICO-LEGAL.

CONSTRUCTIVE MURDER.

CONVICTION OF A NURSE: REPRIEVE.

JANE WHITE, aged 67, a "nurse," was on February 9th, at the Central Criminal Court, found guilty of the murder of a woman by having performed on her an illegal operation, in consequence of which death resulted.

On December 3rd, 1898, information was given to Scotland Yard, in consequence of which the coroner was communicated with, the body (which had been buried on December 1st) was exhumed by his order, and a *post-mortem* examination made by Mr. Jackson Clarke, in the presence of Dr. Luff. A lacerated wound was found (the report before us does not say where), caused, in the opinion of both the medical men, by some hard or blunt instrument, probably a catheter, used for the purpose of procuring abortion. They are reported to have said that the wound would not have caused miscarriage had it been made with a clean instrument, but septic inflammation occurred, followed by suppurative peritonitis, causing death.

The evidence proved that on November 1st the deceased went with a friend to see the prisoner, with whom she had had previous transactions of a similar character. The alleged operation was performed then and there by the prisoner in the presence of the friend, who swore she saw an instrument in the hand of the nurse, but did not see her use it, and did not know anything wrong had been done. For the next twelve days deceased was apparently quite well, but on November 4th she felt ill and kept to her bed. Dr. Norton, of Upper Gloucester Place, was called in, but, judging from the patient's statements, accepted the view that it was a natural abortion, and ordered some medicine to stop the hæmorrhage. He was not called to the patient again.

On November 21st, the deceased having got much worse, Dr. Jones, of Church Street, Edgware Road, was called in. He found the patient very ill, suffering from peritonitis. He visited her several times during the next twenty-four hours, and on the evening of November 22nd death took place. Dr. Jones, having no suspicion that there had been anything but a natural miscarriage, gave a certificate of death from pelvic peritonitis and other complications, on which the body was buried.

At the trial, evidence was called to prove that the prisoner had made "examinations" of other women which were followed by miscarriages. Two women gave details of what passed between them and the prisoner on the occasions of their visits. There was abundance of evidence to prove the character of the business which the prisoner carried on systematically, and with so much profit that she offered another nurse £3 a week to help her.

Mr. Justice Bruce told the jury the crime imputed to her was of the gravest character. As the law stood, if a person in the commission of a felonious act dangerous to life caused the death of another, it was murder.

Prisoner was found guilty, with a very strong recommendation to mercy, and sentence of death was pronounced.

The prisoner was reprieved on February 13th.

A VACCINATION CASE.

THE QUEEN V. WEBB AND ANOTHER.

MR. H. S. SCHULTESS YOUNG writes: Your comments on this case are founded on so palpable a mistake that I am sure with your usual fairness you will be the first to repudiate them. The rule *nisi* was obtained on an affidavit sworn by the appellant, and only received in London on the last day on which the application could be heard. It was read by the Court, and I informed the Court I could not add to it, having no further knowledge. I certainly expected to find that it was because the Rev. Mr. Graham was not a solicitor that he was refused a hearing, but I did not express this surmise. Mr. Justice Channell expressly excepted Hawker's London advisers from his remarks which were directed to Mr. Graham who represented Hawker, and was pardonably ignorant of the requirements of the High Court. It was quite open to Mr. Justice Day, who granted the rule, to have refused it, the affidavit not being sufficient. If any proof were needed of the *bona fides* of counsel and solicitors, it would be the fact that we did not rest content with the rule *nisi*, but set the case down and took it before the Court, which we were not compelled to do, and having learnt the full facts had little chance of succeeding.

MR. B. ALABONE CHEVERTON, solicitor (Essex Street, Strand, W.C.) writes: By your comments in the BRITISH MEDICAL JOURNAL of February 4th, you imply that the High Court censured Mr. Schultess Young, counsel for the applicant, for not disclosing material facts on the application for the rule *nisi*. Nothing of the sort took place. The advisers referred to by the Court were not professional persons, and it is neither the duty of counsel nor solicitors to inquire into the accuracy of statements sent up to them on oath. As a matter of fact, the affidavits in support of the rule only reached us on the very last day when the rule could have been applied for, and consequently there was neither time nor opportunity to inquire further into them, even had it been one's duty to do so.

⁂ Both these letters purport to refer to "comments" upon the case, which we may observe was reported in the BRITISH MEDICAL JOURNAL of February 4th, 1899, pp. 320, 321. In reality, however, they apply not to our comments but to remarks attributed to Mr. Justice Channell. We regret that the report should have been in any respect incorrect, and willingly give publicity to our correspondents' explanation.

DEATH CERTIFICATES.

COUNTRY PRACTITIONER writes: On two occasions recently I was sent for to see persons who had just died, and who had not been under medical treatment. One was the case of an infant a few hours old; the other an aged woman receiving outdoor relief. Before giving a certificate I informed the coroner of the occurrence, and in each case received a reply that no inquest or certificate was necessary. Is it a medical man's duty in such cases to inform the coroner or registrar of deaths, and is he entitled to any fee for doing so?

⁂ There is no legal obligation on the part of the medical practitioner to give notice either to the coroner or the registrar in such cases, and for doing so there is no fee. In deaths that have not arisen from natural causes, or when crime is suspected, it is the usual practice for the medical man in attendance or called in at the death to withhold the certificate of the cause of death until the matter has been further investigated by the coroner or the police. We would refer our correspondent to the BRITISH MEDICAL JOURNAL of January 28th last, where under the heading "Coroners and Medical Witnesses," pages 229 and 251, he will find the subject further discussed.

INSURANCE REPORTS.

A CORRESPONDENT inquires: (1) Whether medical men are justified in furnishing an insurance company with particulars regarding a proposer's previous state of health without consulting the proposer? (2) Would a proposer have any legal right to complain or could he claim any compensation?

⁂ We believe that it is the ordinary practice for proposers to give the insurance company the name of their usual medical attendant, and a question asking the name of the medical attendant is frequently found on forms of proposals for life assurance. Where the proposer complies with this request he has impliedly authorised his medical man to give the particulars asked for. We are advised further that a *bonâ-fide* report is privileged.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

ELECTORAL BOARDS.—The following appointments of Electors to Professional Chairs are announced: *Chemistry*, Mr. P. T. Main, St. John's; *Physics*, Professor Liveing; *Botany*, Dr. S. H. Vines; *Downing of Medicine*, Dr. Allbutt; *Anatomy*, Professor Liveing; *Physiology and Zoology*, Dr. A. MacAlister; *Surgery*, Dr. L. Humphry; *Pathology*, Dr. Bradbury; *Mental Philosophy*, Professor Foster.

BALFOUR STUDENTSHIP.—Mr. J. S. Gardiner, of Caius College, has been elected Balfour Student in Animal Morphology.

UNIVERSITY OF DUBLIN.

AT the Spring Commencements, Hilary Term, held on Shrove Tuesday, February 14th, in the Theatre of Trinity College, the following degrees were conferred by the University Caput in the presence of the Senate:

Doctor in Medicinâ (Honoris Causâ).—T C. Allbutt.

Doctor in Litteris (Honoris Causâ).—T. W. Moffett

Baccalaurei in Medicinâ, in Chirurgiâ, et in Arte Obstetriciâ.—J. A. Kennedy, R. C. H. Kennedy, D. Ogilvy, G. C. C. Ross, A. H. Shepard, R. J. Wilkinson, J. H. R. R. Winder, S. H. Woods (B.Ch. *stip. cond.*).

Doctor in Scientiis.—A. F. Dixon (*stip. cond.*).

Doctores in Medicinâ.—G. Glynn, K. E. L. G. Gunn, D. Ogilvy, R. J. Wilkinson, J. H. R. Winder.

In presenting Dr. T. Clifford Allbutt, F.R.S., for the Honorary Degree of Doctor of Medicine at the Shrove Tuesday Commencements, Dr. R. Yelverton Tyrrell, the Public Orator of the University, said: Duco ad vos virum in arte medica et exercenda et illustranda plane principem, Thomam Clifford Allbutt. Hic summis disciplinæ suæ muneribus atque honoribus perfunctus, nunc cathedram inter *Sellas Potentum* primariam implet, Cantabrigiae Professor Regius Medicinae. Vixdum e pueris egressus, in Collegio Cantabrigiensi, quod medico illustri Caio illi originem debet, litteris humanioribus feliciter excultis se insignivit. Postea dedit se studiis ad artificium proprium magis pertinentibus, et in Scientia Naturali primum honorum gradum consecutus est. Sed cui amori adulescens operam dedit, eidem adultus constanter servit. Unde fit ut tam perpetua scribendi elegantia res medicas tangat ut auditores sive lectores semper secum jucundo studio rapiat. Dissertationes et conciones quarum ipsa nomina longum est perscribere tanta concinnitate perpolivit ut diceres Musarum sacra ferre ingenti percussum amore. Sive enim de hydrophobia disserit, sive de diphtheria, sive de bacillis illis letalibus, de denique aliis

quae plurima terrae
monstra ferunt,

omnibus adfert non solum ingeni lumen sed orationis ipsos nervos atque interdum etiam aculeos. Talem virum lubenter vobis commendo ut plane dignum qui purpura nostra decoretur, ut purpurae nostrae decus insigne adlaturum.

The following is a translation of the Public Orator's address:—I introduce to you Dr. Thomas Clifford Allbutt, a man pre-eminent both in the practice and illustration of the healing art, who has earned the highest awards and honours of his profession, and now occupies that primal Chair among the "Seats of the Mighty"—the Regius Professorship of Physic at Cambridge University. When little more than a boy he distinguished himself by the prosperous pursuit of polite letters in that College, which owes its origin to the renowned Dr. Caius. Subsequently he devoted himself to the study of these arts which pertain more closely to his proper calling, and secured a first class in the Natural Science Tripos. In manhood he consistently applied himself to the passionate predilection of his youth, and hence it is that he treats medicine with such unfailing literary art that he inspires both hearers and readers with his own enthusiasm. With such eloquence has he polished that series of treatises and lectures, whose very names were long to mention, that you might fancy him "smitten with passionate love, the Muses' relics bearing." Whether he writes of hydrophobia, of diphtheria, or of the deadly bacillus, or those other "countless monsters born of earth," he brings to every subject not only the clear light of intellect, but the very nerves, and sometimes the stings of style. This is the man whom I gladly recommend to you as fully worthy to be adorned with our purple, and to adorn it.

THE ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

AT a special meeting of the Royal College of Physicians of Ireland, held on Tuesday, February 14th, the Honorary Fellowship of the College was conferred on Dr. T. Clifford Allbutt, the Regius Professor of Physic in the University of Cambridge. In admitting the new Honorary Fellow, the President said that, in conferring upon Dr. Clifford Allbutt the highest dignity which it was in their power to bestow, the Fellows felt that they were doing honour to themselves, but above all to that ancient College of which they were so proud, and the prestige and good name of which they so jealously guarded. A distinguished student of Caius College, Cambridge, Clifford Allbutt graduated in Arts and Medicine in that famous University. As a physician he won his spurs in Leeds, and the esteem in which he was held by the inhabitants of the great Yorkshire town was evidenced by the fact that he was consulting physician to the Leeds General Infirmary, the Leeds Hospital for Women and Children, and the Leeds Fever Hospital. The fruits of his work were to be seen in his published writings on fever, heart diseases, and kindred topics. After leaving Yorkshire, Dr. Allbutt served Her Majesty faithfully and well as a Commissioner in Lunacy, from which important post he passed to the Regius Professorship of Physic in the University of Cambridge. It was hardly necessary to enumerate the many honours which had fallen to his lot. He was Doctor of Laws *honoris causâ*, of the University of Glasgow, and that very day he had been made an honorary Doctor of Medicine of the University of Dublin. He was a Fellow of the Royal College of Physicians of London, of the Royal Society, of the Society of Antiquaries, of the Linnean Society, and of Caius College, Cambridge. Nor had he failed to leave his mark in public life, for he held the Commission of the Peace for the West Riding of Yorkshire and for Cambridge, being also a Deputy-Lieutenant for the West Riding of Yorkshire. Of his literary and oratorical powers there was no need to speak. The Fellows gladly welcomed Clifford Allbutt into their ranks.

CONJOINT BOARD IN IRELAND.

FINAL EXAMINATION.—Candidates have passed this examination as undernoted:

In all Subjects.—J. McDonald and Bernard Scribner.

Completed the Examination.—W. Bennett, D. B. Bradlaw, J. Conway, Miss A. Cooper, B A. Craig, R. M. Fisher, H. E Howley, M. J. Hynes, A. W. A. Irwin, W. F. Kennedy, M. M. Maughan, E. M. J. O'Farrell, C. N. O'Sullivan, V. P. Tighe, C. J. Vahey, R. J. White, and A. A. Woods.

In Medicine.—G. Carroll and T. F. O'Connor.

In Surgery.—E. S. Barnard, E. E. Roberts, J. Sinclair, A. F. Studdert, and F. W. Woods.

In Midwifery.—E. S. Barnard, G. Carroll, H. H. A. Carter, G. W. T. Clarke, J. A. Martin, R. A. O'Donovan, and A. J. T. Young.

In Ophthalmology.—E. S. Barnard, H. H. A. Carter, and J. Sinclair.

In Mental Disease.—G. Carroll and R. H. Moffit.

In Forensic Medicine and Hygiene.—E. S. Barnard, J. J. Cormack, and J. F. Smyth.

DIPLOMA IN STATE MEDICINE AND PUBLIC HEALTH.—The following gentlemen have passed this examination:

Honours Division (in order of merit).—W. P. Carson, Lieutenant-Colonel I.M.S.; J. O. Littlewood, L.R.C.P.Lond., M.R.C.S.Eng., L.S.A.

Pass Division.—E G. Fenton, F.R.C.S.I., L.R.C.P.I.

UNIVERSITY OF JURJEW.—According to the official report recently published, the number of students in the University of Jurjew (perhaps better known by its old name of Dorpat) for the current year is 1,248, of whom 644 belong to the medical faculty. The teaching staff consists of 59 professors (37 ordinary and 22 extraordinary). During the last year academical degrees were conferred upon 450 candidates, 306 of whom were members of the medical profession.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

VITAL STATISTICS OF LONDON SANITARY DISTRICTS DURING THE FOURTH QUARTER OF 1898.

[Specially reported to the British Medical Journal.]

In the accompanying table will be found summarised the vital statistics of the forty-three sanitary areas of the metropolis, based upon the Registrar-General's returns for the fourth or autumn quarter of last year. The mortality figures in the table relate to the deaths of persons actually belonging to the various sanitary areas, and are the result of a complete system of distribution of deaths occurring in the public institutions of London among the various sanitary areas in which the patients had previously resided.

The 32,402 births registered in London during the three months ending December, 1898, were equal to an annual rate of 28.9 per 1,000 of the population, estimated at 4,504,766 persons in the middle of last year; this rate was, with one exception, lower than in the corresponding period of any of the ten preceding years, during which the birth-rate averaged 30.1 per 1,000. The birth-rate during the period under notice in the various sanitary areas showed, as usual, wide variations, owing principally to the differences in the sex and age distribution of the population. In Kensington, St. George Hanover Square, Westminster, St. James Westminster, Hampstead, St. Martin-in-the-Fields, and London City the birth-rates were considerably below the average; while they showed the largest excess in St. Luke, Shoreditch, Bethnal Green, St. George-in-the-East, Mile End Old Town, and Bermondsey.

The 18,804 deaths of persons belonging to London registered during the three months ending December, 1898, were equal to an annual rate of 16.7 per 1,000, against 17.7 and 19.0 in the corresponding periods of the two preceding years; with the exception of the fourth quarter of 1894, when the rate was only 16.2 per 1,000, the rate last quarter was lower than in the corresponding period of any year on record. During the ten preceding years the death-rate in London in the fourth quarter averaged 19.3 per 1,000. The lowest death-rates last quarter in the various sanitary areas were 11.2 in Hampstead, 11.9 in Stoke Newington, 12.0 in St. George Hanover Square, 13.2 in Wandsworth, 13.3 in Lewisham, and 13.6 in Kensington; the highest rates were 21.6 in Newington, 21.7 in St. Saviour Southwark, 21.8 in Bermondsey, 22.6 in Holborn, 24.5 in St. George Southwark, and 25.9 in St. Luke. During the quarter under notice 1,894 deaths resulted from the principal zymotic diseases in London; of these, 506 resulted from diphtheria, 470 from diarrhœa, 271 from enteric fever, 264 from measles, 240 from whooping-cough, 138 from scarlet fever, 3 from ill-defined forms of continued fever, 1 from typhus, and 1 from small-pox. These 1,894 deaths were equal to an annual rate of 1.68 per 1,000, against an average rate of 2.36 in the corresponding quarters of the ten preceding years, 1888-97. In the fourth quarter of the three preceding years the zymotic death-rate was 2.83, 1.59, and 2.70 per 1,000 respectively. In the various sanitary areas the lowest zymotic death-rates last quarter were 0.32 in St. Martin-in-the-Fields, 0.36 in Stoke Newington, 0.65 in St. George Hanover Square, 0.66 in Hampstead, 0.75 in St. Giles, and 0.76 in Plumstead; the highest rates were 2,76 in Bethnal Green, 2.81 in Newington, 2.85 in St. George Southwark, 3.22 in Limehouse, 3.51 in St. Luke, and 3.75 in St. Saviour Southwark.

One fatal case of small-pox was registered in London during the three months ending December last, being the first death referred to this disease in the metropolis since August, 1897; this fatal case belonged to St. George Hanover Square sanitary area. Measles showed the highest proportional fatality in Clerkenwell, St. Luke, Shoreditch, Bethnal Green, Whitechapel, Limehouse, Mile End Old Town, and St. Saviour Southwark; scarlet fever in Hammersmith, Fulham, Chelsea, St. Pancras, Clerkenwell, and St. Luke; diphtheria in City of London, Lime-

Analysis of the Vital and Mortal Statistics of the Sanitary Districts of the Metropolis, after Distribution of Deaths occurring in Public Institutions during the Fourth Quarter of 1898.

Sanitary Areas.	Estimated Population middle of 1898.	Births.	Deaths.	Annual Rate per 1,000 Living.			Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Typhus.	Enteric Fever.	Simple and Undefined Fever.	Diarrhœa.	Phthisis.	Deaths of Children under 1 year of age to 1,000 Births.
				Births.	Deaths.	Principal Zymotic Diseases.												
LONDON	4,504,766	32,402	18,804	28.9	16.7	1.63	1,894	1	264	138	506	240	1	271	3	470	1,973	137
West Districts.																		
Paddington	127,480	755	479	23.8	15.1	1.60	51	—	—	1	22	12	—	8	1	7	46	143
Kensington	172,174	851	584	19.8	13.6	0.80	34	—	2	3	3	5	—	9	—	12	47	133
Hammersmith	107,370	760	411	28.4	15.4	1.54	41	—	1	10	7	5	—	9	—	9	30	155
Fulham	125,275	1,006	464	32.2	14.9	1.78	56	—	1	12	14	0	—	12	—	11	44	[illegible]
Chelsea	96,713	520	369	21.6	15.3	1.20	29	—	3	5	4	3	—	5	—	9	37	[illegible]
St. George Hanover Sq.	80,608	347	242	17.3	12.0	0.65	13	1	—	—	4	1	—	3	—	4	29	75
Westminster	52,574	248	219	18.9	16.7	1.00	13	—	—	2	1	4	—	2	—	4	35	109
St. James Westminster	22,200	104	93	18.8	16.8	1.08	6	—	1	—	2	—	—	—	—	3	9	[illegible]
North Districts.																		
Marylebone	140,483	997	582	28.5	16.6	1.14	40	—	1	4	10	4	—	12	—	9	75	104
Hampstead	78,755	368	219	18.7	11.2	0.66	13	—	—	1	3	—	—	7	—	2	7	87
St. Pancras	243,416	1,670	1,112	27.5	18.3	2.36	143	—	17	17	43	12	—	22	—	32	126	138
Islington...	344,616	2,272	1,274	26.4	14.8	1.20	103	—	12	5	12	27	1	17	—	29	151	132
Stoke Newington ...	34,660	198	103	22.9	11.9	0.36	3	—	—	—	1	—	—	1	—	1	10	76
Hackney	219,630	1,654	799	30.2	14.6	1.50	82	—	15	6	21	7	—	19	—	14	77	123
Central Districts.																		
St. Giles	37,519	249	164	26.6	17.5	0.75	7	—	—	1	2	1	—	2	—	1	31	88
St. Martin-in-the-Fields	12,424	47	51	15.2	16.5	0.32	1	—	—	—	—	—	—	—	—	1	8	170
Strand	23,284	125	118	21.5	20.3	1.21	7	—	—	—	—	—	—	3	—	4	19	152
Holborn	30,056	186	169	24.8	22.6	1.86	14	—	1	—	3	3	—	1	—	6	26	210
Clerkenwell	66,120	503	344	30.5	20.9	2.72	45	—	18	4	3	1	—	2	—	17	48	183
St. Luke	41,076	468	265	45.7	25.9	3.51	36	—	12	9	7	—	—	1	—	7	25	115
London City	29,088	122	133	16.8	18.3	1.38	10	—	—	—	6	—	—	3	1	—	9	139
East Districts.																		
Shoreditch	121,485	1,074	591	35.5	19.5	2.24	68	—	28	5	11	2	—	8	—	14	70	155
Bethnal Green	129,027	1,202	688	37.4	21.4	2.76	89	—	37	4	21	1	—	9	—	17	62	159
Whitechapel	80,559	688	400	34.3	19.9	1.99	40	—	17	1	4	4	—	2	—	12	57	[illegible]
St. George-in-the-East	48,241	496	239	41.2	19.9	2.09	25	—	3	—	5	6	—	3	—	8	24	159
Limehouse	58,661	480	300	32.8	20.5	3.22	47	—	13	2	12	6	—	5	1	8	37	123
Mile End Old Town ...	112,528	1,087	568	38.7	20.2	2.75	77	—	28	2	23	1	—	7	—	16	48	132
Poplar	170,220	1,495	799	35.2	18.8	1.70	72	—	10	3	14	3	—	15	—	27	73	159
South Districts.																		
St. Saviour Southwark	24,562	182	133	29.7	21.7	3.75	23	—	10	—	5	4	—	3	—	1	13	143
St. George Southwark	60,461	529	370	35.1	24.5	2.85	43	—	6	2	11	7	—	5	—	12	54	174
Newington	123,183	1,009	663	32.9	21.6	2.81	86	—	11	3	26	21	—	2	—	23	77	171
St. Olave Southwark...	11,288	92	49	32.7	17.4	1.07	3	—	—	—	—	2	—	1	—	—	5	109
Bermondsey	85,738	756	466	35.4	21.8	2.47	53	—	4	2	25	8	—	2	—	12	47	179
Rotherhithe	40,849	307	178	30.1	17.5	0.99	10	—		1	2	4	—	1	—	2	19	137
Lambeth	304,073	2,223	1,200	29.3	15.8	1.64	124	—	2	11	45	19	—	15	—	32	112	182
Battersea	171,921	1,240	662	28.9	15.4	1.94	83	—	1	5	47	9	—	9	—	12	74	127
Wandsworth	202,526	1,274	664	25.2	13.2	1.40	70	—	3	3	20	18	—	8	—	18	68	115
Camberwell	261,189	1,830	994	28.1	15.3	1.35	88	—	4	5	26	15	—	10	—	28	95	143
Greenwich	180,441	1,419	795	31.6	17.7	1.46	66	—	1	6	14	9	—	15	—	21	80	138
Lee...	39,717	234	141	23.6	14.2	1.21	12	—	—	1	6	2	—	1	—	2	14	128
Lewisham	88,562	561	294	25.4	13.3	1.37	30	—	1	—	9	3	—	5	—	12	17	111
Woolwich	41,478	306	192	29.6	18.6	2.51	26	—	1	1	11	3	—	5	—	5	20	105
Plumstead	62,531	468	224	30.0	14.4	0.76	12	—	—	1	1	2	—	2	—	6	18	165

house, Mile End Old Town, St. Saviour Southwark, Newington, Bermondsey, Battersea, and Woolwich; whooping-cough in Holborn, St. George-in-the-East, Limehouse, St. Saviour Southwark, St. George Southwark, Newington, and St. Olave Southwark; enteric fever in Fulham, Hampstead, St. Pancras, Strand, City of London, St. Saviour Southwark, and Woolwich; and diarrhœa in Strand, Holborn, Clerkenwell, St. Luke, St. George Southwark, and Newington.

During the three months ending December last, 1,973 deaths from phthisis were registered in London, equal to an annual rate of 1.76 per 1,000, against 1.80 and 1.83 in the corresponding periods of the two preceding years. Among the various sanitary areas the lowest phthisis death-rates were recorded in Kensington, Hammersmith, Hampstead, Stoke Newington, Lewisham, and Plumstead; and the highest rates in St. Giles, Strand, Holborn, Clerkenwell, Whitechapel, and St. George Southwark.

Infant mortality, measured by the proportion of deaths under 1 year of age to registered births, was equal to 137 per 1,000 last quarter, against 150, 137, and 151 in the corresponding periods of the three preceding years. Among the various sanitary areas the rates of infant mortality were lowest in St. George Hanover Square, Marylebone, Hampstead, Stoke Newington, St. Giles, and Woolwich; while they showed the largest excess in St. James Westminster, Holborn, Clerkenwell, St. George Southwark, Newington, and Bermondsey.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,730 births and 4,797 deaths were registered during the week ending Saturday last, February 11th. The annual rate of mortality in these towns, which had been 17.0 and 19.5 per 1,000 in the two preceding weeks, further rose to 21.9 last week. The rates in the several towns ranged from 11.1 in Burnley, 14.0 in Brighton, 15.1 in Croydon, and 15.7 in Norwich, to 25.0 in Manchester, 25.2 in Oldham, 30.5 in Liverpool, and 32.4 in Preston. In the thirty-two provincial towns the mean death-rate was 21.3 per 1,000, and was 1.5 below the rate recorded in London, which was 22.8 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.1 per 1,000; in London the rate was equal to 1.8, while it averaged 1.9 per 1,000 in the thirty-two provincial towns, among which the highest zymotic death-rates were 3.4 in Cardiff, 3.5 in West Ham, 3.9 in Sunderland, and 4.4 in Preston. Measles caused a death-rate of 1.0 in West Ham, 1.6 in Manchester, and 1.9 in Bolton; scarlet fever of 1.1 in Sunderland; whooping-cough of 1.1 in Halifax, 1.3 in Preston, 1.5 in Bristol, 1.8 in Sunderland, and 2.5 in Cardiff; and "fever" of 2.7 in Preston. The 111 deaths from diphtheria in the thirty-three towns included 49 in London, 10 in Leeds, 8 in West Ham, 7 in Sheffield, 6 in Birmingham, 6 in Liverpool, and 4 in Leicester. No fatal case of small-pox was recorded last week either in London or in any of the thirty-two large provincial towns; and no small-pox patients were under treatment in any of the Metropolitan Asylums Hospitals. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had declined from 2,939 to 2,665 at the end of the six preceding weeks, had further fallen to 2,642 on Saturday last, February 11th; 253 new cases were admitted during the week, against 249, 220, and 265 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, February 11th, 879 births and 951 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had increased from 21.3 to 28.4 per 1,000 in the three preceding weeks, further rose to 31.2 last week, and was as much as 9.3 per 1,000 above the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 18.6 in Perth and 24.2 in Leith to 35.0 in Glasgow and 39.9 in Paisley. The zymotic death-rate in these towns averaged 3.3 per 1,000, the highest rates being recorded in Leith and Aberdeen. The 494 deaths registered in Glasgow included 6 from measles, 3 from scarlet fever, 3 from diphtheria, 15 from whooping-cough, 4 from "fever," and 7 from diarrhœa. Four fatal cases of measles, 4 of diphtheria, and 7 of whooping-cough were recorded in Edinburgh; 8 deaths from measles and 4 from whooping-cough occurred in Aberdeen.

BACK-TO-BACK HOUSES AT LEEDS.

THE Local Government Board have given their decision in the matter of the desire of the Leeds Town Council to erect houses on the back-to-back system on part of an "insanitary area" which has been cleared. The Board have decided against the proposed erection, the conclusion having been arrived at only after a deputation from the Council had visited London and fully discussed the questions involved in all their bearings with the authorities at Whitehall. The Board have had regard to several factors in the case, and would appear to have given due consideration to the strongly expressed wishes of the Town Council. The Board has not only maintained its own well-known aversion to such dwellings being newly built, but have taken note of the opinion of the Medical Officer of Health of Leeds—although the Council seem to think his opinion has been misconstrued—and the memorial against the class of house in question from the Leeds Trades and Labour Council. The Board has not seen in the evidence of the Leeds Improvement Bill Committee of 1893 on the subject any such approval of the principle of back-to-back houses as the Town Council would have it understood was given. Doubtless there are local considerations which seem to the Town Council to outweigh the general consensus of opinion against back-to-back dwellings; but, on the other hand, it seems a little difficult to get away from the idea that public health and finance are here, as in so many instances, at opposite ends of the argument. The problem of how to erect dwellings of a certain grade and standard at a certain remunerative rental, with due regard to health, comfort, and fresh air, has to be met. But it has elsewhere, and even in Leeds itself, been successfully worked out. The Plans Subcommittee has been asked to discover some "satisfactory method" of meeting the difficulty raised by the final decision from Whitehall. We do not doubt that such a method will be "discovered," the more so since the housing of a portion only of 2,000 persons on the back-to-back system is in dispute.

FEVER AND FILTH.

DR. THEODORE THOMSON, of the Medical Department of the Local Government Board, has made a report on the persistence of enteric fever in the Swinton and Pendlebury Urban District, a locality only four miles outside Manchester, and having a population of upwards of 25,000 persons, engaged chiefly in collieries, cotton spinning, and weaving. The report deals also with the administrative aspects of the district, and bears testimony to a variety of sanitary needs. The general method of excrement disposal is by huge privy-middens, the contents of these receptacles being in places deposited in the streets after carriage through houses, prior to further removal. Badly-paved yards, accumulated refuse in back premises, defective sink pipes and drains, and other insanitary conditions in and about dwellings, all add their quota to the filthy state of the district. The soil is, and has long been, liable to serious pollution, and is such as to form a suitable nidus for the typhoid germ. Then, again, jerry building seems to flourish, and appears likely to prove a source of trouble in future, and the very excellent sanitary inspector is apparently overburdened. The sewage outfalls, too, need immediate attention, the present methods of disposal being unsatisfactory. Dr. Thomson gives, in regard to fever prevalence, some useful comparative data for the district, England and Wales, and fifty large towns. As to attack rate, during 1890-97 the rate of 2.13 per 1,000 annually in Swinton and Pendlebury compares very badly with 1.03 of the fifty towns, and is exceeded by only six of them in the five years 1893-97. As to mortality, enteric and continued fever yielded a death-rate in 1888-97 more than double that for "fever" in the thirty-three great towns of the Registrar-General, and two and a-half times that of England and Wales.

THE OVERCROWDING OF WORKHOUSE INFIRMARIES.

FROM the reports of a recent meeting of the Lambeth Guardians it appears that the infirmary is much overcrowded. It was reported "that patients were sleeping on the floor." We fully sympathise with guardians who are confronted with the difficult problem of adapting the buildings of the past to the increased population of the present; but this problem is not the growth of yesterday. These official bodies have been too ready to go on from hand to mouth, hoping that relief might come somehow. If the population of the locality has been steadily increasing, a growing proportion must be expected to seek aid from the Board, especially as the hospitals are not increasing to any appreciable extent. The scientific to say nothing of the rational treatment of disease under these circumstances, is out of the question, and bearing in mind the result of the late investigations on the spread of tuberculosis, the condition of these overcrowded infirmaries is of grave importance to the community. Are they not in reality propagating phthisis among the lower classes in our large cities?

BACTERIOLOGICAL DIAGNOSIS.

M.—The absence of diphtheria bacilli from the swab is of course no proof of the absence of diphtheria, and our correspondent would seem to be entitled to his fee. The fee, of course, is only payable on account of a notification of the name, etc., of a person suffering from one of the notifiable diseases. To sue for the fee our correspondent would require to prove that his diagnosis was correct. Why was a second bacteriological examination not made?

NOTIFICATION FEES.

DR. THOMAS GRAHAM (Paisley) writes: I observe in the BRITISH MEDICAL JOURNAL of February 11th an instance noted of the refusal of a local authority to pay fees for notification of cases of infectious disease on the ground that they by time are proscribed as legal debts. Should all local authorities and their clerks take as a model the procedure of the local authority of this town, they would perform a statutory duty in a satisfactory manner. Every medical practitioner is supplied with a book of forms and counterfoils, so that, if the practitioner be ordinarily careful, he has a check on the local authority. The sanitary inspector sends to each practitioner from whom certificates have been obtained a statement containing the number of cases he has certified, and also the amount which is owing him, at the end of each quarter. He is at the same time informed when the account will be paid, and on the morning of the day named he receives a cheque. This mode of carrying out the Act for the Notification of Infectious Diseases, and the remuneration of the practitioner therefor, may be interesting and instructive.

Not being a legal practitioner, I do not give an opinion on the validity of W. M.'s claim.

VITAL STATISTICS FOR 1898.

T. P.—The usual table and article relating to the 33 large English towns will very soon be ready for the BRITISH MEDICAL JOURNAL. In the meantime the following figures may be useful to our correspondent:

	Birth-rate.	Death-rate.	Zymotic Rate.	Infant Mortality.
England and Wales... ...	29.4	17.6	2.22	161
33 towns...	30.3	19.0	2.85	178

EPILEPTICS IN MASSACHUSETTS.—The Massachusetts Hospital for Epileptics at Monson, which was opened in May, 1898, is already crowded, and an appeal is to be made to the Legislature for funds to enlarge it. It was intended to accommodate 200 patients, but there are said to be 4,000 epileptics in the State, many of them urgently needing care in a special institution.

MEDICAL NEWS.

WE are informed that a Bradford and West Riding Medical Union has been constituted with Dr. T. W. Hime as President, and Drs. John Dunlop and William Mitchell as Secretaries. The object of this new Society is stated to be to consolidate medical opinion in the West Riding, and to take steps towards securing reform of the medical charities.

THE LIVERPOOL SCHOOL OF TROPICAL MEDICINE.—The office of Demonstrator of Tropical Pathology in the newly-formed School of Tropical Medicine in Liverpool has been filled by the appointment to it of Mr. H. E. Annett, M.B., B.Ch.Vict., D.P.H. Mr. Annett was a student of the Liverpool School, and gained, among other distinctions, the Lyon-Jones Scholarship and the Holt Fellowship in Pathology. He has been an 1851 exhibition scholar, and has spent the last two years in study in Professor Koch's laboratory in Berlin. The post of Lecturer on Tropical Diseases has not yet been filled.

EDINBURGH PUBLIC HEALTH COMMITTEE.—The Public Health Committee of the Edinburgh Town Council on January 31st received a deputation of ladies on the subject of the appointment of women as sanitary inspectors. At the same meeting it was reported that the cost for the last half year of reporting cases of infectious disease amounted to £542, which represented 4,339 cases. In the previous half year the cost was £353, representing 2,826 cases; in all £895 paid to medical practitioners in the city for reporting cases of infectious disease during the year 1898. In the year 1897 the total amount paid was £1,345 7s. 6d.

LINGFIELD TRAINING COLLEGE.—A body of Christian Workers, representing all Protestant denominations, and presided over by Lord Meath and the Bishop of Hereford, has acquired a farm of 260 acres in Lingfield, Surrey, where it proposes to provide agricultural work for the unemployed, to establish a one-storeyed home for crippled children, and a home for epileptic children. In these two latter departments of work especially the medical profession will take a keen interest, the need of such refuges being constantly brought under their notice. It is also proposed to establish a home for inebriates of the middle class. The Rev. J. L. Brooks is the Resident Director of the colony.

INDUSTRIAL FARM COLONY, DUXHURST, REIGATE.—This establishment, founded by Lady Henry Somerset for the treatment of female inebriates, consists of a series of real cottage homes, each containing not more than six inmates under the charge of a sister. These are situated upon a breezy Surrey down, and open-air employment, under the direction of a lady gardener, is provided for all capable of it. There is also a weaving shop and of course a laundry. From the report of the medical officer (Dr. Walters), we learn that of 83 cases who stayed the full term of one year (less than this is considered useless), 55 (or 67 per cent.) were doing well. There is also on the estate a holiday home for children ("Birds' Nest"), where also the babies of inebriate women are looked after—a feature in the colony which appeals to womanly feeling and exercises a brightening effect upon the life of the inmates.

A TEST FOR THE DIFFERENTIATION OF BACILLUS COLI COMMUNIS AND BACILLUS TYPHOSUS.—In an interesting paper communicated to the Sydney and New South Wales Branch of the British Medical Association by Dr. Sydney Jamieson on his experience of the Widal reaction in typhoid fever, in the Pathological Department of the Sydney Hospital, he refers to what is a test for the differentiation of bacillus coli communis and bacillus typhosus. He observed that in most cases of cystitis accompanied by fœtid urine, the prevailing organism was the bacillus coli communis, and concluded that probably the growth of this organism was the cause of the ammoniacal decomposition of the urine. He then inoculated several tubes containing sterilised healthy urine with cultures of the bacillus coli communis, and a similar number with the bacillus typhosus, and incubated them at 37° C. In the course of a few days it was found that the urine in the tubes which had been inoculated with the former had undergone ammoniacal decomposition, while the urine in the tubes inoculated with the latter remained unchanged even for several weeks. If these results are confirmed this will be a very simple additional negative test for the identification of the bacillus typhosus.

MARGATE COTTAGE HOSPITAL.—The Diamond Jubilee of Her Majesty has been commemorated at Margate by the enlargement of the Cottage Hospital. The suggestion for this method of celebrating the jubilee emanated from Mr. Bertram Thornton, one of the surgeons to the hospital, and it was adopted at a public meeting of the burgesses held on March 17th, 1897, and has been most successfully carried to completion. The original "cottage" which formed the nucleus of the institution has been entirely pulled down, but two added wards and the operating theatre were left standing. On the vacant site and part of the front garden a large building has been erected with all the requirements of a modern hospital. It contains a reception room for examination of patients and treatment of minor injuries, an addition of 5 beds to the men's ward, rooms to accommodate the matron and nurses, a new ward for two women, and cots for two children, and spacious rooms for the servants. All these are far more suitable to their purposes than the corresponding rooms in the old building. The hospital also will now accommodate 6 more patients. Altogether the Building Committee, and especially Mr. H. Keble, the Secretary to that Committee, are to be heartily congratulated on the success of their labours. The inception of the original cottage hospital was due to Mr. W. K. Treves, F.R.C.S., many years ago, and the Committee have decided to call one ward "Treves Ward" in honour of that gentleman. The growing needs of the district called for this extension, the population of Margate in the winter season being over 18,000, and in the season amounting to 100,000.

DIPHTHERIA AT DARENTH ASYLUM.—At a recent meeting of the Metropolitan Asylums Board an interim report was presented from Dr. A. Shadwell—formerly cholera superintendent under the Board—with reference to the recent outbreak of diphtheria at Darenth Schools. It will be remembered that, at the first meeting after the Christmas recess, attention had been called to the fact that 9 cases of diphtheria had occurred at the asylum, and it was alleged by one of the members of the Board that the sanitation of the institution was obsolete and defective—in fact, that the sanitary arrangements were "thirty years behind the times." It would appear from the report of Dr. Shadwell that 13 cases in all had arisen, and that the infection existed principally amongst the boys. The conditions discussed did not in any way account for the outbreak, and, so far as evidence at present went, Dr. Shadwell was of opinion that the infection was probably introduced from outside, diphtheria having been prevalent in the neighbourhood of the asylum. The matter being still under investigation we forbear further remark, but the public will expect, after previous allegations, a thorough examination of the conditions accountable for the outbreak.

THE SANITARY CONDITION OF ITALY.—The Italian Minister of the Interior has decided to institute an inquiry throughout the kingdom with the object of ascertaining the hygienic condition of every commune at the end of last year. A schedule of questions has been drawn up, and the answers given to these questions, together with the information already in possession of the Government, will, it is hoped, enable the authorities to get at the exact state of sanitary matters in Italy.

MEDICAL VACANCIES.

The following vacancies are announced:—

BIRMINGHAM: GENERAL HOSPITAL.—House-Physician. Salary, £70 per annum. Also House-Surgeon. No salary. Residence, board, and washing provided in each case. Applications to the House Governor by February 25th.

BRIGHTON THROAT AND EAR HOSPITAL, Church Street, Queen's Road, Brighton.—Non-resident House-Surgeon. Appointment for six months, but renewable. Salary at the rate of £75 per annum. Applications to the Secretary, 10, Black Lion Street, Brighton, by February 28th.

BRISTOL ROYAL INFIRMARY.—Resident Obstetric Officer. Salary £40 per annum, with board, lodging, and washing. Applications to the Secretary by February 21st.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—Clinical Assistant. Applications to the Secretary.

DEVIZES URBAN DISTRICT COUNCIL.—Medical Officer of Health; must reside within the Borough. Salary, £50 per annum. Applications, marked "Medical Officer of Health," to the Town Clerk, by March 4th.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Assistant House-Surgeon. Board, lodging, and washing provided, no salary. Applications to the "Secretary of Medical Committee" by first post on February 23rd.

EAST LONDON HOSPITAL FOR CHILDREN, GLAMIS ROAD, SHADWELL, E.—House-Surgeon. Board and residence provided, and honorarium of £25 on completion of six months' approved service. Applications to the Secretary by March 18th.

ESSEX COUNTY ASYLUM, Brentwood.—Junior Assistant Medical Officer, unmarried, and not over 26 years of age. Salary, £120 per annum, with board, residence, and washing. Applications to the Medical Superintendent by February 28th.

FARRINGDON GENERAL DISPENSARY.—Resident Medical Officer. Salary, £100 per annum, with apartments and attendance. Applications to the Secretary, 17, Bartlett's Buildings, Holborn Circus, E.C., by February 28th.

GLASGOW UNIVERSITY.—Professor of Pathology. Salary, £1,100. Applications to Alan E. Clapperton, Secretary of the Glasgow University Court, 91, West Regent Street, Glasgow, by March 24th.

GUILDFORD: ROYAL SURREY COUNTY HOSPITAL.—Resident House-Surgeon. Salary, £80 per annum, with board, residence, and laundry. Also Assistant House-Surgeon. Salary, £30 per annum, with board, residence, and laundry. Applications to the Honorary Secretary by February 24th.

HALIFAX UNION WORKHOUSE, St. Luke's Hospital.—Assistant Medical Officer for the Hospital and Workhouse, unmarried, and not over 35 years of age. Salary, £100 per annum. Applications on forms provided, to be endorsed "Assistant Medical Officer," and sent to the Clerk to the Guardians by March 1st.

HEREFORD GENERAL DISPENSARY.—Assistant House-Surgeon and Dispenser. Salary, £75 per annum, with board, residence, and washing. Office tenable for two years. Applications to the Secretary, 87, Bridge Street, Hereford, by February 21st.

HERTFORDSHIRE COUNTY ASYLUM, Hill End, St Albans.—Assistant Medical Officer. Salary, £130 per annum, increasing to £150, with furnished quarters, board, washing and attendance. Applications to the Medical Superintendent by February 24th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Surgeon to Out-patient Department. Appointment for six months, but eligible for re-election. Salary, 25 guineas. Applications, on forms provided, to the Secretary by February 21st.

HUDDERSFIELD INFIRMARY.—Assistant House-Surgeon. Appointment for six months, but may be extended. Salary at the rate of £80 per annum, with board, lodging, and washing. Applications to the Secretary.

LEEDS UNION.—Assistant Medical Officer for the Workhouse, Schools, and Infirmary, Beckett Street; unmarried, and not above 35 years of age. Salary, £110 per annum, with board, washing, apartments, and attendance. Applications, on forms provided, to be endorsed "Assistant Medical Officer," and sent to the Clerk, Poor-law Offices, East Parade, Leeds, by February 21st.

LIVERPOOL SCHOOL OF TROPICAL DISEASES (University College, Liverpool, and the Liverpool Royal Southern Hospital).—Lecturer in Tropical Diseases at University College. Will also be appointed Honorary Consulting Physician to the Royal Southern Hospital. Salary, £250 a year and proportion of students' fees. Applications to Professor Boyce, University College, Liverpool, by February 27th.

LONDON THROAT HOSPITAL, 204, Great Portland Street, W.—Assistant Surgeon. Applications to the Medical Committee before February 20th.

MANCHESTER CHILDREN'S HOSPITAL.—Junior Resident Medical Officer. Appointment for six months, but eligible for election as Senior for six months. Unmarried. Salary, £80 per annum as Junior, and £100 as Senior, with board and lodging. Application to the Secretary, Dispensary, Gartside Street, Manchester, by March 1st.

MANCHESTER EAR HOSPITAL, 23, Byrom Street.—Clinical Clerkship. Appointment for six months. Honorarium, 10 guineas. Applications to the Secretary by March 1st.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—House-Surgeon unmarried and not more than 30 years of age. Salary, £80 per annum, with board, lodging, and washing. Applications to the Secretary by February 28th.

PLYMOUTH: SOUTH DEVON AND EAST CORNWALL HOSPITAL.—House-Surgeon. Salary, £100 per annum, with board and residence. Applications to the Honorary Secretary by March 4th.

PRESTON ROYAL INFIRMARY.—A Junior and an Assistant House-Surgeon. Salaries, £30 and £50 per annum respectively, with board, lodging, and washing. Applications to the Secretary, 5, Winckley Street, Preston, by March 4th.

RICKMANSWORTH: DALRYMPLE HOME FOR INEBRIATES.—Resident Medical Superintendent. Salary, £200 per annum, with unfurnished house, food, coals, gas, etc. Applications to the Chairman, House Committee, by February 24th.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN, Waterloo Bridge Road, S.E.—Resident Medical Officer. Salary, £70 per annum, with board, lodging, and washing. Applications to the Secretary by March 1st.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Junior Out-patient Surgical Officer. Salary, £50. Applications to the Secretary by February 28th.

RYDE: COUNTY HOSPITAL.—House-Surgeon. Salary, £50 per annum, with board, lodging, etc. Applications to the House-Surgeon by March 1st.

ST. ANDREWS UNIVERSITY.—External Examiner for Graduation in Public Health. Applications to Mr. C. S. Grace, Factor to the University Court, by February 21st.

SHEFFIELD: UNIVERSITY COLLEGE.—Demonstrator in the Bacteriological Laboratory. Salary, £150 per annum. Applications to the Council of the College by February 23rd.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN, Marylebone Road, N.W.—Anaesthetist. Honorarium, £20 per annum. Applications to the Secretary by March 10th.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—Assistant House-Surgeon. Salary, £30 per annum, with board, lodging, and washing. Applications to the House-Surgeon by February 23rd.

TAUNTON: TAUNTON AND SOMERSET HOSPITAL.—Assistant House-Surgeon. Appointment for six months. No salary, but board, washing, and lodging provided. Applications, endorsed "Assistant House-Surgeon," to the Hon. Secretary, by March 3rd.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea, S.W. House-Physician. Appointment for six months. Honorarium at the rate of £50 per annum, with board and lodging. Applications to the Secretary by February 25th.

WESTON-SUPER-MARE HOSPITAL.—House-Surgeon, unmarried. Salary, £60 per annum with board and residence. Applications to the Honorary Secretary by February 28th.

WINDSOR ROYAL INFIRMARY.—House-Surgeon. Salary commencing £100 per annum, with residence, board, and attendance. Applications to the Secretary, 13, High Street, Windsor, by February 22nd.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Assistant House-Surgeon. Appointment for six months. Honorarium at the rate of £50 per annum, with board and lodging. Applications to the Secretary by February 21st.

MEDICAL APPOINTMENTS.

ADDINSELL, A. W., M.B., C.M., appointed Pathologist to the Chelsea Hospital for Women.

AYRES, G. H., L.R.C.P., L.R.C.S.I., appointed Medical Officer and Public Vaccinator for the Tarporley District of the Tarvin Union, *vice* Allen McCulloch, M.B., C.M.Glasg., resigned.

BUTLER, W. B., M.R.C.S., L.R.C.P., appointed Medical Officer for the Second District of the Flaxton Out-Relief Union.

DAVY, W. B., L.M., L.Ch., L.A.O Univ.Dub., appointed Medical Officer to Fannett Dispensary, Milford Union, co. Donegal.

DENT, E. A., M.B., C.M.Edin., appointed Medical Officer for the Third District of the Cheltenham Union.

DUNCAN, A., M.B., D.P.H., appointed Clinical Assistant to the Chelsea Hospital for Women.

GLASSON, C. J., M.D.Brux., L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the Third District of the Romford Union.

HIBBERD, E., M.D.St.And., M.R.C.S.Eng., appointed Medical Officer of the Casual Wards of the Paddington Workhouse.

HOPKINS, H. C., M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer for the Second District of the Bath Union.

MURRAY, John, M.B., F.R.C.S., appointed Surgeon to Out-patients at the Paddington Green Children's Hospital.

NARIMAN, B. K., M.B., B.Sc. (Public Health), C.M.Edin., etc., appointed Assistant Surgeon to the South Dispensary, Liverpool.

NORGATE, R. H., M.R.C.S., L.R.C.P., appointed Medical Officer for the Stapleton Workhouse of the Bristol Union.

OGILVY, Alec, M.D., F.R.C.S.I., appointed Surgeon to the Bristol Eye Dispensary.

PEIRCE, J. E., M.R.C.S.Eng., appointed Medical Officer for the Beoley District of the King's Norton Union.

ROWLAND, H. A., M.B., C.M.Edin., appointed Medical Officer for the Seventh District of the Ashton-under-Lyne Union.

THOMSON, James, M.D.Glasg., appointed Medical Officer and Public Vaccinator for the Carshalton District of the Epsom Union, *vice* F. S. Moger, M.R.C.S.Eng., resigned.

DIARY FOR NEXT WEEK.

MONDAY.

Royal College of Surgeons, 5 P.M.—Dr. T. G. Brodie: On the Chemical Pathology of some Infective Diseases. (Erasmus Wilson Lecture I).

Medical Society of London, 8.30 P.M.—Dr. Samuel West: Some of the Clinical Aspects of Granular Kidney. (Lettsomian Lecture II.)

TUESDAY.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C., 3.30 P.M.—Mr. Horsley: On the Surgery of the Nervous System. (Lantern Demonstration).

Chelsea Clinical Society, Holy Trinity Parish Hall, Pavilion Road, Sloane Square.—Card Specimens at 8 P.M. Papers at 8.30 P.M. Dr. G. Herschell: Atony and Dilatation of the Stomach. Dr. Penny: Radical Cure of Hydrocele.

West End Hospital for Diseases of the Nervous System, 73, Welbeck Street, W., 4 P.M.—Dr. T. D. Savill: On the Slighter Forms of Mental Disorder, and how to Deal with Them.

Pathological Society of London, 8.30 P.M.—Professor G. Sims Woodhead will open a discussion on Pseudo-tuberculosis, and will be followed by Professor S. Martin, Professor John Macfadyean, Dr Washbourn, Dr. Wethered, Mr. Fullerton, Mr. Pakes Specimens, microscopic and lantern slides, will be shown.

WEDNESDAY.

Royal College of Surgeons, 5 P.M.—Dr. T. G. Brodie: On the Chemical Pathology of some Infective Diseases. (Erasmus Wilson Lecture II.)

Hospital for Consumption and Diseases of the Chest, Brompton, 4 P.M.—Dr. Wethered: On the Difficulties of Diagnosis in Pulmonary Tuberculosis.

Hunterian Society, 8.30 P.M.—Mr. Charters J. Symonds, M.S., F.R.C.S.: The Value of Individual Symptoms in Perforative Peritonitis, more especially in regard to Operation.

Dermatological Society of Great Britain and Ireland, 20, Hanover Square, W., 5 P.M.—Informal exhibition of cases at 4.30 P.M.

Evelina Hospital, S.E., 4.30 P.M.—Dr. George Carpenter: Clinical Demonstration on Medical Cases (Post-graduate Course).

THURSDAY.

Royal College of Physicians of London, 5 P.M.—Dr. G. Vivian Poore: On the Earth in relation to the Preservation and Destruction of Contagia. (Milroy Lecture I.)

Charing Cross Hospital, Post-Graduate Course, 4 P.M.—Dr. Galloway: Dermatological Demonstration.

London Temperance Hospital, 2 P.M.—Dr. Soltau Fenwick: Clinical and Pathological Demonstration to Senior Students.

Hospital for Sick Children, Great Ormond Street, W.C., 4 P.M.—Dr. Barlow: Demonstration of Selected Cases.

FRIDAY.

Royal College of Surgeons, 5 P.M.—Dr. T. G. Brodie: On the Chemical Pathology of some Infective Diseases. (Erasmus Wilson Lecture III.)

West Kent Medico-Chirurgical Society, Royal Kent Dispensary, Greenwich Road, 8.45 P.M.—Special general meeting to receive and discuss the report of the Subcommittee appointed to revise the rules of the Society.

Clinical Society of London, 8.30 P.M. Clinical Evening. Patients in attendance at 8 P.M. The following cases will be shown:—Dr. Rolleston: Multiple Periarticular Bursae. Dr. F Parkes Weber: Recommencement of Muscular Atrophy long after Infantile Paralysis. Dr. Cahill: Unilateral Hypertrophy of the Female Breast resulting from Pressure. Dr. Caley: A Case of Tabes Dorsalis with Arthropathy and Pulmonary Fibrosis. Mr G. Bertram Hunt: Rheumatoid Arthritis, with Enlarged Spleen and Glands in an Infant. Dr. Washbourn and Mr W. Arbuthnot Lane: A Patient from whom a Cerebral Tumour was removed Seventeen Months ago. Dr. Mouat-Biggs: Extreme Case of Factitious Urticaria. Dr Raymond Crawfurd: Myositis Ossificans Progressiva. Dr. Leonard Guthrie: A Case of Congenital Paralysis. Dr. StClair Thomson: Man, aged 38, complaining of Dysphagia; found to be affected with Unilateral Paralysis of the Eighth and Bulbar Nerves. Dr Leonard Guthrie: Acute Atrophic Paralysis affecting both Upper Extremities Mr. E. W. Roughton: Tumour of Maxilla of Doubtful Nature.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to insure insertion in the current issue.

BIRTHS.

BIGGS.—On Thursday, February 9th, at 147, Newport Road, Cardiff, the wife of J. J. E. Biggs, M.R.C.S., L.R.C.P., of a son.

MACMILLAN.—On February 8th, at Monsall Lodge, Prestwich, Lancashire, the wife of David Macmillan, M.D., of a daughter.

OSBORN.—On February 7th, at the Chalet, Dover, the wife of Arthur Osborn, M.R.C.S. and L.R.C.P., of a daughter.

SAYRES.—On February 12th, at Woodford, Essex, the wife of A. W. F. Sayres, M.D.Brux., M.R.C.S.Eng., L.R.C.P.Lond., of a son.

MARRIAGES.

COCKING—BIRKS.—On February 9th, at the Parish Church, Sheffield, by Rev. James Henry, F.R.G.S., Vicar of St. Bartholomew's, Birmingham, brother-in-law of the bride, assisted by Rev. W. Bracewell, M.A., Curate of the Parish Church, Wm. Tusting Cocking, M.D.Lond., to Alice Mary, youngest daughter of Edward Birks, Birchcliffe, Broomhall Park, Sheffield.

DARLING—SMAILL.—On February 8th, at St. John's Free Church, Edinburgh, by the Rev. George Philip, D.D., Thomas Brown Darling, M.D., The Hawthorns, Merchiston Place, Edinburgh, to Elizabeth Dunlop, second surviving daughter of the late George Barclay, merchant, and widow of W. R. Smaill, Edinburgh.

SHAW—SCHMOCKER.—On January 25th, at the St. Marylebone Registrar's Office, privately, John Shaw, M.D.Lond., M.R.C.P.Lond., of 83, New Cavendish Street, Cavendish Square, W., to Rosa Schmocker, of Ringgenberg, near Interlaken, Switzerland.

DEATHS.

DICKINSON.—On January 27th, at Westby House, Boscombe, Bournemouth, J. B. Dickinson, M.D., M.R.C.S., late of Stalybridge, in his 71st year.

WILLIAMS.—On February 7th, after a long and painful illness, at Broomfield, Swinton near Manchester, John Williams, M.D., M.R.C.S., L.S.A., aged 64 years.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

Cancer, Brompton (Free). *Attendances.*—Daily, 2. *Operations.*—Tu. W. F., 2.

Central London Ophthalmic. *Attendances.*—Daily, 1. *Operations.*—Daily.

Central London Throat, Nose, and Ear. *Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—I.p., Tu., 2.30; o.p., F., 2.

Charing Cross. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.45; Dental, M., 9: Throat and Ear, F., 9.30. *Operations.*—Th. F. S., 3.

Chelsea Hospital for Women. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

City Orthopædic. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.

East London Hospital for Children. *Operations.*—M. W. Th. F., 2.

Great Northern Central. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F., 2.30; Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

Guy's. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30: Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 2.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 2. *Operations.*—Tu. F., 1.30; (Ophthalmic), M., 1.30; Th., 2.

Hospital for Women, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

King's College. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, daily, 2; o.p., daily, 1.30; Eye, M. W. Th., 1.30: Ear, Th., 2.30; Throat, M., 1.30; F., 2; Dental, M. Th., 10; Skin, W., 1.30. *Operations.*—W. Th. F., 2.

London. *Attendances.*—Medical, daily, i.p., 2; o.p., 1.30; Surgical, daily, 1.30 and 2; Obstetric, M. Tu. Th. F., 2; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, W., 9; Skin, Th., 9; Dental, Tu., 9. *Operations.*—Daily, 2.

London Temperance. *Attendances.*—Medical, M. Tu. W. Th. F., 1.30; Surgical, M. Th., 1.30. *Operations.*—M. Th., 4.30.

London Throat, Great Portland Street. *Attendances.*—Daily, 2; Tu. F., 6. *Operations.*—Daily, 2.

Metropolitan. *Attendances.*—Medical and Surgical, daily, 2; S., 9; Obstetric, W., 2; Eye, W., 2; Throat and Ear, Th., 2; Dental, Tu. Th. S., 9. *Operations.*—Tu. W., 2.30; Th., 4.

Middlesex. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., 1.30; o.p., M., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu. F., 9; Skin, Tu., 4; Th., 9.30; Dental, M. F., 9.30; W., 9. *Operations.*—Daily, 1.30.

National Orthopædic. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

New Hospital for Women. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30. *Operations.*—Tu. F., 9.

North-West London. *Attendances.*—Medical, daily, exc. S., 2; S., 10; Surgical, daily, exc. W., 2; W., 10; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

Royal Ear, Frith Street. *Attendances.*—M. W. F., 3; Tu. F., 9.30 and 7.30. *Operations.*—Tu., 3.

Royal Eye, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

Royal Free. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, W., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

Royal London Ophthalmic. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

Royal Orthopædic. *Attendances.*—Daily, 2. *Operations.*—M., 2.

Royal Westminster Ophthalmic. *Attendances.*—Daily, 1. *Operations.*—Daily, 2.

St. Bartholomew's. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. W. F., 2; o.p., W. S., 9; Eye, M. Tu. W. Th. S., 2; o.p., M. Th., 9; W. S., 2.30; Ear, Tu. F. 2; Skin, Tu., 9; Larynx, Tu. F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9; Electrical, M. Tu. Th. F., 1.30. *Operations.*—Daily, 1.30; (Ophthalmic), Tu. F. 2; Abdominal Section for Ovariotomy, F., 2.

St. George's. *Attendances.*—Medical and Surgical, daily; i.p., 1; o.p., 12; Obstetric, i.p., Tu. F. 1.45; o.p., M. Tu., 2.30; Eye, W. S., 1.30; Ear, Tu., 2; Skin, W., 2.45; Throat, F., 2; Orthopædic, F., 12; Dental, M. Tu. F., S., 12. *Operations.*—Daily, 1; Ophthalmic, M., 1; Dental, Th., 9.

St. Mark's. *Attendances.*—Fistula and Diseases of the Rectum, males, S., 2; females, W., 9.30. *Operations.*—M., 9; Tu., 2.30.

St. Mary's. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 12.45: Obstetric, Tu., F., 1.45; o.p., M. Th., 1: Eye, Tu. F., 9; Ear, M. Th., 9; Throat, Tu. F., 3; Skin, M. Th., 9; Dental, W. S., 9; Electro-Therapeutics, M. Th., 2.30; Children's Medical, Tu. F., 9. *Operations.*—M., 2.30: Tu. W. F., 2: Th., 2.30; S., 10; (Ophthalmic), F., 10.

St. Peter's. *Attendances.*—M., 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

St. Thomas's. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F. 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Th., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. F., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

Samaritan Free for Women and Children. *Attendances.*—Daily, 1.30. *Operations.*—Gynæcological, M., 2; W., 2.30.

Throat, Golden Square. *Attendances.*—Daily, 1.30; Tu, F., 6.30. *Operations.*—Daily, exc. M., 10.

University College. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. F., 1.30; Eye, M. W., 1.30; Ear, M. Th., 9; Skin, Tu. F., 2; Throat, M. Th., 9; Dental, Tu. F., 9.30. *Operations.*—Tu. W. Th., 2.

West London. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th., 2; Ear, Tu., 2; S., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, M. Th., 2; Skin, M. F., 2; Throat and Nose, Tu., 2; S., 10. *Operations.*—Daily, about 2.30; F., 10.

Westminster. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, Tu. F., 9.30; Ear, Tu., 1.30; Skin, W., 1.30; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are directed will be found under their respective headings.*

QUERIES.

S. asks for suggestions for the treatment of an obstinate case of gonorrhœal rheumatism. Nearly every joint is affected.

TURCO asks what books would be most useful to a person reading for the diploma in Public Health of the Conjoint Scottish Colleges.

L. M. desires to know of any sanatorium for a patient aged 30 with quite incipient physical signs of phthisis. The patient has no means, but friends would assist him.

QUÆRENS would like to know the best local anæsthetic for the removal of small growths, circumcision, etc.—in fact any small operation—where it is not necessary to administer chloroform or ether.

PROGNOSIS IN FACIAL PARALYSIS.

DR. ROBERT MACKINLAY (Santa Barbara, California) asks for an opinion as to the prognosis of a case of facial paralysis that occurred in a youth, aged 18, two or three days after an operation on the mastoid antrum of the same side, and has not improved in spite of electrical treatment of six months' duration.

*** The prognosis, as in all cases of peripheral facial paralysis, is modified by the condition of the electrical excitability of the paralysed muscles. If there is now reaction of degeneration, recovery, if it occur at all, cannot be expected for several months. The absence hitherto of any improvement, the causal relation to ear disease, and probably to injury of the nerve during the operation are unfavourable. If the muscles do not react to galvanism, or if there is much contracture, the case is well-nigh hopeless, but if otherwise, hope of recovery should not be abandoned for at least another year.

ANSWERS.

R. M.—The urethra should be examined in order to determine the source of the shreds. Treatment would depend on what was found.

CYMRO might communicate with the Secretary of the Medical Defence Union, 4, Trafalgar Square, W.C.

A.E.C.—The question is hardly susceptible of any satisfactory answer unless the period of the illness at which death took place (whether during the acute attack or later) be stated.

COTTAGE.—We can see no reason why a medical man should not take a leading part in the foundation of a cottage hospital. The best way to begin would be to consult in the first place all the medical men practising in the district to be served by the proposed hospital.

E.R.F.M.—The action of the officer, which has not unnaturally caused our correspondent some annoyance, was in all probability due to an error of judgment. We should be inclined to recommend our correspondent to communicate with the Secretary of the Society stating the facts.

DR. L. W. K. TRUBRIDGE writes to point out that "Mesmer" will find full information as to pellagra in Professor Lombroso's book, a German translation of which was reviewed in the BRITISH MEDICAL JOURNAL of Februry 4th, 1899, p. 282. A copy of the translation is in the Library of the British Medical Association.

ENQUIRER.—Probably the most useful book for the purpose would be the *Manual of Family Medicine and Hygiene for India*, by the late Sir William Moore (London: J. and A. Churchill. 12s.) A general manual of nursing, with a sketch of elementary physiology, such as that by Laurence Humphry, published by Charles Griffin and Co. (3s. 6d.) might also be of service.

OCULENS.—The case appears to be one of paralytic valgus. The usual specific remedies should be adhered to; and locally massage and galvanism to the calf muscles will prove of service. If the flat foot is of a moderate degree, a boot with the inner edge of the sole and heel one third of an inch thicker than the outer, and with a vulcanised pad sewn in the boot, will be of service. But if there is much loss of power in the leg, a walking apparatus, single outside from the ground to the calf, with a valgus pad and T-strap, will be required. This is described in Tubby's *Deformities*, p. 479, and may be obtained of any well-known instrument maker.

T. F.—On the whole, as the facts are disclosed in the two letters, we can blame neither practitioner. The statements of what the mother said differ. Hearsay evidence usually does, and we think no medical man ought to blame a professional brother on mere hearsay testimony. If A. had been in continued attendance, B. should have retired, but when A. was sent for to people usually attended by B., he might not unreasonably have inquired if his summons was merely official as his father's deputy. B. probably considered himself bound to notify the cases, and we cannot say that he was wrong in so doing. We may refer our correspondent to the paragraph entitled Notification in Duplicate, p. 427.

CIVIL MEDICAL OFFICER IN A POOR COLONY.—Condensed milk is not generally employed as a substitute for fresh milk in hospitals in England, but where cow's milk costs 5d a quart it would probably prove more economical. It is as a rule taken without difficulty by patients suffering from gastric disturbance, and there is no reason for thinking that its introduction would damage the health of the patients or affect the reputation of a public institution. It will, however, be necessary to make sure that a good brand of condensed milk is obtained containing all the cream of the original milk. Condensed milk made from separated milk would not be a suitable substitute for fresh milk.

B. W.—The apparatus depicted is not a satisfactory one for giving nitrous oxide gas by itself. It answers fairly well when that anæsthetic is employed simply as an introduction to the giving of ether. For "gas" a considerably larger bag is advisable, and expiration valves either in the face-piece or in the three-way stopcock. The larger gas and ether inhaler designed by Clover, and more recently improved and sold by Mayer and Meltzer is probably the best for giving gas and ether, but the one mentioned in our correspondent's letter is satisfactory, although perhaps less handy.

MOTOR CARS.

MOTOR AND F. H. M.—The following are the names and addresses of the makers of the motor cars mentioned in the BRITISH MEDICAL JOURNAL of December 3rd, 1898, p. 1719: Daimler Motor—Daimler Motor Company, Limited, 219 to 229, Shaftesbury Avenue, London, W.C.; De Dion and Bollee Motors—Motor Manufacturing Company, Limited, 47, Holborn Viaduct, London, E.C.; Benz Motor—Messrs. Benz, Mannheim, Germany.

TINNITUS AND ELECTRICITY.

DR. J. J. WALLACE (Weobley, Herefordshire) writes in answer to "H. T. T." (BRITISH MEDICAL JOURNAL, February 11th, page 386): The best form of electricity for tinnitus is the "*souffle*" from a Wimshurst static machine. The *souffle* may be directed into the ear or through the open mouth to the back of the pharynx. In the latter use the electrode should have a vulcanite guard, and the operator should test the current in his own mouth, using a mirror to direct the electrode. No sparks should be drawn. The interrupted current of a Spammer battery would probably aggravate the disturbance.

COMMERCIAL USE OF POTASSIUM CYANIDE.

G.H.—The occurrence in workmen of chronic potassium cyanide poisoning is extremely rare. In the reports of the factory inspectors of Great Britain, France, Germany, Austria, Holland, and Switzerland no case has been reported during the last twenty years. Reuter states that during thirty years' experience of electroplating works he has never seen any bad results from inhalation of the fumes. The symptoms of chronic poisoning are dryness of the throat, oppression of the chest, palpitation, and muscular weakness. These do not occur if the most ordinary precautions as to cleanliness are taken.

PARROTS AND TUBERCULOSIS.

R.E.G.P.—It is not easy to make any very definite statement concerning the risk of acquiring tuberculosis from parrots. Some authors (Fröhner) find that tuberculosis is quite a common affection of parrots, whilst others (Greene, *Lancet*, 1897, p. 1367) have met with very few cases. It appears that when the birds are affected they are especially liable to show superficial lesions, such as swellings, covered with horny crusts, about the eyelids, conjunctivæ, commissures of the beak, wings, etc.; in this they differ from other birds (fowls, etc.). As the disease progresses they become emaciated. Experiments made by Straus to infect parrots were successful only when cultures of "avian tubercle" were used for the inoculation. Probably the risk of contracting tuberculosis from parrots is extremely slight. If the birds are healthy and are kept under sanitary conditions, and are not kissed or otherwise brought into close contact with their owners, it is difficult to see how they can be a very serious factor in the spread of tuberculosis.

NOTES, LETTERS, Etc.

THE APPEAL ON BEHALF OF THE WIDOW OF THE LATE JAMES MCGREGOR LAING.

DRS. J. PICKETT (Colville Square) and **REGINALD HARTLEY** (Porchester Terrace) write: The following donations have been received in addition to those already acknowledged in the BRITISH MEDICAL JOURNAL of July 9th and October 29th, 1898: Dr. T. Brett Young, Halesowen, £1 1s.; W. F. B., £1 1s.; and we think it now advisable to close the account. A small business has been found for Mrs. Laing. We beg to thank you for your courtesy in allowing the appeal to appear in the JOURNAL.

SANITATION IN ALDERSHOT.

IN the letter from Dr. Moyle O'Connor published in the BRITISH MEDICAL JOURNAL of February 11th, p. 376, in col. 2, line 32 from bottom, "disease" should read "decrease." In line 16 from bottom "smaller" should read "similar." And in line 13 from bottom, "mixing freely" should read "and mix."

THE PATHOLOGICAL SOCIETY.

DR. T. WARDROP GRIFFITH (Leeds) writes: In your report of the meeting of the Pathological Society, held February 7th, the necessarily greatly abridged expression of my views as to the causes of fusiform dilatation of the œsophagus, credits me with the suggestion that some irritation of the stomach may cause atony of the œsophagus. What I wrote in my paper on the subject (*Medical Chronicle*, November, 1898) was: "Atony or paralysis of the muscular coat (of the œsophagus), whether due to nervous influences or secondary to œsophagitis, has, however, a place in the explanation of the condition—namely, in its initiation."

SIERRA LEONE.

THE following information with regard to the outfit suitable for a person proceeding from this country to Sierra Leone, with some particulars as to the care of health which have been furnished to us by an experienced member of the profession, may be of use to some of our readers: For outfit, light summer clothing of tweeds, light under vests, and drawers and stockings all wool. A soft felt wideawake. Field boots and putties. Light flannel shirts and a suit of tennis tweeds, also pyjamas for sleeping in of wool. A sponge, towels, and looking glass. Portable bed and bedding in valise from A.S.U. stores. A light 12-bore shot gun and a Winchester carbine large ball. Plenty of ammunition. A waterproof coat; umbrella, one white cotton. Light walking boots and strong slippers. A lantern. A medicine chest and surgical instruments same as supplied by Messrs. Burroughs and Wellcome to the Sierra Leone Boundary Commission. See medical officers report of same at Colonial Office. Read Patrick Manson on *Tropical Diseases*, Grant's *West African Hygiene*. Make a special study of remittent fever and pernicious remittent fever, and recollect intermittent fever is not of frequent occurrence and seldom met with at Sierra Leone. "Blackwater fever" is pernicious remittent fever and is not an official name. Yellow fever outbreaks are not uncommon on the West Coast of Africa. Read paper on Yellow Fever, 1884, in BRITISH MEDICAL JOURNAL, 1885, at Sierra Leone. At the commencement of the rainy season, May-June, as a rule outbreaks of remittant fever are common and of a severe type. During the dry season the Colony is fairly healthy, as it is when the heavy rains are falling, July-September. Avoid exposure to the sun; avoid chills. Take plenty of exercise in the morning up to 11 or 12 o'clock noon and from 4 P.M. to 7 P.M. Change when the clothing is damp, it is therefore necessary to take quite a dozen under vests and two suits of tweed; one a blue serge, other light Harris. Working hours for Europeans should be from 5 A.M. to 12 and from 3 or 4 to 6 or 7 P.M. Hot chocolate and biscuits before going out. Breakfast on return to camp 11 to 12, after the bath. No lunch. Dinner must be very substantial, with soups, fish, joints, and wines and spirits.

WEATHER AT SEVENOAKS, 1898.

MR. W. W. WAGSTAFFE has issued an interesting and succinct report of the weather at Sevenoaks during the past year. The month with the highest average temperature was September, with 71°; the actual maximum of any day was September 8th, 88°, and that month was on the average as much as 8° higher than usual. The lowest average temperature of any month was March, 33.0°. The actual minimum was 20° on February 21st, and the minimum in every month equalled or was above the average, excepting June, when the deficiency was 4°. The highest amount of rain was in May (3.19 inches), the lowest in September (0.47 inch). The highest amount collected in any single day was in June (1.51 inch); the highest in any single night was in October (2.32 inches). In only one month (May) was the rainfall above the average; in July it was no less than 3.22 inches below the average of that month. In September rain fell on five days only, in May on twenty-one days. The rainfall of the whole year was 20.65 inches (of which 8.18 inches fell in the day, 12.47 inches in the night), and it was no less than 11.41 inches below the average of the ten previous years. The prevailing wind was from a westerly direction in every month except in the second week of March (N.E.) and in the first half of October (E.). Frost occurred on 6 nights in January, 11 in February, 19 in March, 8 in April, 1 in May, 4 in November, 8 in December. Snow fell on 2 days in February and 4 days in March. Strong gales prevailed on November 23rd and 26th, and on December 27th.

ACADEMICAL COSTUME.

M.R.C.S.ENG. writes: May I inform your correspondent, "Nothing Venture, etc.," that in the clerical profession a licentiate of a theological college has no right to call himself a Doctor of Divinity, or wear a hood showing that he is a graduate in theology of a university. Therefore why should a Licentiate, Member, or Fellow of a college of physicians or surgeons presume to either call himself Dr., or to wear the hood, which is the distinctive privilege of a university graduate? Of course, if he has an Arts, Science, or other university degree he would wear the distinguishing hood of the degree, according to its shape and colour denoting the university to which he belonged. Is there not a little bit of humbug in wanting to appear what a man is not?

DR. FREDERICK W. COLLINGWOOD writes: It will be noted with regret by many that the authorities of the Royal College of Surgeons of England have seen fit to postpone *sine die* the consideration of the question of permitting Members to wear a distinctive gown. It is difficult to see on what grounds the authorities have come to this decision. If Fellows are sanctioned to wear a distinctive garb why should not a similar privilege be extended to Members? The policy of ignoring the feelings and wishes of Members, both by non-recognition of a reasonable wish and excluding them from the franchise, is at strange variance with modern notions in connection with institutions around us, and compels us to look for a counterpart of their policy to the early institutions of Rome. Considering the financial support rendered by the Members, apart from other considerations, it will, I submit, be thought by most unbiassed persons an anomalous policy for a college to pursue in the nineteenth century.

M.R.C.S. writes: The usual custom at most colleges and universities is that where Fellows wear gowns Members do the same; to which the Council of College of Surgeons seem to take exception. In order to equalise matters and make them agreeable to all parties concerned I venture to suggest: 1. That both Fellows and Members have a special gown to wear on all suitable occasions. 2. That the colour of the gown be royal blue with red facings. 3. That the distinction between Fellows' and Members' gowns should be by the shape and texture of the gown worn, as is the case with Queen's Counsel and ordinary Barristers-at-Law. 4. That the matter should at once be taken in hand by the College Council and brought to a happy conclusion instead of causing angry feelings by delay.

THE MIDWIVES BILL.

DR. FRANK M. POPE (Leicester) writes to point out that in the draft of the Midwives Bill as amended, published in the BRITISH MEDICAL JOURNAL of February 11th, p. 350, Clause II, paragraph 1, the words "cases of" in line 2 of the paragraph were on his proposal directed to be omitted. The paragraph of the clause should read: "In this Act the term 'midwife' means a woman who undertakes for gain to attend women during natural labour and the lying-in period," etc.

CONSUMPTIVE PATIENTS IN CAPE COLONY.

DR. EDWARD S. B. EAMES, M.R.C.S.Eng., L.R.C.P., late Surgeon Union S.S. Co. (Bury St. Edmunds, Suffolk) writes: In a letter which I have read in the BRITISH MEDICAL JOURNAL for January 21st *re* consumptive patients in Cape Colony, I can speak with a certain amount of experience as regards the condition in which some of them are sent out. During my last voyage to the Cape, there were about eighty third-class passengers; out of that number there were quite twenty of them in various stages of phthisis. I will quote three cases to show how absurd it is to place them on board ship for a voyage of three weeks or more.

Case I was a youth, aged 18. He came on board with hæmoptysis, which became very profuse a few hours after we started. He remained ill on and off during the whole voyage. He arrived in Cape Town with a few shillings in his pocket, and knowing no one.

Case II was a man with advanced fibroid phthisis. His means were very limited, so much so that a subscription was got up for him by the kindness of some of the lady passengers. This man died four days after landing.

Case III was a youth with an empyema tube in his side and advanced lardaceous disease.

Now, Sir, if these cases occur on one ship during one voyage, how many such people arrive at the Cape in the course of a year?

GLASGOW OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

DR. ROBERT JARDINE (Glasgow) writes: In the condensed report of my paper on Saline Injections, which appeared in the BRITISH MEDICAL JOURNAL of February 4th, there are several errors. "Glass filters" should read "glass filter." The amounts of bicarbonate of potash and common salt used in eclampsia cases is half a teaspoonful of each and not a teaspoonful to the pint.

THE EPIDEMIOLOGICAL SOCIETY.

DR. GEORGE F. STILL (Gower Street, W.C.) writes: In the report of the paper read by Dr. Bruce Low at the Epidemiological Society, on Epidemic Cerebrospinal Meningitis, in the BRITISH MEDICAL JOURNAL of February 4th, you publish the following statement: "Jaeger of Stuttgart proved that this (the diplococcus intracellularis) which he called tetracoccus was itself characteristic and causative of the epidemic cerebrospinal fever, distinguishing it from the other forms of meningitis. His conclusions had since been fully confirmed by numerous observers in Germany, Austria, and America, and by Dr. Still in this country, who had by its means identified the so-called 'infantile paralysis' with the disease under consideration"—that is, epidemic cerebrospinal meningitis. Dr. Bruce Low made no such statement. The sentence referred to is this: "Dr. Still, in the *Journal of Pathology and Bacteriology*, No. 2, 1898, contributes a paper on Simple Posterior Basic Meningitis of Infants, and again, in the BRITISH MEDICAL JOURNAL of October 15th, 1898, he writes on the same subject, and expresses the opinion, based on *post-mortem* examination and bacteriological investigation, that this infantile ailment, the simple posterior basic meningitis of infants, is a specific disease due to an infection associated with a particular micro-organism. He believes this organism to be only a variation or modification of the diplococcus intracellularis of Weichselbaum."

REICHARDT FUND.

DR. GOODHART (25, Portland Place, W.) and Dr. Savage (3, Henrietta Street, Cavendish Square, W.) write to acknowledge the following further subscriptions, and are pleased to report that many of Dr. Reichardt's patients and lay friends are subscribing to a separate fund.

	£	s.	d.		£	s.	d.
Mr. W. J. Walsham	5	5	0	Mr. H. D. Palmer	1	1	0
Dr. Samuel West	2	2	0	Dr. J. Kenrick Jones ...	1	1	0
Miss Flora Petley	2	2	0	Mr. Rayley Owen	1	1	0
Dr. J. C. Barker	1	1	0	Mr. Claude Haye	1	1	0
Dr. Hugh Ealand	1	1	0				

MEMBRANOUS COLITIS AND COLOTOMY.

DR. R. NEALE (Hampstead, N.W.) writes: I have waited several weeks to see whether anyone traversed the statement of Dr. J. Christian Simpson, at p. 1493 of the BRITISH MEDICAL JOURNAL in December, 1898, that "Mr. Keith's claim to the priority of this operation has never been disputed." A reference to the *Medical Digest*, Section 866:3 (Appendix) will show that in 1893 Mr. Mayo Robson read a paper upon Colotomy in Membranous Colitis before the Clinical Society, and in the discussion that followed, Mr. H. B. Robinson stated that he had performed a similar operation in 1891. Is it not advisable for gentlemen to see what has been done during the last 50 years before making positive statements, when they have at hand such facilities as the *Medical Digest* affords?

INTRACEREBRAL INJECTION OF ANTITOXIN.

DR. W. STEWART MACDOUGALL (Wallington, Surrey) writes: In referring to the operation for "sturdy" in sheep as suggesting a simpler method of intracerebral injection of antitoxin, Dr. Watson (BRITISH MEDICAL JOURNAL, February 4th, p. 324) does not take into account an important fact in the pathology of "sturdy." In order to locate the cyst the sheep-farmer usually waits until the overlying area of bone has become so softened as to pit on pressure with the thumb-nail. The trocar in going through this softened part of the skull meets no more resistance than it would in going through carious bone, and of course there can be no splintering of the inner table.

AN UNUSUAL CAUSE OF DYSTOCIA.

DR. SOPHIA GRUMPELL (Cape Colony) writes: Several years ago, while holding an appointment in India, I was sent for by my assistant to a case of labour. I found the patient, a primipara, a tall well-built young woman 18 years of age. On examination the arm was found prolapsed, having evidently been pulled on by the native *dai*. I found a roomy pelvis, and anticipated no difficulty in turning, but found that though the fœtus was freely movable for about an inch either way it then met with some obstruction. On introducing my hand I found a partial septum about 3 inches long and the child lying with the head on one side of the septum and the knees on the other, hence the impossibility of turning from without. I then seized the outside foot—the right—and by turning the body round from before backwards brought it down, the other following; the rest of the delivery was easy.

"PHOSPHATIC DIABETES" FOLLOWING INFLUENZA.

MR. C. OWEN-SNOW, M.B., C.M.Aberd. (Government District Surgeon, George Town, Cape Colony) writes: Tessier has proposed the name "phosphatic diabetes" to cases in which the earthy phosphates are increased, both absolutely and relatively to the alkaline phosphates, as distinguished from "azoturia," in which the urea, and "baruria," in which all the solids in the urine are increased. This is a subject which receives scant attention in the textbooks, and one to which I venture to draw attention as a not altogether uncommon and a troublesome sequela of influenza. I give brief notes of one case: F. S., aged 46, farmer, had had a sharp attack of influenza; this was followed by symptoms of chronic gastritis, and pains, aches, and tremors of bewildering complexity of which he had made a careful study, and for which he had applied acetic acid, poultices made of beaten-up eggs and bran, and other more or less heroic remedies. He was a well-built man of neurotic temperament, heart and lungs normal, tongue large, flabby, and covered to the tip with a thin white fur. Urine (average) 59 ounces, specific gravity 1014, whey-coloured, slightly alkaline, deposited phosphates, urea 510 grains, albumen and sugar absent.

His recovery was slow. The treatment was dietetic and moral, assisted by warm baths and a mixture of nitro-hydrochloric acid and strychnine mixture. Has the increased metabolism of the nervous system present in influenza any causal relation to this condition, or is it due wholly to dyspepsia?

LETTERS, COMMUNICATIONS, ETC., have been received from:

A Another P.V.; Mr. C. E. Ady, London; Mr. H. Aitken, London. **B** Mr. W. Brown, Carlisle; Dr. J. H. Bryant, London; Mrs. Bond, Lincoln; Dr. G. T. Beatson, Glasgow; Mr. J. E. Barnes, Clare; Mr. J. P. Bush, Clifton; Dr. A. N. Boycott, St. Albans; Mr. E. C. Bousfield, London; Mr. H. Brevitt, Wolverhampton; B.; Dr. J. W. Ballantyne, Edinburgh. **C** Dr. W. H. Calvert, Melrose; Mr. R. G. Coombe, Southminster; Mr. W. F. Clark, Cheshunt; Civil Medical Officer in the Port Colony; Dr. J. H. Crocker, Eccles; Mr. A. E. Crabbe, New Brompton; Mr. F. G. H. Cooke, London; W. W. Cheyne, M.B., London; Dr. A. E. Cooper, London; Dr. A. Cordes, Geneva; Mr. B. A. Cheverton, London; Cymro; Dr. J. M. Clarke, Bristol; Dr. W. A. Carline, Lincoln. **D** Mr. A. W. Dalby, Frome; Mr. W. R. Davy, Letterkenny; Mr. R. H. Dreaper, Mossley; Mr. C. A. Doran, Rochdale; D. A. Davies, M.B., Swansea; Dr. A. T. Davies, London; Dr. W. G. Dunwoody, Ely. **E** E. (Wales); R. O. Elsworth, M.B., Swansea; Enquirer; Ex-Club Doctor; W. Edmunds, M.B., London; E.R.F.M.; E.R.S. **F** Fair Play; "Food Journal," Editors of the, London; A. G. Francis, M.B., Hull; Mr. C. E. S. Flemming, Bath; F.C.S.; Mr. W. T. Freeman, Reading; Dr. J. W. Findlay, Dennistoun. **G** Mr. A. I. Garland, Oamaru, N.Z.; Mr. J. Gabb, Bewdley; F. W. A. Godfrey, M.B., Scarborough; Dr. T. Graham, Paisley; W. Gripper, M.B., Wallington; Mr. J. Gay, London; Rev. T. Given-Wilson, London; Mr. L. Gabbe, Milan; G.P. **H** H.H.; Dr. R. Hartley, London; Dr. T. B. Hyslop, London; Mr. D. Headridge, Manchester; Mr. C. H. Haycroft, Bow; Dr. A. R. Hall, London; Dr. J. P. Henry, London; Mr. W. Holder, London; Honesty is the Best Policy; Dr. R. Hutchison, London; Mr. E. W. StC. Hannah, Aberdeen; Mr. R. Henry, Porthleven. **I** Inquiro; Inquirer. **J** Dr. E. L. Jones, Cambridge; Dr. R. Jardine, Glasgow; Mr. S. James, Samastipur; W. D. Johns, M.B., Bournemouth; Justus; J.G.; Mr. E. B. Jones, Brighton. **K** C. S. Kilner, M.B., Bury St. Edmunds. **L** Dr. T. M. Legge, London; Louis de Redmount, L.S.A. **M** Member; Mr. H. C. P. Masser, Foleshill; Messrs. J. F. Macfarlan and Co., Edinburgh; Major R.A.M.C.; M.R.C.S.; M.B.; Mr. E. Merck, London; M.R.C.S., L.R.C.P.; M.B. and C.M.; Dr. G. H. Mackenzie, Edinburgh; Dr. H. M. Montgomerie, Penzance; Dr. W. A. McKeown, Belfast; M.D.; M.B; J. M. Morris, M.B., Neath; M.D., M.R.C.S; W. S. McDougall, M.B., Wallington. **N** Dr. F. Nicholson, Hull; B. K. Nariman, M.B., Liverpool; Nottingham Medico-Chirurgical Society, Secretary of; N.B.U. **O** Dr. W. M. O'Connor, Aldershot; Oculens. **P** Mr. J. P. Purvis, London; Mr. J. H. Parker, St. Louis; Dr. S. T. Pruen, Cheltenham; Dr. J. Parker, London; F. M. Pope, M.B., Leicester; Mr. T. Partridge, Stroud; Public Tormentor; R. G. Patteson, M.B., Dublin. **Q** Quæror; Quærens. **R** Mr. T. F. Raven, Broadstairs; Ruling; Dr. H. B. Robinson, London; Dr. A. J. Rodocanachi, Ashton-under-Lyne; Dr. G. H. D. Robinson, London; Royal Agricultural Society of England, Secretary of, London; Retired; Dr. J. C. Ross, Manchester; Dr. E. N. Reichardt, Ewell. **S** Dr. J. F. W. Silk, London; Dr. G. F. Still, London; "Star," Editor of the, London; Saxon; Mr. G. M. Sharpe, Leeds; Mr. A. J. Sharp, Whitby; Mr. J. L. Stretton, Kidderminster; C. Sanders, M.B., London; Mr. P. L. Sclater, London; E. T. C. Smith, M.B., Mount Morgan; Dr. J. B. Siddall, Bideford; Mr. W. P. Stocks, Salford; Mr. J. C. Swinburne-Hanham, London; W. W. Sinclair, M.B., Ipswich; Dr. E. M. Sympson, Lincoln; Mr. O. C. Smithson, Grays. **T** Mr. L. Tait, Birmingham; Mr. W. T. Thomas, Liverpool; Turco. **V** Mr. T. F. Vaisey, Winslow. **W** Mr. J. Wilson, London; Dr. F. Willcocks, London; Mr. B. Walker, Kirkby-Stephen; Workhouse Medical Officer; Dr. S. West, London; Mr. J. S. Walker, Banff; Mr. G. D. Wilson, London; W.H.G.; J. J. Wallace M.B., Weobley. **Y** Mr. H. S. Young, London; etc.

BOOKS, ETC., RECEIVED.

Medical Works of the Fourteenth Century. By Rev. Professor G. Henslow, M.D., F.L.S. London: Chapman and Hall. 1899. 21s.

General Physiology. By M. Verworn, M.D., Ph.D. Translated from the second German edition, and edited by F. S. Lee, Ph.D. London: Macmillan and Co. 1899. 15s.

La Maladie de Carrion ou la Verruga Péruvienne. Par E. Odriozola. Paris: G. Carré et C. Naud. 1899.

La Photothérapie. Par N. R. Finsen. Paris: G. Carré et C. Naud. 1899.

South Africa as a Health Resort. By A. Fuller, M.B., C.M., M.R.C.S. Sixth edition. London: Union Steamship Co. 1898. 1s.

⁂ In forwarding books the publishers are requested to state the selling prices.

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THE MILROY LECTURES
ON THE
EARTH IN RELATION TO THE PRESERVATION AND DESTRUCTION OF CONTAGIA.

Delivered at the Royal College of Physicians of London

By G. V. Poore, M.D., F.R.C.P.Lond.,
Professor of Medical Jurisprudence and Clinical Medicine, University College; Physician to University College Hospital.

Lecture I.
Earth.

Mr. President and Gentlemen,—That which we commonly speak of as "earth" is largely composed of excreta and the dead remains of animals and vegetables which, as the result of fresh biological processes, are either returned to the bodies of living vegetable organisms, or, after becoming mineralised and soluble, are washed downwards by the rain and ultimately find an exit in the sea. It is obvious that not only does "earth" vary in composition with the varying conditions of subsoil, climate, flora and fauna, but that "earth" must undergo seasonal variations necessitated by the vigorous upgrowth in the spring or the decay of the fall—the heat and drought of summer or the flood and frost of winter. The interstices between the particles of "earth" are filled at one time with air, at another time with water, and the line of demarcation between earth and air on the one hand, and earth and water on the other, is often not very definite. Again, the dust which is suspended in the air and which settles on everything is liable to contain infective particles, harmless to breathe but dangerous if they fall upon a wound. It is obvious that such particles may be regarded as belonging to the earth or the air. Some of them doubtless emanate from the earth, having been raised as dust; but we must admit that there may be organisms which grow in the air, live in the air, and die in the air without ever touching earth or water and which elude all attempts at identification or artificial cultivation. While there are organisms which may live equally well in air or water others are probably more exclusive in their obligatory conditions. The mutual interaction of earth, air, and water must never be lost sight of. It is the life in the earth, both vegetable and animal, which helps, by its influence on vegetation, to maintain the quality of the atmosphere. Again, it is the earth which gives the quality to spring and river water. Pure water is a body of definite chemical composition and pure air is a tolerably definite mixture of gases, and it is not difficult to approximately measure the degree of pollution of either. The chemical composition of earth, however, is complex and constantly changing, so that it is not possible for the chemist to fix any standard of quality. The practical agriculturist by the aid of touch, smell, and vision will say at once whether any given sample of earth is foul or pure, sour or sweet, rich or poor, fertile or sterile, and we must perforce content ourselves with the terms used by the practical man. The word "earth" in the ensuing lectures will usually be regarded as meaning humus in a healthy condition.

There are certain organisms which are constantly found in the earth, and which appear to be ubiquitous. They adhere to our skins and clothing, get under the nails, and lodge in the hair. They produce various disorders of wounds and diseases in wounded persons, and we now recognise that in the absence of those precautions which we call "antiseptic" it is never safe to inflict even the smallest wound. The organisms which produce the various wound infections are saprophytes which flourish external to the body. They are ubiquitous and (probably) necessary, and so long as we have a whole skin and uninjured mucous membrane they do us no harm. As all organic matter is constantly circulating, passing through death to other forms of life, and necessarily undergoing humification in the process, it follows that the agents of these changes, the microbes which are to this end hatched in the soil vary with the circumstances. Dr. Houston[1] gives the estimated number of microbes per gram found in twenty-one samples of soil. These vary from 8,326 in a virgin sand and 475,282 in a virgin peat, to 115,044,492 in the soil from the trench of a sewage farm. Broadly speaking, the microbes bear a direct proportion to the amount of dung. Warington estimated that a gram of dung from a cow fed on hay contained 165,000,000. They all presumably have their optimum conditions—chemical and physical qualities of the nutritive medium, access of air or other gases, lightness or darkness and temperature—and when the optimum conditions concur, growth and multiplication go forward at a pace which we can hardly appreciate. The fact that for the growth of some the access of air is necessary, while others obtain their oxygen from the medium in which they grow, and others again are able to take in oxygen from either source, has formed the basis of a classification which has assisted our understanding.

Saprophytes, including those which produce wound infection, are presumably of service in bringing about the decomposition of complex organic bodies. Whether we are able to check the growth and multiplication of these facultative parasites outside the body is doubtful, and whether or not we should be gainers by so doing, is still more doubtful. Bacteriologists have experienced no little difficulty in discovering the exact conditions which are necessary for the growth and development of many of the micro-organisms which have been studied. Some organisms are more exacting than others, and those which are best able to accommodate themselves to varying circumstances naturally obtain the mastery when several are attempting to grow simultaneously in the same medium. Some of the larger saprophytes, such, for instance, as the common mushroom, require no little skill for their artificial production, involving far more attention to exact details than is necessary with ordinary green-leaved garden plants. We know that for a few weeks in the autumn they may appear in great numbers in dry pastures where horses have been fed, provided the conditions of the air as to temperature, light, and moisture be favourable, and we also know that directly the necessary conditions fail, the mushroom harvest is at an end. We also know how strange is the predilection of certain fungi for the dung of particular animals, and I would allude to a list furnished to me by Mr. George Murray, F.R.S., which shows that the optimum conditions for the growth and development of these short-lived and delicate organisms must be marvellously subtle, probably quite beyond the ken of the chemist.

I will now proceed to deal *seriatim* with some of the contag which are best understood, and will begin with

Tetanus.

Among the organisms which are habitually found in earth is the bacillus of tetanus. It is said to be present in almost all rich garden soils, and that the presence of horse-dung favours its occurrence. It is strictly anaërobic, and has been artificially cultivated by Kitasato in an atmosphere of hydrogen. It forms spores, and grows best at a blood heat. Marchesi has found it at a depth of 2 metres, but no lower. The pure cultivation of the bacillus, which has a disagreeable aromatic odour, is often not very virulent. It is fatal to animals as well as man, and among animals the horse appears to be most liable to be attacked. Infection always takes place by inoculation through the wounded skin or mucous membrane—never, it is believed, through the healthy alimentary or respiratory tracts. Cases of "idiopathic" tetanus are reported, but it has fallen to the lot of few of us to see a case, and professional opinion seems to lean to the idea that in such cases the inoculated wound has been overlooked. The toxin which the bacillus brews locally in the wound is toxic to the central nervous system, and the antitoxin to be effectual must, it is said, be injected subdurally into the central nervous system. The exhaustion of the nervous system seems to increase its vulnerability, which is, perhaps, the reason why tetanus has been relatively common in the domain of military surgery. There seems to be no doubt as to the ubiquity of the tetanus spore. Every child who falls on the ground and gets an abrasion of the skin, all tillers of the soil who get accidental wounds in the course of duty, and every horse which "breaks its knees" by falling in the London streets, runs a risk of inoculation with tetanus. I have made inquiry of many practitioners in the Thames valley where market gardening is the chief industry, and where countless tons of London horsedung are spread upon the land, and learn from them that tetanus is, in their experience, the rarest of diseases. Seeing that the bacillus is so strictly anaërobic, one is justified in supposing that the tillage of the soil, which brings it in contact with the air and sunshine, must be unfavourable to its growth and virulence. The bacilli must die out under such conditions, and the inoculation of the spores alone is said by Vailliard, Rouget, and Vincent to be incapable of setting up tetanus. If the bacillus or the spore be carried in dust, or if either be washed into the water and drunk, we have no evidence that any harm results therefrom. In common with other microbial diseases, tetanus is more virulent in the tropics than in temperate climates. Friedberger and Frohner state that it is so common among horses in St. Domingo, especially after the operation of castration, that geldings are worth twice as much as stallions.

In an article by Mr. Sidney Villar in the *Journal of Comparative Pathology and Therapeutics* for December, 1897, an observation by Mr. Joseph Woodger is quoted, to the effect that tetanus is particularly common among horses used in dust-carts, and Mr. Villar continues: "In my own practice in Middlesex there are two farms where the disease is specially prevalent. One of these, at Alfreton, is occupied by a farmer who habitually spreads on his fields large quantities of London refuse; at the second farm, five miles away, the bailiff brought two large loads of the sweepings of London roads in 1893 and dressed his home meadows with it. On these meadows his colts and young stock were pastured, and for two and a half years tetanus was endemic on his farm; during this period six colts became affected, and I believe only one entirely escaped the disease."

This experience of Mr. Villar seems to point to the danger of placing upon grazing land material which is probably mixed with broken glass or crockery.

In connection with Marchesi's observation that the tetanus organism has not been found at a greater depth than two metres, I would allude to a fact, to which I shall return later, that this approaches the maximum depth to which the earthworm burrows. It is obvious that if a spore were carried downwards by a worm it would meet with anaërobic conditions favourable for its preservation. It is remarkable that in face of the ubiquity of the cause, the disease in man should be so rare. This is probably in part due to the fact that we wear boots.

ANTHRAX.

Anthrax is a disease which is undoubtedly connected with the soil. The bacillus was discovered by Pollender in 1849, a discovery which is just fifty years old, and marks the dawn of pathological bacteriology. The identification of the bacillus in the laboratory and the diagnosis of the disease in animals from quarter evil and septicæmia is not without difficulty, and are sufficient to throw a shade of doubt over some of the earlier observations, but the discovery of bacilli anthracis in the blood clinches the diagnosis. It was in 1850 that Rayer and Davaine described the bacilli, and in 1877 Pasteur communicated to the Academy of Sciences the important fact of sporulation observed in these bacilli by Koch and himself, and, further, pointed out that the bacillus anthracis was essentially aërobic, and was quickly destroyed in the blood of the dead animal after the onset of putrefaction.

In August, 1878, M. Pasteur fed sheep on lucerne previously watered with a pure cultivation of bacillus anthracis, and found that "in spite of the immense number of spores taken in with the food many of the sheep escaped death." The mortality was much increased when the infected food was mixed with prickly material such as the leaves of thistles and the chopped heads of barley, and the *post-mortem* examination of sheep rendered *charbonneuses* by fodder of this kind gave reason to suspect that they were really "inoculated" through injury by the prickly food at the back of the throat.

It is recognised by professional "knackers" that they run little risk of contracting "charbon" by manipulating dead animals far advanced in putrefaction, and both Pasteur and Koch have shown that putrefaction soon destroys the bacilli in the blood and tissues of an animal, and that being aërobic sporulation does not take place inside the putrefying body, but is very liable to occur in the blood which escapes from it whether upon the earth or a dung heap.

In August, 1878, Pasteur made a necropsy on the body of a sheep and then buried the carcass. Ten months and fourteen months afterwards Pasteur found spores of anthrax in the earth of this animal's grave, and established the fact by the inoculation of guinea-pigs. The spores were found in the surface soil over the grave, although since the burial the ground had not been moved. Similarly spores were found in the soil over the grave of a cow buried two years previously, and at a depth of 2 metres. These spores were found over the graves of dead animals after all the operations of cultivation and harvest. Earth taken at a distance from these graves did not give charbon.

He attributes the uprising of spores to the action of earth worms, and claims to have actually recovered spores from the bodies of earth worms living in soil polluted with anthrax. In a footnote Pasteur calls attention to the fact that in Cantal there are pastures which from time immemorial have escaped (*sont épargnés*) and others in which from time to time the cattle were decimated, which are known as "*montagnes dangereuses*," and are abandoned for several years at least. "But the cause, whatever it may be, which produces charbon in a locality disappears with time." In Beauce Pasteur saw certain fields in which the folding of sheep had been interdicted for several years—that is, since the last death thereupon from charbon. "Now we placed flocks of sheep on five of these fields, and the mortality was *nil* except in one flock where it amounted to 1 per cent."

M. Colin of Alfort, a professor at the Veterinary School, controverted some of Pasteur's experiments; a further report therefore was made on May 17th, 1881, by a commission composed of M. Bouley, M. Davaine, M. Alphonse Guérin, and M. Villemin. Earth from a twelve-year grave, a three-year grave, and from virgin soil was kept at a temperature of 90° C. for fifteen minutes, and the fine sediment injected into guinea-pigs. Of 5 guinea-pigs inoculated with twelve-year earth on March 19th, 4 died on March 21st and 22nd from septicæmia and 1 died on March 23rd from charbon. Of 5 guinea-pigs inoculated with three-year earth on March 19th, 4 died from March 21st to 23rd from septicæmia and 1 died on March 23rd from charbon. Of 5 guinea-pigs inoculated with virgin soil on March 13th none died. One had a small abscess at the seat of puncture. Of 6 guinea-pigs inoculated with twelve-year and three-year earth on March 30th, 5 died from septicæmia on April 3rd and 1 died from charbon (twelve-year earth) on April 3rd. Of 3 guinea-pigs inoculated with excreta taken from the bodies of living earth worms, 2 died from septicæmia and 1 from charbon on March 30th. Of the 19 animals killed by the above experiments, 15 died from septicæmia and 4 from charbon.

Since 1879 M. Pasteur had asserted that most soils when inoculated were capable of causing death from septicæmia quite apart from any contamination by the death of anthrax animals. Of three guinea-pigs inoculated on March 28th with worm castings taken from above the graves of some of the victims of the Commune, situated on waste land, one died from septicæmia on April 1st and two were unharmed.

Pasteur had clearly demonstrated that the anthrax bacillus is essentially aërobic, that it is soon destroyed by putrefaction, and that for sporulation free exposure to air and a temperature above 15° C. are necessary. These facts seem out of harmony with the view that earthworms bring spores from a deeply buried carcass to the surface, while the skinning and transportation of an animal dead from anthrax must necessarily be a most dangerous process.

All are agreed that anthrax is a disease liable to haunt localities.

It is alleged by Friedberger and Frohner that the spores may vegetate in the soil and surface water quite independently of the animal body. The disease is said to occur among horses, cattle, and buffaloes in Eastern Bengal, Manipur, and Burmah without the agency of infection and to be in that part of the world a truly miasmatic disease. As spore formation requires something like a blood heat, it is only what might be expected to find the disease becoming endemic among cattle and horses in tropical countries. Where infected animals drop dung and other discharges on the soil it becomes impossible to say whether the infective spore originates in the soil or in the animal. These authors assert that "there exists a well-marked connection between the disease and the amount of moisture in the soil. It appears most frequently in lowlands and plains exposed to inundations and great heat." Copeman also asserts that the disease is prevalent on damp soils containing much humus, as, for instance, upon peat bogs and near the borders of lakes and rivers which have overflowed. On the other hand, we have Pasteur speaking of "*montagnes maudites*" in connection with anthrax, and asserting that the mortality is great in soils which are *secs et calcaires*.

Many of the outbreaks of anthrax in this country have been in the neighbourhood of Bradford, and have been traced to the use of infected wool refuse as manure. A map published by the Board of Agriculture shows that the outbreaks of anthrax are most frequent in those counties of Great Britain where *dry* foreign wools, hairs, hides, and skins are manufactured into goods. It is the anthrax spore which is the danger, and if, as is the case, a high temperature and free admission of air be necessary for sporulation, an excess of water would be unfavourable for that process. There seems a concurrence of opinion that the bacillus anthracis is killed by putrefaction and soon disappears in the unopened and unskinned body. The advice which is usually given in this country to bury anthrax carcasses deeply and unopened and unskinned is doubtless sound, although it is doubtful if the depth of the grave adds materially to the anaërobism of the surroundings. It is very doubtful if in an unopened body spore formation be possible after a short period of burial. It is clear that the animal should be buried at the spot where it dies, and that the spot should be enclosed and planted with a few saplings of some indigenous tree. The value of "quicklime" is doubtful.

All Pasteur's experiments in relation to graves appear to me to be vitiated by the fact that they took place in an anthrax district, and it is very difficult to say whether the spores were derived from the buried animals or from the dung of infected ones which had been used as manure, or from the blood-stained wool which, we are told, is of "bad omen" in a flock. It is a noteworthy fact that of the 19 guinea-pigs inoculated by the Alfort Commission 4 only died from anthrax and 15 from septicæmia, and that the earth from the three-year-old grave and from the twelve-year-old grave conveyed anthrax in the same proportion, that is, 1 in four inoculations. There seems no doubt that spores may be found in earthworms or their castings, and there is equally no doubt that if the worms have brought the spores from the depths of the earth, such spores must have originally been formed on the surface. It is, of course, quite impossible to say whether a worm swallowed the spore on the surface or below it, and it is certain that recently dead bodies have no attractions for worms.

There are some discrepancies amongst observers as to the infectivity of food grown on anthrax ground. On the one hand, Pasteur was unable to do much harm to sheep by feeding them on lucerne sprinkled with spores, and, on the other hand, we have a story quoted by Pasteur of an old woman whose goat and cow died from anthrax when fed with clover stolen from over a grave two years after the burial of an anthrax animal.

Anthrax in the human subject is a rare disease. Man is never infected through the alimentary tract, as appears to be the rule among animals. Cutaneous anthrax (malignant pustule) is caused by direct inoculation.

Pulmonary anthrax, or woolsorter's disease, was first noticed in the Bradford worsted district after the introduction of alpaca and mohair as textile materials in 1837. It appears to be generally accepted that "this form of anthrax may attack any person exposed to the inhalation of anthrax spores in dust arising from the products of diseased animals." And yet I have hitherto found no records of pulmonary anthrax from the inhalation of dust from highly manured ground which must, one would suppose, especially in the West Riding of Yorkshire, often contain anthrax spores. The lungs of the agricultural labourer and the market gardener appear to be immune to the infectivity of anthrax spores. It seems to be of very great importance to bear in mind: (1) that anthrax spores persist even in the finely pulverised soil of worm castings, which must be very easily dried and converted into dust; (2) that anthrax may undoubtedly infect man by the inhalation of dust; and (3) that pulmonary anthrax among agriculturists has not been recorded. The persistence of the anthrax spore in the earth does not admit of a doubt, but there is no evidence that man is ever infected directly from from the earth. How far anthrax in animals is due to inoculation rather than to feeding requires further and very careful investigation.

DIARRHŒA.

Diarrhœa is a disease which in its epidemic form has been supposed to be engendered in the earth.

The third quarter of the year 1898[2] was characterised by a very large infantile mortality, mainly attributable to diarrhœa. The rainfall for the quarter was unprecedentedly small, the temperature was above the average, and the harvest was one of the best on record.

Excluding the towns, infant mortality in the remainder of England and Wales was in the proportion of 184 to 1,000 births. Diarrhœa caused 22,524 deaths, equal to an annual rate of 2.85 per 1,000, or 1.21 above the average rate of mortality in the third quarters of the previous ten years.

The mortality from diarrhœa was, however, mainly urban; the rates averaged 3.85 per 1,000 in the thirty-three great towns. Among counties it is the rural which have least and the industrial which have most diarrhœa; and if we turn to the mortality returns for those counties where diarrhœa was especially rife, we shall find the mortality greatest in the urban districts. It is a point not without interest to note that the diarrhœa death-rate and the fever death-rate in this quarter bore no relation to each other, and that, while the diarrhœal death-rate was 1.21 above, the fever death-rate was 0.03 below the average for the corresponding quarter of the last ten years. In the following table some figures are collected which show this very strikingly.

Table showing the Death-rates per 1,000 from Fever and Diarrhœa during the Third Quarter of 1898.

—	Fever.	Diarhœa.
England and Wales	0.16	2.85
London	0.11	3.19
Wolverhampton	0.18	6.38
Leicester	0.13	5.34
Manchester	0.09	5.38
Preston	0.28	6.41

Diarrhœa is a disease of hot weather. Ballard thought that when the 4-feet temperature of the earth reaches 56° F. diarrhœa becomes common. Tomkins of Leicester (Leicester is a "diarrhœa town") shows that the disease becomes common when the 1-foot thermometer stands at 60°. Snow of Buffalo, U.S.A., showed that in 1886-88 diarrhœa mortality was highest when the minimum atmospheric temperature attained its highest average range. The London statistics for 1887 and 1888 collected by Dawson Williams show a similar relationship between diarrhœa and a high average minimum range of temperature. Copeman considers it highly probable that the disease is due to "microphytic processes" going on in the upper layers of the soil. "This would afford an explanation of the fact that summer diarrhœa is especially a disease of cities having a polluted soil."

The bacillus enteritidis sporogenes is believed by Klein to be the cause of infantile diarrhœa.[3] It is an anaërobic bacillus which forms spores and may be easily cultivated in milk. It is fatal to rodents when injected hypodermically and produces a foul-smelling bloody œdema of the cellular tissue and adjacent muscle tissue. The spores were found in 4 out of 10 cases of infantile diarrhœa examined and in 6 out of 8 cases of "cholera nostras." It was found in 8 out of 10 samples of milk purchased in London milk shops between April and the end of June (when diarrhœa was not epidemic?) including samples of so-called "pure sterilised milk." It has been found in large quantities in sewage and in sewage effluents. It is found in horse dung and in all matters polluted with it. It has not been found in pig dung or cow dung or in the dung of a healthy human being.

In face of the wide distribution of the microbe it is evident that the vulnerability of the individual must be an important factor in determining an attack of diarrhœa. If we are to consider diarrhœa as a soil disease it is evident that its cause exists only in the upper layers. It is more common among city streets than in agricultural districts. According to Klein the probable cause is largely to be found in horse dung which is pulverised and blown about generally. That it is a "soil" disease in any true sense is certainly not proven.

[The lecturer at this point discussed dysentery, cholera, and Malta fever as soil disease, and then proceeded as follows:]

PLAGUE.

Plague has been regarded as a soil disease, but recent evidence must materially modify this opinion. Experiments carried out in districts where a disease is epidemic or endemic necessarily acquire a measure of certainty from that fact alone. The unfortunate accident which occurred last year in Vienna, much as one may deplore it, was an object-lesson of the greatest value and converted what many regarded as mere theories into facts which all can read and understand. In the recent epidemics in the East the theory that plague grows "in the soil" has received no support whatever.

In India the two facts which have come to the front are the danger in relation to plague of (*a*) rats, and (*b*) abrasions on the skin; and it may be said that the following are the most important items in the spread of plague:

1. Filthy habits of the people, such as spitting over the floor and others mentioned above.
2. Filthy houses.
3. Overcrowding, and consequent rapid increase of contagious disease when once imported.
4. Presence of rats, insects, and other vermin.
5. The naked condition of the people going about, such people presenting almost unlimited opportunities for the entrance into their tissues of plague poison by inoculation and through abrasions.
6. Pollution of soil and houses with the excretions of man and animals.
7. Filthy clothing and absence of bodily hygiene.

DIPHTHERIA.

Dr. Arthur Newsholme in his work on *Epidemic Diphtheria* (1898) while admitting that personal infection is the chief means by which diphtheria is spread, contends that

> The specific micro-organism of this disease has a double cycle of existence, as have the specific micro-organisms of enteric fever, erysipelas, scarlet fever, rheumatic fever, etc. One phase is passed in the soil, another in the human organism. One is saprophytic, the other parasitic.[4] It is not strange, therefore, that the epidemic prevalence of all the above diseases is favoured by deficient rainfall if this is sufficiently long continued. This deficient rainfall implies a low subsoil water and a subsoil above the level of this water which is relatively dry and warm, probably the optimum conditions of the saprophytic life of the above pathogenic micro-organisms. The causes of the transition of the diphtheria bacillus from the saprophytic to the parasitic phase of life may be surmised both as regards (*a*) season and (*b*) years of special epidemic prevalence. Diphtheria is most prevalent in the autumn and early winter months, when the optimum temperature and the optimum degree of humidity of the soil are rapidly disappearing or have departed. It is also most prevalent after the wet weather occurring in or immediately following exceptionally dry years. Both these conditions tend to raise the ground water and to drive out any pathogenic micro-organisms from the soil.
>
> Dr. Newsholme is of opinion that in order to account for the epidemic and even pandemic waves of diphtheria, "the diphtheria bacillus under certain conditions becomes more actively virulent and infective, more remote from its saprophytic phase of life, and that thus persons who can resist the ingress of the feebler fall victims to the more powerful micro-organism." The latter is probably the correct hypothesis, and the evidence already given clearly points to the conclusion that of the external cultural conditions leading to increased virulence of the diphtheria bacillus, and greater readiness for assuming a parasitic life, exceptional deficiency of rainfall, and consequent exceptional deficiency of moisture in and exceptional warmth of the subsoil form an essential part.

The above is a very ingenious hypothesis, but it is essential to point out that the diphtheria bacillus has not been recovered from the soil, and that the bacilli of rheumatic fever and scarlet fever have not yet been identified. Before Dr. Newsholme's hypothesis can be accepted a great deal more evidence will be necessary.

Dr. Newsholme's figures generally seem to show that diphtheria is now a disease more of the towns than of the rural districts. It is not very easy to understand how, in a city where pavements and other impermeable coverings to the soil are general, the bacillus is driven by the rising subsoil water into the air. Of course, it may be driven out of the sewers and sewer ventilators, in which case it becomes a sewer disease rather than a soil disease. Most of the facts collected by Dr. Newsholme are explained as readily, if not more readily, on the theory that diphtheria is an air disease as upon the theory that it is a soil disease. That diphtheria is a soil disease is certainly not proven.

MALARIA.

A few years ago I should have spoken of "malaria" as undoubtedly caused by something in the soil itself, but the discovery of hæmatozoa in the blood of sufferers from malaria has altered our point of view. The most widely spread poison in the world has become something which is visible and tangible and inoculable. No discovery which has ever been made in the domain of medicine is likely to have such far-reaching effects. Further, it seems certain that the infection of human beings may take place *viâ* the mosquito, and we are now concerned to find out whether this is or is not the only medium through which the blood of man receives the parasite. Some who are well qualified to speak would answer in one way and some in another.

If, however, on the one hand, we are able to show Europeans the importance of protecting themselves against the attacks of insects, we must, on the other, continue to make use of our accumulated knowledge as to the conditions of soil which indirectly cause remittent fevers to be endemic. The conditions of soil which give rise to malaria are too well known to need any lengthy discussion here, but airborne infection or waterborne infection cannot be lightly dismissed.

It is generally conceded that the turning up of virgin soil is one of the most fruitful causes of malignant malarial fevers, and under this heading is included blackwater fever, which has recently become so common. Surgeon Bowden, R.N., D.S.O., informs me that the turning up of fresh soil is often followed by an influx of mosquitos. On the other hand, the cultivation of the soil seems ultimately to lead to the decrease and disappearance of malaria.

After referring to a group which (like malaria) seems to be dependent upon the bites or stings of insects which, affecting animals rather than man, yet throw much light upon the pathology of infection, a group including ngana or tsetse fly disease, the "louping ill," a disease which is common in the North of England and Scotland which has been noticed to be fatal to sheep frequenting certain pastures; Texas fever of cattle, and the South African horse disease, the lecturer concluded as follows: There are other diseases more or less suspected of being soil diseases, but the facts are at present too few to make any discussion of them profitable. These are yellow fever, beri-beri, swine fever (undoubtedly propagated by fouling of the surface soil), cancer (?), thread worms, hydatids, and ankylostoma duodenale.

REFERENCES AND NOTE.

[1] Local Government Board Report, 1897-98. [2] Quarterly Return of the Registrar-General. [3] Twenty-seventh Local Government Report, 1897-98. [4] It is not contended that there is a regular alternation of saprophytic and parasitic generations, but that such alternations do occur.

THE LETTSOMIAN LECTURES

ON

SOME CLINICAL ASPECTS OF GRANULAR KIDNEY.

Delivered before the Medical Society of London.

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LECTURE II.

ALBUMINURIA.

OF albuminuria in granular kidney it is not necessary to say much. We know that it is usually small in amount, and that it is not constantly present. It may be found at special times only or may be absent for irregular periods, and might therefore be described as cyclical or intermittent respectively. It may be absent for long periods—even, it is said, altogether, though this is hard to prove. Its amount may be large—as much as half or more—but this generally depends upon some accidental complication, intercurrent nephritis or failure of the heart.

Given a clear case of granular kidney, these variations in the albuminuria do not cause surprise; but clinically the question often presents itself in a somewhat different form. In a given case albuminuria may be the chief symptom; we have then to decide whether granular kidney is the cause or not. It often happens that the evidence is not conclusive, for the patient appears to be in ordinary conditions of health. We are thus introduced to a problem of very great difficulty—that of so-called physiological or functional albuminuria.

For the present purpose we may regard the causes of albuminuria as falling into two groups, according as they lie in the kidney or outside it. In the latter case it may depend, on the one hand, upon some changes in the tissue or blood before the blood has reached the kidney, and may therefore be called prerenal; and, on the other, the urine may be normal when secreted, the albumen being added to it after secretion; these may be called postrenal. In each of these groups there may be some obvious cause or no cause obvious. Thus, the forms of albuminuria may be arranged into five groups:

Albuminuria	Prerenal	1. Obvious cause—for example, morbus cordis, fevers, etc.	
	Renal	2. No obvious cause.	Physiological.
		3. No evident renal disease.	
		4. Evident renal disease.	
	Postrenal	5. From urinary passages, etc., generative organs, vagina.	Accidental.

Groups 2 and 3 are included under the term physiological albuminuria.

This table draws attention at once to the difficulties which have to be dealt with before the diagnosis of physiological albuminuria can be safely made. The postrenal group is of great importance, for in all cases care must be taken to exclude all accidental contamination, especially such as would result from the presence of cystitis, gonorrhœa, or from the admixture of discharges from the uterus and vagina, or from the prostate and vesiculæ seminales.

Experimentally, albuminuria has been produced in perfectly healthy persons by excessively albuminous diet, by violent muscular exercise, by cold bathing and exposure to cold; but even then it is probably not capable of being produced in every person, or at any rate not with equal ease, so that even in such cases some other factor is necessary.

Again, in an apparently healthy person albumen may be found occasionally present under certain circumstances, as, for instance, on rising in the morning or after food; and the albuminuria has then been called postural, dietetic, cyclical, or intermittent respectively. Intermissions or variations in the occurrence of albuminuria are no evidence that there is no disease of the kidneys, for they are frequently observed in persons recovering from acute nephritis, in whom it is by no means uncommon to find albumen absent, it may be, for the greater part of the day, and present only at certain times; in other words, the kidneys may be affected, and yet albuminuria be only intermittent or cyclical. This is, of course, well known to be the case in granular kidney. Even acute nephritis in slight degree may be very easily overlooked, especially in children, and, when œdema is absent the nephritis may not even be slight, as the presence of blood and epithelial casts show.

Admitting all these exceptions, there remains a group of cases in which albuminuria is present, with apparently nothing whatever in the previous history or the actual condition of the patient to explain it. The choice of a term by which these cases can best be described is difficult. Latent albuminuria is, perhaps, that to which least objection can be raised, but it is often not so much latent as overlooked. Early albuminuria is open to the objection that it might be thought to refer to albuminuria only in the young, which would be incorrect, or that it implied the opinion that it was an early stage of disease, and this again would be begging the question. Albuminuria in the apparently healthy, on the whole, seems to me to have least objection to its use, and to state the facts best.

ALBUMINURIA IN THE APPARENTLY HEALTHY.

The statements made by different observers as to the frequency with which albuminuria occurs in the apparently healthy vary greatly.

Thus, Leube's[1] observations upon presumably healthy young adults, which are so often quoted, yield 30 per cent. Fürbinger's[2] observations upon children yield 10 per cent. Goodhart's[3] observations for all ages on the contrary only 2.6 per cent, while more recent observations upon boys yield more than 22 per cent. Finally, Possner states that albumen may be shown to be present in the urine of everyone.

To consider Possner's statement first. There is no doubt a certain shedding of epithelium in the genito-urinary passages of everyone; if, then, a large quantity of urine be taken, and, after concentration, treated in elaborate ways, it is evident that the albumen will be detected which is derived from the normal epithelium, and which must be present to a greater or less extent in the urine of everyone Whether this be the origin of the albumen or not, so far as Possner's observations go, they amount to no more than this, that by special methods a minute amount of albumen may be detected in everyone's urine. This, however, is not what is meant by the clinical term albuminuria.

Variations so considerable as these in observations made by equally competent observers show that there must be a fallacy somewhere, and it may lie in the fact that different sets of cases have been observed or different tests employed. Looking broadly at the figures given by the different authors, these facts are evident:

1. The majority of observations upon which the statements are based have been made upon children and adolescents.
2. And those almost entirely of the male sex.
3. That the higher percentages have been obtained by including cases in which very minute traces of albumen were found by the most delicate tests.

In respect of age, Heubner[4] states that of the cases published, 77 per cent were in persons under 20 years of age, and 39 per cent in children, and to this I may add that hardly more than 10 per cent. at the most were in persons above 25. In respect of sex, the choice of males has probably been chiefly determined by convenience; at any rate I do not think sex has any influence upon the frequency of albuminuria, although the question has never, I believe, been worked out specifically from this point of view.

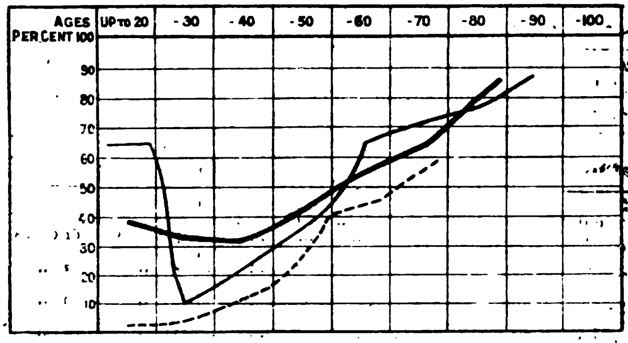

Diagram constructed from the figures given by Stirling (light line) and Levison (thick line). The dotted line shows the frequency of granular kidney in proportion to healthy kidneys derived from Mahomed's figures.

Roughly speaking, the cases thus group themselves into two periods: (1) those before the age of 25, and (2) those after 25. The difference between these two periods is indicated upon the diagram, which shows the remarkable frequency of albuminuria before the age of 25 years, the drop which occurs about that age, and the gradual rise with each age-period after that age. The diagram also indicates that the conclusions which apply to the one age-period cannot, without due allowance, be applied to the other.

There are many forms of albumen, but we need only consider two forms: (1) serum-albumen, which for our purpose will also include serum-globulin; and (2) nucleo-albumen, a mucin-like body, which has been till lately confused with mucin. It is by reckoning nucleo-albumen in with serum-albumen that the high percentages of albuminuria have been obtained.

Serum-albumen and nucleo-albumen both alike are precipitated by heat and acetic acid, by salicyl-sulphonic acid, and by picric acid.

The distinguishing tests are these:

1. Nucleo-albumen gives with acetic acid and dilution a distinct cloud, while albumen gives at most a haze or nothing at all. Acetic acid alone precipitates both albumen and nucleo-albumen, the former less rapidly; but on dilution the nucleo-albumen reaction is not diminished, or may be somewhat increased, while the haze with albumen becomes less distinct in proportion to the dilution.

2. Heller's test gives a distinct line with albumen at the junction of the two fluids. But with nucleo-albumen the ring forms ½ to 1 centimetre above the junction, or, if there is no ring, a haze is produced throughout the solution.

3. A saturated solution of sodium chloride with acetic acid, when heated, gives a faint reaction with nucleo-albumen but a distinct one with serum-albumen.

4. Ferrocyanide of potassium and acetic acid, which is very sensitive to serum-albumen, gives a reaction with nucleo-albumen only if it be present in considerably more than a trace.

5. A saturated syrupy solution of citric acid precipitates nucleo-albumen much more readily than serum-albumen. The ring method, as in Heller's test, is the most satisfactory way of making this test.

Mucus also gives some of the above reactions—for example, with heat and acetic acid, salicylsulphonic acid, and picric acid, as well as acetic acid in the cold, but it is present only in very slight amount. It does not give the ferrocyanide of potassium test if performed in the right way—that is to say, if the urine be added to the ferrocyanide and acetic acid solution, and not, as the test is often made, by adding the ferrocyanide solution to the urine or by adding acetic acid first.

There is no single test upon which reliance can be placed to distinguish absolutely between nucleo-albumen and serum albumen, but these tests systematically used in order will suffice to make the distinction quite clearly in most cases.

Desiring to form my own opinion upon this question, I asked Mr. Levison to undertake some observations for me. He has done the work with very great care, and his paper will shortly be published *in extenso*; for the present I shall only give the more important conclusions:

He examined 336 healthy persons, of whom 108 were young soldiers; the rest were hospital convalescents. The cases were thus grouped:

		Below 25.	Above 25.
Males	254	155	99
Females	82	31	51
Total	336	186	150

A proteid reaction of some kind was obtained in 136, or 40.47 per cent., and of this serum-albumen occurred in 22.02 per cent., and nucleo-albumen in 18.05 per cent. The figures are set forth in the following table:

	Below 25.	Above 25.
Proteid reaction of some kind in 136 cases=40.47 per cent.	75 cases	61 cases
Serum-albumen in 74 cases=22.02 per cent.	42 ,,	32 ,,
Nucleo-albumen in 62 cases=18.44 per cent.... ...	33 ,,	29 ,,
Negative in 200 cases...	112 ,,	88 ,,

Making allowance for the different numbers in the two groups—that is, above 25 and below 25, the percentage was almost exactly the same in each. The amount of albumen in all cases was extremely small, and probably in half the cases would have been overlooked in the ordinary methods of examination. The largest amount in these series was not more than would give a ring of 1 to 2 millimetres in thickness with nitric acid. Nucleo-albumen was found alone in nearly one-half of the cases—18.44 per cent., and this was the same in both the groups—that is, before 25 as well as after 25. It is probable, therefore, that in Leube's results, as in these, one-half were due to nucleo-albumen.

Of the cases in which serum-albumen was present (22 per cent.) in 12 per cent. the amount was quite minute, and only in the remaining 10 per cent., would have been easily recognisable by the ordinary methods.

No clinical difference could be detected between the cases with serum-albumen and those with nucleo-albumen, nor should any be expected if it be true that nucleo-albumen is but a salt of ordinary albumen with chondroitic-sulphuric acid or nucleic acid, which are constituents of normal urine.

The age distribution of the cases examined is shown in the following table:

Age-Period.	Total Number of Cases Examined.	Albumen: Serum-A. Nucleo-A.	Percentage to Cases at each Age-Period.
1— 5 years	2	0	0.00
5—12 ,, ...	18	2	11.10
12—18 ,, ...	37	14	37.80
18—25 ,, ...	129	59	45.70
25—35 ,, ...	47	17	36.10
35—45 ,, ...	32	11	34.40
45—55 ,, ...	37	15	40.50
55—65 ,, ...	22	11	50.00
65—75 ,, ...	11	6	54.10
Above 75 years	1	1	100.00
	336	136	40.37

These observations show that the great frequency of albuminuria in apparently healthy persons is not overstated if all those cases be included in which there is the minutest possible trace evident only on careful examination, but inasmuch as in most of these cases, probably one-half, the trace is so small that it can only be detected with great care when specially looked for, the contrast between these results and the general impression obtained from ordinary clinical experience is not so great as at first sight it appears to be.

It is also evident, as I have already stated, that the conclusions drawn as to the frequency of albuminuria in one age-period must not be applied without due allowance to any other age-period, and that speaking generally the significance is entirely different before 25 and after 25. What is required is a systematic series of observations in which the same carefully-selected tests have been employed, and a sufficient number of cases of the one sex and of the other examined at the different age-periods.

1. In infants up to the age of 5.
2. In young children from 5 to 10.
3. In boys or girls from 10 to 18, that is, the school age.
4. In young adolescents, 18 to 25.
5. In young adults, 25 to 35.
6. In the middle period of life, that is, from 35 to 50.
7. In the later periods of life, over 50.

1. *Infancy and Early Childhood.*—Of albuminuria in infancy and early childhood we have not much information. In newborn infants albuminuria is stated to be common, but that need not be matter of surprise. In babies up to a few months old, Holt quotes Cruse as having found albuminuria in 28 out of 90 cases (31.1 per cent.).

2. *From Infancy up to the Age of 10.*—Albuminuria is said to be less frequent up to the age of 10. Ward[5] examined 120 cases between the ages of 5 and 12 years, but his results bear this statement out fairly well, for he obtained a reaction with heat and acetic acid in 29 (24.16 per cent.), but the amount was always minute and sometimes the merest trace. In only 9 cases (that is, 7.5 per cent.) was the amount appreciable.

3. *10 to 18 Years—that is, Children during School Age.*—At this period statistics abound and show the extraordinary frequency of albuminuria. The following are some of the figures:

Stirling ...	... 369	boys	... 20.8	per cent.
Ribbert ...	... 240	,, ...	... 22.0	,,
		summer (104 cases)	... 29.8	,,
		winter (136 ,,)	... 16.0	,,
Dukes		many years' experience	22.0	,, at least.
Grainger Stewart ...	100	,, ...	... 17.0	,,

Stirling's table shows a gradual increase in frequency from the age of 12 to 15 or 16.

Age	12	13	14	15	16
Number of cases... ...	20	59	88	147	55
Percentage...	5.0	10.2	16.0	29.4	23.6

Although the amount of albumen is usually small it may be considerable.

Thus in a specimen which was kindly sent me recently for examination by Dr. Clement Dukes the amount of albumen was as much as 2 per cent.—that is, 20 grams in the litre. This was in the morning urine. In the evening, after a day's rest in bed, the albumen was not more than a trace, and this chiefly nucleo-albumen. In a third sample, after the boy had got up again, the amount of albumen was nearly as large as before—namely, 1.4 per cent., and about ⅛=0.18, was serum-globulin and nucleo-albumen. This specimen was centrifugalised, and showed a few granular and epithelial casts and some epithelial cells.

It has been suggested that the presence of albuminuria at these ages is due to the active development of the sexual organs, and probably also to the presence in the urine of discharges derived from these organs, and that the form of albumen is generally nucleo-albumen. The albumen is, however, generally serum-albumen and not nucleo-albumen and there is no proof that nucleo-albumen is derived from the urinary passages and not from the kidney. Nor is there any proof that masturbation is a predisposing cause; indeed, what evidence there is, is against it.

4. *18 to 25 Years, Adolescents.*—It is upon cases of this period that most of the statements as to physiological albuminuria in adults are based.

Most of the observations have been made upon young soldiers:

Leube	119	young soldiers	...	20.4 per cent.
Grainger Stewart	205	,, ,,	...	27.6 ,,
Tieman... ...	186	,, ,,	...	27.4 ,,
Zechuisen ...	144	,, ,,	...	14.6 ,,
Levison ...	108	,, ,,	...	47.25 ,,

The 108 young soldiers which Levison examined ranged from 17 to 27 years of age, but of these only 8 were above 25.

A proteid reaction of some kind was found in 51 cases = 47.25 per cent.

This was due to serum-albumen in 30 cases = 27.75 per cent.

This was due to nucleo-albumen in 21 cases = 19.50 per cent.

In all the nucleo-albumen group and half the serum-albumen group the quantity present was very minute = 33.4 per cent., that is, in only 14 per cent. was the quantity certain to have been detected by ordinary testing.

In 3 of the latter cases in which a moderate amount of albumen was found, careful microscopical examination was made after centrifugalising, and nothing discovered except a few epithelial cells.

The effect of exercise is well shown thus:

In 29 Cases after Drill.	In 79 Cases without Drill.	24 New Recruits who had not been Drilled.
Proteid of some kind in 18 cases = 62.3 per cent.	In 33 cases = 41.7 per cent.	5 cases = 20.75
Serum-albumen in 10 cases = 34.48 per cent.	In 20 cases = 25.31 per cent.	3 cases = 12.54
Nucleo-albumen in 8 cases = 27.82 per cent.	In 13 cases = 16.45 per cent.	2 cases = 8.25

Thus morning drill considerably increased the total frequency of albuminuria, but made no difference in the relative frequency of the two kinds of albumen.

5. *25 to 30 Years.*—For this period there are very few published statistics. By the kindness of friends I have been enabled to obtain the experience of some life offices relative to the occurrence of albuminuria in applicants for insurance presumably healthy below the age of 30 years. At the Provident Clerks Life Assurance Association, I find that in the course of the five years 1893 to 1898, 7,950 policies came before the office, and 4,488, that is to say, a good deal more than half, were persons under 30 years of age; out of this number, 25 cases were found to have albumen in the urine. This was a percentage well under 1, actually of 0.55; of this number no fewer than 18, that is, two-thirds, were under the age of 25. At another office, for the period of ten years, the number of applicants below 30 years of age was, roughly speaking, about 750, and out of these 7 only were deferred or rejected on the ground of albuminuria; this gives a percentage of nearly 1.

No doubt more precise examination would have raised this percentage somewhat; still I think the facts are sufficient to show that at this age-period albuminuria is much less common than in any precedent period, and that it probably stands at its lowest point in life.

6. *Above 30 Years.*—There are a great many figures to show the general frequency of albuminuria for all ages during the insurance period, but they tell us little of what we really want to know—namely, the relative prevalence of albuminuria at the different age-periods throughout adult life.

Thus	Washbourn,	for 1,000 cases,	found	3.5	per cent.
,,	Munn	,, 1,000	,,	11.0	,,
,,	Tieman	,, 2,000	,,	9.0	,,
,,	Anonymous	,, 6,400	,,	7.1	,,

To these we may add as derived from general sources:

Grainger Stewart,	100 adults ...	... 10.0	per cent.
Goodhart,	1,600 out-patients	... 2.6	,,

With these we may compare Levison's figures, which yield a much higher average percentage, equal to 40 per cent. Petersen's results give the key to the difference in the percentages obtained. He examined 1,000 soldiers and recruits by Heller's test only, and found albumen present in the morning urine, on rising, in 3.79 per cent.; at 11 A.M., after three hours' drill, 15.11 per cent.; at 6 P.M., after two hours' drill, 9.02 per cent. The difference in results is evidently due to the different tests employed.

It would greatly simplify matters if we could agree upon a standard test, and the best, in my opinion, would be Heller's. It is sufficiently delicate, for it will show 1 part in 10,000 at once, and 1 part in 35,000 in 4 minutes. An amount of albumen which cannot be shown by Heller's test may, *quâ* albumen, be disregarded clinically.

THE SIGNIFICANCE OF LATENT ALBUMINURIA.

Latent albuminuria, that is, in the apparently healthy, apart from its scientific interest, has a practical bearing—in boyhood as affecting the school career, in young men as affecting the chance of appointments, and in adult life as affecting insurance.

In considering the significance of albuminuria, it will be well to retain the division into two groups, before and after 25, as we have hitherto done.

1. *Significance in Boys and Adolescents.*—Albuminuria is common during the period of growth and immaturity, and becomes less frequent when development is approaching completion. The question arises whether we can connect these two facts together. Assuming that during the period of growth all the tissues of the body are in a condition of instability and immaturity, it is easy to suppose that very slight causes might disturb their balance, and thus in the case of the kidneys albumen might appear in the urine as the result of causes which would have no effect upon the fully-developed or adult organism or organ.

What the clinical significance of this albuminuria in childhood and adolescence is can only be determined by clinical observation, by carefully investigating the cases at the time, and watching them over a long period. The boys in whom albuminuria is found appear to fall into at least two groups. In one the child appears to be robust and healthy, has a rigid artery and a high tension. These are the cases which Clement Dukes has recorded as met with so frequently in schoolboys. In the other the children are not robust and healthy, but feeble and pale, and in them the tension is low and the artery not thickened. These two groups probably indicate not only different conditions but a different prognosis. In no case is the albuminuria strictly speaking physiological; it is always pathological, though not necessarily renal.

What we require to know is the course which these cases run in after-life.

If albuminuria is so common in youth and adolescence, and becomes so much less frequent in early adult life, it follows that many of the cases have no very serious significance—in other words, that they get well. This, indeed, we also know from direct observation. Yet with those who have most experience there is evidently still some lurking doubt about the ultimate result in not a few instances.

Granting that many, perhaps the majority, ultimately recover, there remains another group in which the patients continue to pass albumen for many years and yet remain in good health, and a third in which signs of renal disease ultimately develop.

Johnson[6] described a case in which recovery took place after seven years of persistent albuminuria, and other cases in which the albuminuria persisted for ten, fifteen, or even twenty years, without other evidence of disease appearing. Saundby[7] records the case of a man rejected for insurance on account of albuminuria who was in good health eighteen years afterwards.

Yet, as will be shown later, maintenance of health for many years is not incompatible with damaged kidneys and premature death. Making all allowance for exceptional cases such as these, the significance of albuminuria in early life must for the present still remain doubtful.

Clement Dukes says in one of his last writings on the subject: Familiarity with the disease has not bred the proverbial contempt, for I am convinced that a number of these cases never recover. In many, indeed the majority, the albuminuria is transient and never recurs; in others it becomes persistent from a frequent repetition of transient attacks, from neglect or imprudence, or from failure of accurate diagnosis, and eventually results in chronic disease of the kidney.

Holt says: All these cases must be carefully watched for a long time, and many observations made before nephritis can be positively excluded. If albumen is constantly and persistently present it is probably pathological, and the longer it continues the more serious the outlook.

Significance in Adult Life.—This is important in relation to life insurance. Before 25 many cases may be curable; after 25 the chances of renal disease increase rapidly. Conclusions drawn from cases under 25 cannot be applied without consideration to cases over 25. The diagram already given shows, first, the frequency of albuminuria at the different age-periods after 25, and, secondly, the frequency of granular kidney after 25.

There is a great difference of opinion professionally as to the significance and importance of the traces of albuminuria met with in otherwise apparently healthy persons applying for insurance, and I think there is also much difference in practice. It would be important therefore to trace these cases in order to ascertain what became of them in after-life. In some instances this has been done.

Thus, in Washbourn's series, out of 1,070 cases, 38 had albuminuria—that is to say, 3.55 per cent. Of these 38 cases, 18 were traced; 14 more of these cases were known to be living, but the condition of the urine was unknown, and 6 were lost sight of. Of the 18 cases traced, 6 were stated to have recovered; 6 died of renal disease; 5 others had albumen still some years after; and 1 died of phthisis. Thus, out of 18 cases, 6 had renal disease for certain and 5 more probably, giving a percentage of not less than 33, and possibly of 60. Washbourn calculated that the mortality-rate among these cases for the age was 17.54 per cent.—that is to say, was nearly double the normal average.

Munn found that, out of 25 cases, 1 died within the year following the examination, and 4 more died during the subsequent three years, while in all the rest the health had obviously deteriorated.

Rabagliati's results bear, perhaps, only indirectly upon the question we are discussing. He showed in connection with the Scottish Widows Fund that, of 3,246 deaths, 255 were referred to urinary diseases—that is, 7.8 per cent.—and of these, 4.3 per cent. were due to diseases of the kidneys and nephritis. During the same period in Bradford the general mortality from urinary diseases of males above 15 yielded the rate of 3.4 per cent. Thus, the insured lives had a mortality-rate for kidney disease much above the normal. He further states that the average age of albuminuria at death was 57.

We may thus conclude that, in spite of all ordinary care and consideration, a considerable number of renal cases slip through the medical examination; and hence the importance of not minimising the evidence, even when it is slight, if any early renal mischief is apparent.

From another office I have a very valuable report, to the author of which I should like to acknowledge my indebtedness, but I am prevented by the condition upon which the information is furnished me, so that, while I can vouch for the figures, the report must remain anonymous:

In a series of 6,400 adults examined between the years 1877 and 1893, 454 cases of albuminuria were found. Of 137 cases among these in which the urine was examined microscopically, casts were found in 31—that is, in about 25 per cent. Thus, in round numbers, albumen occurred in about 7 per cent. of all apparently healthy adults; the probability of finding casts in the urine associated with albumen was about 1 in 4. Some of these cases have been traced in after life, and the following figures have been furnished me.

ALBUMINURIA IN ADULTS APPARENTLY HEALTHY.

Very few were examined microscopically. The specific gravity ranged from 1034 down. Personal and family history and build were good as a rule, but some cases have been admitted in which one or more of these factors have been under the average.

TABLE I.

	Ages between 20 and 39 (A).		Ages 40 and over (B).	
	Living at End of.	Died During.	Living at End of.	Died During.
1st year ...	194	2	120	4
2nd " ...	193	1	115	5
3rd " ...	188	5	113	2
4th " ...	187	1	109	4
5th " ...	181	5	106	3
6th " ...	174	7	101	5
7th " ...	166	5	89	12
8th " ...	147	6	78	2
9th " ...	99	2	53	3
10th " ...	44	—	27	2
11th " ...	22	1	13	2
12th " ...	16	1	10	—
13th " ...	11	—	5	—
14th " ...	8	—	3	—
15th " ...	5	—	1	—
16th " ...	2	—	—	—

Among these cases 49 were stated to have had casts.

TABLE II.

	Ages between 20 and 39 (A).		Ages 40 and over (B).	
	Living at End of.	Died During.	Living at End of.	Died During.
1st year ...	25	—	22	2
2nd " ...	25	—	20	2
3rd " ...	24	1	18	2
4th " ...	24	—	18	—
5th " ...	22	2	18	—
6th " ...	21	1	16	2
7th " ...	20	1	13	3
8th " ...	20	—	12	1
9th " ...	17	1	10	1
10th " ...	12	—	5	1
11th " ...	5	1	4	—
12th " ...	2	1	3	—
13th " ...	2	—	3	—
14th " ...	2	—	—	—
15th " ...	1	—	—	—
16th " ...	1	—	—	—
17th " ...	1	—	—	—

TABLE I.—For the first eight years or so nearly all the cases were traced, and the record is remarkably complete; after this many apparently were lost sight of. During those eight years the total mortality in Group A, that is, in cases under 40, was 17 per cent., and in Group B 30 per cent., a very considerable death-rate for presumably healthy lives. Evidently, therefore, the albuminuria largely increased the risk. But the table also shows that some of the cases lived a long time. Thus, in Group A, at least 44 persons, that is, 22 per cent., were known to have lived 10 years, and probably several others were alive who had been lost sight of. Sixteen were known to be alive after 12 years, 8 after 14, and 2 at least lived more than 16 years. Similar facts are shown in Group B.

TABLE II. In this class, taking 8 years also, the mortality was higher—namely, 20 per cent. in Group A and 50 per cent. in Group B. Still, here again some individuals were known to have survived for many years.

The following table has been, with great kindness, calculated for me by an actuary-friend, to show approximately, as far as the figures permit, the difference in mortality compared with healthy males, and to make the results more obvious they have been taken for difference of two years in age:

Ages Attained.*	Rate of Following Year.		Ages Attained.	Rate of Following Year.	
	A	B		A	B
30	—	—	50½	3.70	1.97
32	1.56	1.06	52½	2.64	2.20
34	3.27	1.11	54½	3.74	2.43
36	3.33	1. 6	56½	7.13	2.69

* Starting with average of those given, and assuming uniform increase for eight years.

Without laying any stress upon the actual figures these calculations show how largely the presence of albuminuria raises the mortality, as well in those below 40 as in those above. We must conclude, therefore, that for the ages at which life insurances are generally effected, that is, from 25 years upwards, the presence of even a trace of albumen in the urine is of considerable significance. It is more and more likely to mean disease as age advances, and therefore the risk to the office continually increases. Even at the earlier periods—from 25 to 35—it is a question whether these lives should be accepted even with a considerable addition, owing to the difficulty of excluding the commencement of granular kidney.

Rabagliati threw his conclusions into the following form: (1) over 40, reject; (2) under 40, load heavily; (3) in young adults, rate up moderately. With the first recommendation I entirely concur. The second is necessary, but the loading might be prohibitive and tantamount to rejection for any age over 30. In respect of the third, between 25 and 30 there would have to be a fairly heavy loading, but between 18 and 25 many cases could be safely accepted without any great risk. Each case of this kind, however, must be considered on its merits. Albuminuria is not the only fact to be considered, suspicious as it may be; and just as a diagnosis should not be made on a single physical sign, neither should a life be rejected on a single physical sign. At each age there may be innocent and harmful albuminuria, and it is the business of the physician to distinguish, if possible, between them.

I do not know any class of case which presents greater difficulties to the medical adviser to the life office, or affords greater scope for good judgment and skill; so that while rightly appraising the risk to the office on the one hand, he should at the same time advise what is fair and just to the proposer.

CONCLUSIONS.

The general conclusions to which these considerations lead are these: that the so-called physiological albuminuria is always pathological, even if not always renal, when the amount of albumen is more than the merest trace, and probably pathological, even in these cases when there is but a trace, and no cause obvious. In this respect it is interesting to recall the experience of Eales, who, out of 14 cases sent him as instances of physiological albuminuria, found no fewer than 5 with marked albuminuric retinitis, showing that what he had to do with was not even physiological albuminuria at all, but well advanced granular kidney.

It is clear, therefore, that in every case the patient must be carefully examined, every possible cause of albuminuria searched for, and every other condition in the patient noted. If nothing else be found and the albuminuria exist alone, it may possibly be harmless or accidental, and of no serious significance. If renal derivatives are found as well as albumen, it must be almost necessarily due to renal disease, and this is in all probability also the case even if no renal derivatives are found in patients in whom the arteries are thickened and the pulse-tension high.

ALBUMINURIC RETINITIS.

Albuminuric retinitis brings me to another group of signs—those of the later stage. In its early stage and typical form albuminuric retinitis is characteristic and pathognomonic—that is, occurs in no other condition except that of chronic renal disease. In the later stage, and especially in the inflammatory form, it may closely resemble the optic neuritis met with in some brain affections—for example, cerebral tumour, but in such cases its importance is not so great, for the diagnosis is generally clear on other grounds.

The question arises whether albuminuric retinitis occurs in any other form of chronic renal disease than granular kidney. In amyloid disease I know of no instance recorded, and I have seen none myself, but amyloid disease is rare nowadays, so that experience of it is small. In acute parenchymatous nephritis it is, I believe, never seen, but it is stated to occur occasionally in chronic parenchymatous nephritis. I have already drawn attention to the fact that the kidneys may be granular before the acute nephritis commenced, so that in any case of chronic parenchymatous nephritis in which albuminuric retinitis developed, it would be necessary to prove the kidneys sound prior to the acute attack.

The cases of McPherson and Blakeborough, to which I referred in my first lecture, are the only two cases of the kind which I have actually observed myself. In both these cases there was interstitial fibrosis in the kidneys, which in McPherson's case was patchy, and in Blakeborough's general and extreme. In both cases the albuminuric retinitis did not develop until after several months' illness, and in the latter case the arteries were observed to be somewhat thickened from the first. The nature of the retinal change in both cases was the same—namely, small white patches symmetrically placed in both eyes.

The lesions of albuminuric retinitis consist in (1) white patches, (2) hæmorrhages, (3) exudations, and (4) inflammatory conditions. They generally develop in the order in which I have placed them. Of these changes, the earliest and most characteristic are the white patches, which are generally found in the region of the macula or yellow spot. They are white and glistening, like fish scales. They are spots of degeneration in which the nerve cells and fibres have undergone fatty change and disintegration, to which in later stages some exudation from the blood vessels, both of cells and serum, may be added. In their typical and favourite form they are arranged in a radiating fashion round the yellow spot, like spokes in a wheel. Then they are usually found in both eyes and are remarkably symmetrical in position. In very early stages they may be so minute as to be easily overlooked, and may be found here and there only, generally between the disc and yellow spot; even then it is remarkable that they are usually present in both eyes, and often symmetrical, though of course in this early stage they are more likely to be unilateral and unsymmetrical. The white patches may for a long time be the only lesion visible, if we disregard for the present certain changes in the vessels, which are probably still earlier and will be referred to later.

Hæmorrhages.—These generally occur at a later period. They are minute and flame-shaped if seated in the upper layers of the retina, but, if in the deeper layers, are larger and less regular; sometimes they are also numerous round about the yellow spot, but at other times are scattered widely over the fundus; when they are of considerable size they naturally interfere seriously with vision. There is nothing characteristic about them, for similar hæmorrhages may be seen in grave anæmia and in optic neuritis of other origin. They may in time be absorbed, sometimes without leaving any trace behind.

The white patches, it is stated, may also disappear. This, however, can hardly occur except where the renal disease upon which they depend is itself curable—that is to say, in those exceptional cases in which they develop in the course of chronic parenchymatous nephritis. I have never observed true white patches disappear myself, but the fact is recorded on good authority.

The explanation of this difference of opinion lies, I think, in the fact that there are two kinds of white patches, which ought to be, but generally are not, distinguished—the one white, glistening, flat, and due to degenerative changes; the other usually not white and glistening, but grey, woolly, raised above the surface, and due to œdema or effusion. The latter no doubt may disappear in granular kidney as in any other form of retinitis.

When exudations occur the appearances present a close resemblance to other forms of optic neuritis, thus the vessels may be covered with effusion and the discs be swollen, the edges indistinct and frayed out; yet even in the most extreme cases there is generally something in the appearance of the fundus to suggest the cause of the trouble.

I have recorded two cases in which the resemblance to cerebral tumour was so close that the diagnosis was not made with confidence till the patient had been under close observation. In both cases the symptoms were violent headache, vomiting, giddiness, loss of sight, and double optic neuritis.

Early as the white patches are they are preceded by and result from still earlier changes in the vessels. The lesions in the vessels have been carefully studied by Brailey and Edmunds,[8] and are briefly described by them as obliterative arteritis leading to inflammatory degeneration of the structures supplied.

> The small arteries and even the capillaries are thickened, degenerate, and rigid. In the arteries the earliest change appears to be a general thickening and hypernucleation of all the coats of the artery without any diminution of their calibre. Gradually the arteries become still more thickened and structureless, and the capillaries hyaline and rigid. Later still the arteries show very great thickening of all the coats, especially the subendothelial part of the intima; this leads to an increased total diameter of the vessel, though the lumen is greatly diminished or may even be completely obliterated. In the most advanced stages some of the arteries may be found in a state of fibroid or structureless degeneration, and similar change may affect many of the capillaries. The changes are exactly the same as those found in the renal vessels. All the vessels in the retina are affected, but not every vessel nor even all parts of the same vessel to the same extent.

The ophthalmoscopic appearances connected with these changes have been admirably described by Marcus Gunn.[9]

> The arteries look narrower than usual. They are somewhat irregular in breadth in different parts, sometimes presenting fusiform enlargements, and in others a long tubular enlargement followed by a constriction; they are often tortuous: they present frequently a wide bright central streak, sometimes running uniformly for some distance along it, at other times patchy or dotty. This is especially seen in the secondary branches of the central artery, that is to say, at some little distance from the discs. It is present in some branches only and not over the whole vessel. The whole vessel shows a broader reflex than normal, and gives the impression of unusual fulness and roundness of contour. The vessel loses its translucency, so that the veins below are not visible through it, or, on the other hand, if the vein lie above, the artery may show through the vein with unusual distinctness. Where a vein lies below an artery it loses its central streak, showing that it is somewhat pressed upon, and may be distended peripherally. The whole retina is usually grey and hazy, which Gunn explains on the assumption of there being a small amount of œdema, especially near the macula, and in the area of distribution of the most diseased vessels. The hæmorrhages are frequently due to rupture of the distended veins, but the arteries, of course, often rupture, too, in the eye as in other parts of the body.

> The ophthalmoscopic appearances Gunn thus connects with the changes in the vessels; narrowness and irregular size of the vessels is explained by the thickening and by the diminished lumen; the tortuosity by the increased rigidity and loss of elasticity; the increased light reflex and the bright central streak by the fibro-hyaline change; the distension of the veins by the great thickening and resistance of the artery as it lies upon them. The difficulty of circulation leads to the general œdema: the progressive disease of the vessel to hæmorrhage; the defective nutrition of the nerve cells and fibres to the white patches. The radiating arrangement of the white patches round the yellow spot he refers to the radiating folds into which the retina in that region is thrown when œdema occurs there. The changes described, Gunn states, begin to be seen usually between the ages of 40 and 50, but they are not due to old age, that is, to atheroma, for this does not produce them, but they may occur much earlier in life than this.

The changes of which Gunn gives so good a description are really the early changes of granular kidney, as his cases prove, for of the 14 cases upon which the paper is based 9 were certainly cases of granular kidney and 3 more probably, while in the remaining 2 only is the diagnosis indefinite.

The dependence of these changes on granular kidney is confirmed by a collateral series of observations which Gunn made. He chose 17 cases of hemiplegia presumably due to vascular disease, for the purpose of comparing with those in his paper; 7 showed characteristic retinal changes such as he had described, and 4 of these had albumen in the urine; 3 more had slight vascular changes in the eye, and 1 of these had albumen; 7 had no changes in the eye at all, but 1 of these also had albumen. Of these last 7, 4 died, and *post-mortem* examinations were made. In 3 of them well-marked granular kidneys were found, and in the other the kidneys were not granular, but as there is no record of any microscopical examination, the absence of interstitial nephritis is not proved.

The papers of Brailey and Edmunds, on the one hand, and of Gunn on the other, are complementary, and together establish the fact that the changes in the eye which we know as albuminuric retinitis depend certainly on the disease of the vessels, and that at the time these changes become evident, the kidneys are already granular. Unfortunately, they give us no help in determining whether the vascular changes or the renal changes are the primary. On the whole, they seem to show that the vascular changes are late, considering how delicate the retina is, and how early the changes in the vessels could be detected by the ophthalmoscope if they were present. Gunn's paper will attract attention to the changes in the vessels which precede albuminuric retinitis, and possibly these changes in the vessels will be found at a much earlier period in the disease than is now supposed.

It is obvious that the degenerative changes described, though generally bilateral and more or less symmetrical, might be unilateral, so that a high degree of albuminuric retinitis might be found in one eye, while the other remained perfectly normal, or nearly so.

Several cases of well-marked unilateral albuminuric retinitis have been recorded, and I have recently published two instances myself,[10] but cases of the kind are certainly rare. The most remarkable instance is that recorded by Anderson, in which no change took place in the other eye for four years and a quarter.

The vascular changes of granular kidney are of great importance in relation to various hæmorrhagic affections of the eye. Thus Gunn connects hæmorrhagic retinitis with granular kidney. Brailey and Edmunds found the retinal arteries extensively diseased in 16 out of 17 eyes excised for hæmorrhagic glaucoma. Gunn suggests that many cases of so-called embolism of the central artery of the retina are really due to thrombosis in an artery so diseased, and that thrombosis here may give rise to neurotic disturbance similar to that met with in retrobulbar neuritis, which some of the extreme forms of albuminuric retinitis closely resemble. Similar conditions might be produced by hæmorrhage into the sheath of the optic nerve, of which some instances are recorded.

Free hæmorrhage occasionally occurs behind the eyeball in the orbital chamber. Then sudden pain is felt behind the eye, which is thrust considerably forward. The hæmorrhage may soon extend forwards and become visible beneath the conjunctiva, or, if not, in a day or two the characteristic staining appears in the eyelids or beneath the conjunctiva. In most cases there is no defect of vision, and recovery is complete.

Spontaneous hæmorrhage under the conjunctiva is not at all uncommon, just as occurs in aged people as the result of atheroma. In younger persons such hæmorrhage is very significant. Similar hæmorrhage into the eyelids, especially the upper, is also sometimes seen.

Knies[11] describes one result of hæmorrhage which I mention, but cannot endorse—namely, paralysis of the ocular muscles, the consequence of hæmorrhage either into the nerve trunks or into their nuclei. The cases, he states, recover with or without treatment, but are subject to relapses.

Thus he describes abducens paralysis in a case of albuminuria of fifteen years' standing; this relapsed twice, and the patient died. In another case, diagnosed as granular kidney, paralysis of the left trochlear nerve occurred, and when, six months later, the patient died, hæmorrhage was also found in the optic nerve. In a third case there was complete right ophthalmoplegia externa with albuminuria. At first the trochlearis was affected, then the internal rectus, finally the other branches of the third, and later there was a unilateral and subsequently bilateral ptosis. All these symptoms ultimately disappeared, and the patient recovered.

The obvious objection to all these cases is that third-nerve paralysis generally develops more or less gradually, whereas, if it were due to hæmorrhage, its onset ought to be abrupt. I cannot recall a case of the kind in which the onset of ocular paralysis was as sudden as the theory of hæmorrhage would require, and I do not think that such unusual cases could have been overlooked.

Detached retina, a not altogether rare phenomenon in granular kidney, is in most cases due to an effusion of serum beneath the retina, and not, as might be expected, of blood. I have seen hæmorrhagic detachment of the retina, but it is a rare affection. The detachment is usually peripheric—that is to say, occurs at the outer part of the retina, and in very many cases affects both eyes, and is remarkably symmetrical. I suppose, if the hæmorrhage is very profuse, it might burst the retina and fill the eye, as happened—unless it was due to rupture of one of the ciliary arteries—I believe, in the case of the woman, now aged 58, to whom I shall refer again as under observation with well-marked albuminuric retinitis for four years. When last seen, the right eye was found completely filled with blood, right up to the posterior surface of the lens. The sight had been entirely lost for some time previously, but the hæmorrhage had apparently occurred a month prior to her last visit, when she was seized suddenly with severe pain in the eye.

Cataract is rare in granular kidney, but Gunn suggests that it might be the result of the sclerotic changes in the vessels. Knies records two instances of iritis. I cannot remember to have seen any instance of either affection, and I should regard their association with granular kidney as accidental.

Symptoms.—The early lesions of albuminuric retinitis produce no defects of vision, and even in the later stages it is very remarkable how extreme the eye-changes may be without a complaint being made of impairment of sight. Routine examination with the ophthalmoscope will often discover albuminuric retinitis when it is not expected, and will make a diagnosis clear which may till then have been obscure. Indeed, the recent progress in our knowledge of granular kidney has been large and coincident with the systematic use of the ophthalmoscope in medicine. As a rule, we may say that when patients complain of defect of vision, the albuminuric retinitis is already very far advanced. When the vision once begins to fail it fails rapidly, so that in two or three weeks it may be completely lost.

In albuminuric retinitis, as in optic neuritis, transient attacks of great impairment of sight or even of complete blindness occasionally occur, lasting, it may be, but a few minutes at a time, the sight in the intervals being good and equal to the finest work—they would be called attacks of amblyopia. They may recur during weeks or even months, but, as a rule, vision soon begins to fail, and then is quickly lost.

Amblyopia is often said to be a common symptom of uræmia, and is usually regarded as either of peripheral origin in the retina or central in the brain or special ganglia. Most of these statements date from a time when the ophthalmoscope was not systematically used. Of toxic retinal amblyopia we know little or nothing, for most of the cases are associated with very definite lesions in the retina, visible with the ophthalmoscope. The amblyopia of central origin, that is, non-retinal, is often associated with other symptoms—for example, hemiplegia. In such cases the amblyopia is also due to lesions of an organic kind. It is not rare, when a patient dies of uræmia, to find the symptoms, which appeared to be merely toxic or functional, explained by organic lesions in the brain, namely, small hæmorrhages. In cases of amblyopia, in which the defect of sight persists after the uræmic attack is past we must presume there has been an organic lesion. In cases of toxic amblyopia recovery ought to take place in the course of a few hours or less, though instances are recorded in which recovery has been sudden and complete even after four days.

Some clue as to the place of origin of the amblyopia may be given by the condition of the pupil. If the pupil reaction be retained and normal, the lesion, if there be one, must be high up or cortical. If the reaction to light be lost, there is probably some affection of the optic nerve or optic ganglia. In some cases described by Lytton in which absence of the pupil reaction to light occurred, each attack was associated with pronounced swelling of the discs, so that there was probably some hæmorrhage or lesion in the optic nerve. Toxic amblyopia no doubt occurs, but it is rare; it may even be unilateral, as uræmic fits may be; yet lesions are found much more frequently than used to be thought likely.

It would be an interesting question to ascertain in what proportion of the cases of granular kidney albuminuric retinitis occurs; but that is impossible, for we have not yet the figures upon which a conclusion could be based. I should say that in most cases of granular kidney, if life lasts long enough, albuminuric retinitis does ultimately develop, but a large number of patients with granular kidney die from other causes, for example, from hæmorrhage in the brain, and so may not reach the stage in which albuminuric retinitis is found.

A certain number of figures from different authors are quoted in Eales's paper, but they are evidently of little value, for they vary from 6 per cent, to 33 per cent.

Albuminuric retinitis is said sometimes to recover. On this point, I think, some caution must be exercised. Hæmorrhage of course may be absorbed and disappear, whether due to granular kidney or not, but I have never seen the white patches of granular kidney disappear, though instances are recorded by good observers. It is of course possible where eye changes occur in the course of chronic parenchymatous nephritis, that if the primary disease get well, the eye changes also should disappear, but this is not so in granular kidney. The cases that are usually quoted are those which occur in pregnancy.

The significance of albuminuric retinitis is always grave, not only in respect of sight, but also of life. It is not possible to determine accurately the duration of albuminuric retinitis, or of life after its appearance, for albuminuric retinitis is not as a rule discovered in its early stages, either because the patients do not come under observation early enough, or because the eye is not examined with the ophthalmoscope until defects of vision are complained of. Speaking generally, the duration of life after albuminuric retinitis has been discovered is short.

Thus Miley[12] traced 45 cases, and found the average duration of life to be under four months from the time when the eye changes were first observed, and, though one of the patients lived eighteen months and two fourteen months, all the rest died within the year.

In 9 cases in which the first appearance of eye changes was noticed, the duration averaged less than six months, and in 2 cases it took a month for white patches to develop after the appearance of hæmorrhages.

Bull,[13] in 100 cases of albuminuric retinitis, found that 86 out of 103 died, 57 in the first year, 12 during the second, and 17 after a longer period. Of the 17 remaining cases that were still living at the time his paper was published, 14 had been seen only during the six months immediately before the paper was written, but 1 had been diagnosed seven years previously.

Where the patients are in a condition to take the best care of themselves, life may be prolonged for some time; thus the Baroness Possauer, in some observations at Zurich, found that within two years of the time of observation; among hospital patients all the men died, and 68 per cent. of the women; among private patients, of the men 59 per cent. only died, and of the women 53 per cent.

Instances, however, are recorded of considerable duration. Thus I have a patient of my own who has been under observation now for more than four years, and, except for a large hæmorrhage into the blind eye, she is still in much the same general condition as she was when she was first seen, and I have already referred to a case of Miley's in which the patient was known to have lived for more than seven years.

Anderson records some remarkable cases. One died twelve years after the albuminuric retinitis had been detected, and 2 others were living four and seven years afterwards respectively.

Cases such as these are quite exceptional, and, speaking generally, when patients are found to have albuminuric retinitis they have not many months to live.

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A CASE OF INVERSION OF UTERUS BY A FIBROID: ENUCLEATION OF FIBROID AND REPOSITION OF UTERUS.

BY
G. ERNEST HERMAN, M.B., F.R.C.P., and LESLIE DURNO, M.D.

A PATIENT, single, aged 45, had been quite well, excepting the results of accidents, up to the age of 39. Then she began to have excessive bleeding when she menstruated, with severe pain and often diarrhœa and sickness. Dr. Durno was sent for two years and a-half ago, and found that the uterus was enlarged to the size of one four months pregnant. It gradually increased in size till it reached considerably above the umbilicus. The patient had two attacks of hemiplegia, from which she recovered. She had much pain and tenderness in the left side, and there was at times œdema of the left leg. About six months ago the patient began to have an offensive discharge, and the abdominal swelling was noticed to somewhat decrease. Several times she had retention of urine. The temperature was at times raised. Lately a mass was noticed protruding at the vulva, and the patient herself snipped a piece of it off with scissors.

On January 21st, 1899, the patient was anæsthetised. An abdominal swelling was felt reaching to the umbilicus. The vagina was filled with a mass having the characters of a fibroid, and which was decomposing at its lower part. With volsellæ and scissors this mass was pulled down, cut up, and removed in pieces. When the greater part of the tumour had been in this way removed, it became possible to explore the relation of the tumour to the uterus. It was found that the tumour was attached to the fundus uteri, which was inverted. The remainder of the tumour was peeled off the inverted uterus, and then the hand was passed into the vagina. The abdominal walls were very thin and relaxed, so that the ring formed by the cervix could be plainly felt through the abdominal wall, and the fingers could be pressed down into it. The fundus uteri was supported by the vaginal hand, and the cervix stretched open by the fingers pressed down into it through the abdominal wall. This done, taxis was made by the vagina, and the fundus uteri readily went up into its place. The patient recovered without a bad symptom. The tumour weighed 2 lbs. 4 ozs.

SUPRARENAL GLAND EXTRACT AS A HÆMOSTATIC.

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IN 1896 Dor, and subsequently Darier, made use of an extract of suprarenal gland in ophthalmic practice. Their object was to reduce hyperæmia of the conjunctiva in cases where operation was urgent, but in which, owing to local congestion, it was difficult to obtain anæsthesia with cocaine alone. Marked success attended these trials, and suggested its further employment in cases of conjunctivitis, keratitis, and iritis. It was found that a single drop of a watery extract was sufficient to render the bulbar conjunctiva anæmic, and under its use, in conjunction with cocaine, iridectomies were performed.

In 1897 Velich confirmed these statements, and affirmed that a watery extract, when dropped into the eye, caused a marked vascular constriction, and so relieved conjunctival hyperæmia, however caused. Velich also investigated the action of suprarenal extract on the vessels lying under the unbroken skin, and found that the normal pink colour quickly disappeared under its application. The same vaso-constrictor action was noticed when the extract was applied to eczematous skin, nævi, and even sarcomata.

In 1898 J. A. Mullen reported the results he had obtained from the use of suprarenal extract in nasal surgery. He, like his predecessors, made use of it for the purposes of operation only, and claimed for it that it not only prevented primary but also secondary hæmorrhage, and increased the anæsthetic effect of cocaine to so marked a degree that the cautery could be carried down to the periosteum with the greatest confidence.

In the light of these results I determined to endeavour to carry the investigations into the hæmostatic qualities of suprarenal gland a step further, and to widen the scope of its utility by treating actual hæmorrhage with it. A suitable case for this purpose presented itself early in August of last year.

The patient, a boy, aged 6, was brought to me with the following history. He had a severe attack of diphtheria in 1804, and during the stage of convalescence had repeated attacks of epistaxis. These had persisted up to that time in spite of every form of treatment adopted. The treatment had been entirely constitutional, not local. For one year before I saw him he had been taking a mixture containing potass. chloras., gr. iii, and tinc. ferri perchlor., m v, three times a day with more or less persistence, but without any effect in diminishing the bleeding from the nose. These attacks of hæmorrhage occurred at all hours of the day and night, often without apparent cause, but sometimes they followed on any unusual exertion. The attacks varied in intensity and duration, often lasted a considerable time (an hour or longer), and the loss of blood was always great. At times he would have three or four attacks on three successive days, and then would follow an interval of a fortnight without an attack. On the whole they averaged three or four a week. During the attacks the child was laid prone, and cold compresses, generally of vinegar and water, applied to the forehead.

On examination of the nasal cavities the only abnormality present was a dilated and angeiomatous condition of the vessels. The site of the hæmorrhage could not be detected. Constitutionally the boy was in a weak state and had enlarged glands in the neck and right groin, probably tuberculous. The lungs, heart, and kidneys (urine normal) were apparently healthy.

At first I ordered a nasal douche containing ext. hamamelidis liq. to be given every night and morning. This was continued for one month without success. On September 17th, 1898, I commenced treating the nose locally by inserting a pledget of cotton wool soaked in a 5 per cent. solution of cocaine into each nostril and leaving them *in situ* for five minutes. On withdrawing these similar pledgets soaked in a saturated solution of boric acid containing 5 grains of dried extract of suprarenal gland to the ounce were inserted and left in for the same length of time. These applications were made on alternate days till October 7th (three weeks); then on every third day till October 31st (three weeks), and afterwards on every fourth day up to November 22nd; making in all twenty-four applications.

The immediate result on the nasal mucous membrane was to produce a condition of ischæmia and the effect on the epistaxis was to cause its cessation. Up to the time of writing there have been no attacks of hæmorrhage since the first application was made.

That there was no hæmorrhagic diathesis present I had occasion to prove on November 28th, when I removed the enlarged cervical glands. There was nothing more than a very moderate amount of bleeding at the time of the operation and no subsequent oozing, the scar having healed perfectly by the sixth day.

I hasten to report this case in the hope that others may be induced to use suprarenal gland extract in the treatment of hæmorrhage due to various causes, as I am led to the conclusion that in this, one of the latest additions to our armamentaria derived from the animal kingdom, we possess a very powerful hæmostatic whose use, unlike some others, is attended by no unpleasant effects either at the time of its application or subsequently.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

DEATH UNDER CHLOROFORM.

A. L., aged 11, an apparently healthy child, was admitted for the removal of a rectal polypus. She was prepared for chloroform in the usual way, and the night before the operation her heart sounds were noted as normal except for an occasional reduplication of the second sound in the mitral area.

On the 10th instant chloroform was administered by the drop method on a single fold of towel by the chloroform clerk supervised by the house-surgeon. The inhalation was gradually increased, the towel being held at first a good way off as the child was a little nervous. In about five minutes she seemed ready. I looked at her, and seeing nothing amiss had her put in the perineal position, and began to stretch the sphincter. She winced, and received three or four more whiffs. After this no more chloroform was given. After the sphincter was stretched and the polypus drawn down the house-surgeon noticed that she was breathing in an irregular and spasmodic way, and that there was some laryngeal inspiratory crowing. The chin was drawn forward, and as she then seemed to be breathing freely I ligatured the pedicle of the polypus and removed it. This took, perhaps, about a minute, and by this time her breathing, which still continued, had again become somewhat irregular and unsatisfactory, although the air passages were free. Her face was pale, pupils dilated, and her pulse was imperceptible; her muscles were relaxed. The head of the operating table was at once lowered, and artificial respiration was begun and continued for about three-quarters of an hour in all. Strychnine was injected, hot cloths applied over the heart, and as a last resort about half an ounce of blood was withdrawn with an aspirating needle from the right auricle, but all without avail.

er face, although pale at first, rapidly became of a livid lthough never intensely so, and the veins at the root of ck were not distended. Once or twice, as I intermitted the artificial respiration for a few seconds, we could see that voluntary movements of respiration went on. This was quite evident to all present, but after one or two breaths the movements became feebler, and we began artificial respiration again. As time went on these voluntary movements became less and less perceptible, then one or two spasmodic gasps were recognisable while the artificial respiration continued, and after that all signs of life ceased. Once or twice at first her colour improved for a few seconds and her pupils contracted slightly, but the improvement rapidly faded away again. Her pulse was never re-established.

From the beginning of the anæsthesia to the first alarm was about seven minutes, and from that to the full alarm was about three minutes, that is, ten minutes in all. Unfortunately, no *post-mortem* examination was obtained.

I am quite convinced that the heart in this case failed before the respiration, and I have recorded the observations which were made at the time in order that others may know the grounds on which this conviction is based. I may, perhaps, be allowed to add that the chloroform was most carefully administered. The same bottle of chloroform was used in two operations on children immediately before this one. Each operation lasted about half an hour, and in neither did the anæsthesia give any anxiety.

Edinburgh. **CHARLES W. CATHCART.**

THE OPEN-AIR TREATMENT OF CONSUMPTION.

BEFORE building too extravagant hopes upon the results of this new departure in the treatment of consumption, it would be well to consider one or two physiological facts that appear to have been somewhat overlooked when estimating the value of the open-air factor of the cure. Nature has arranged that the air we breathe shall be both warmed and moistened. This end she has attained through the adaptations to that purpose of the nasal cavity. When tracheotomy has been performed, one of the risks to be guarded against is pneumonia caused by breathing cold and dry air, and this calamity is guarded against by artificially warming and moistening the air the patient breathes. Now it can hardly be maintained without a degree of hardihood that crippled and diseased lungs need less protection than healthy ones; and when one sees patients suffering from consumption exposed to cold and rimy air till quite late in our winter afternoons or still later, one cannot but feel that the value of the open-air factor is unduly estimated to the disadvantage of the patient and the discredit of the new treatment.

The average vital capacity of the lungs of a healthy Englishman is taken as 230 cubic ins. The amount of air that he is unable to expire from his lungs, the residual air, is somewhere between 80 and 130 cubic ins. As, of course, in ordinary breathing the lungs are not filled to their fullest extent, but from 100 to 130 cubic ins. less than this, we must deduct say 130 cubic ins. from the vital capacity and add the remainder, say 100 cubic ins., to the residual air to enable us to arrive at the amount of air the lungs normally contain. Taking the residual air at 130 cubic ins. this gives us 230 cubic ins. Then the tidal air, or the amount breathed in and expired in ordinary respiration, is variously estimated between 20 and 30 cubic ins. We therefore find that in ordinary breathing a $\frac{1}{10}$ or a little more of fresh air is added to the $\frac{9}{10}$, or a little less, of air contained by the lungs.

Now the air in an ordinarily pure atmosphere contains rather less than 4 parts in 10.000 of carbonic acid; but what is the condition of the amosphere of the lungs? It contains (Landois and Stirling) 4.38 per cent. of carbonic acid, or 438 parts in 10,000. Well, in ordinary breathing we add about $\frac{1}{10}$ of air containing less than 4 parts in 10,000 to about $\frac{9}{10}$ of air in the lungs containing carbonic acid to the extent of 438 parts in 10,000. This is a very important consideration, for it affects our estimate of the advantages likely to be conferred upon a patient by enabling him to mix fresh air containing carbonic acid to the extent of less than 4 parts per 10,000 and in the proportion of 1 part to 9, with his $\frac{9}{10}$ of impure air contained in his lungs (438 parts of carbonic acid in 10,000), at the cost of some personal discomfort and in some cases at all events of considerable risk, when in a well ventilated room that could be made comfortably warm. he could without risk of chill take into his lungs his 20 to 30 cubic ins. of air containing perhaps

5 parts per 10,000 at each breath and mix it with the very foul air contained in his lungs.

Of course the open air and plenty of it is an excellent thing when climate and atmospheric conditions are favourable, and its benefits can be procured for the patient without subjecting him to discomfort and risk, but when one considers the facts of respiration one fails to see where the charm comes in that is to banish the demon of consumption.

When one considers the other factors in the modern treatment of phthisis, the careful and regular feeding, or rather over-feeding, and the perfect rest enjoined whilst there is any rise of temperature, one feels more hopeful, for one perceives in the economising of the expenditure and the adding to the reserves of the strength of the body, a recognition of the fact that Nature is fighting an uphill battle and that she must fight it out on her own lines, and that only by endeavouring to understand her plan of campaign are we able intelligently to assist her in the struggle.

Bournemouth. G. A. GEORGE.

PUERPERAL ECLAMPSIA: CONVULSIONS OF MOTHER AND CHILD: RECOVERY OF BOTH.

ON December 11th, 1898, at noon, I was called to attend Mrs. K., who was in labour. I had not previously seen her, and therefore knew nothing of her past history. She was a primipara. I found a first cranial presentation and the os well dilated. I ruptured the membranes and a few sharp pains brought the child down to the outlet. During a pain the woman became convulsed, tonic and clonic spasms being well pronounced, and lividity over the whole body. She remained absolutely unconscious, even after the clonic spasms had passed away. I was able to feel the clonic spasms of the child *in utero*. During a pause I delivered her on the back by means of Simpson's forceps, but this act brought on another fit, and on the birth of the child—a very small one—I found that it also was in convulsions and remained so for a period of 15 to 20 seconds, the spasms passing away from both mother and child at the same time. The placenta was removed naturally.

The patient remained unconscious for an hour and a-half, having a fit at intervals of half an hour. At this point an idiotic expression passed over the patient's face, and she sprang up in bed and attempted to tear the face of the nurse. By restraint, and the absence of the nurse, the patient was quieted. I then injected subcutaneously $\frac{1}{3}$ gr. morphine and $\frac{1}{50}$ gr. atropine, and with the exception of one fit, she remained quiet but unconscious for five hours. Then a succession of fits supervened, six taking place in half an hour. I further injected subcutaneously $\frac{1}{4}$ gr. morphine, and she then seemed to sleep.

At 8 o'clock next morning she was still sleeping, and had had no recurrence of the fits during the night. She woke as I called at 11 A.M., and recognised me and the nurse, and, though in a dazed condition, was able to converse rationally. From this time on she made a quick recovery. She was unable to pass her urine for two days, necessitating the use of the catheter. On the third day the temperature was 100° F., and I then douched the uterus. I put her on a sedative mixture, and had belladonna plasters applied to the breasts, and she made an uninterrupted recovery. On the fourteenth day I visited her for the last time, and found mother and child doing well.

Dunstable. A. BARNES HUGHES, M.B.

FUNCTIONAL APHONIA.

BY the kind permission of Dr. McBride I had the opportunity of trying, in some cases of functional aphonia, a new method of treatment based on the following principle:

It occurred to me that the aphonia being due to a paresis of the adductor muscles of the cords, this paresis might be treated like that of any other weakened muscle in the body, namely, by repeated exercise against resistance (for example, moderate hill climbing in cases of weak heart, etc.).

For this purpose, while the laryngoscopic mirror is held in the left hand, the non-cutting laryngeal forceps is introduced into the mouth, and, a deep breath being taken in order to open the glottis, their point is pushed down between the vocal cords. The patient is now told to try and phonate, and during these attempts the blades of the forceps are kept well apart, thus resisting the action of the adductors.

This method has been tried with good results in three cases, one of which, a case of inter-arytenoid paralysis, had previously resisted all other treatment, including endolaryngeal electricity.

Edinburgh. WILLIAM FINLAY, M.B., C.M.

GREEN STOOLS IN ENTERIC FEVER AND DYSENTERY.

WITH reference to the editorial note[1] on the occurrence of green stools in some cases of typhoid fever, and the suggested explanation "that the unchanged bile-pigment in the stools may be due to hastened peristalsis associated with extensive ulceration or catarrh about the lower ileum and colon," may I refer to the frequent occurrence of "green stools" in cases of dysentery (as may be seen in an article lately published by me,[2] on 102 cases of dysentery treated by magnesium sulphate). I called special attention to the green colour, which I stated I did not understand. These cases appear to lend support to the suggestion, as the ulceration and catarrh existed in all. Many of the stools I used to call "green pea soup" stools. At first I was inclined to think it due to the use of magnesium, but I found it in other cases treated with ipecacuanha and with olive oil. I may add, however, that though I have since collected notes on over fifty more cases treated by magnesium, this appearance of green stools is much less common. The 102 cases were patients in Dacca, in Eastern Bengal, the later 50 were in Bhagalpur. In the former the patients were all rice eaters; in the latter, rice in morning and wheat in evening was the diet scale. I see no mention of "green stools" in Gemmel's new book on *Dysentery*, but have read of it in connection with cases of yellow fever.

W. J. BUCHANAN, M.B., Capt. I.M.S.,
Superintendent, Central Prison, Bhagalpur.

FIBROMYOMATA OF THE VAGINA.

THE paper of Dr. John Philips in the BRITISH MEDICAL JOURNAL of February 4th, p. 262, brings to my mind a case I saw of this affection some ten years ago; a lady complained of an offensive discharge from the vagina. I found a small fibromyoma equal in size to a hen's egg situated in the anterior vaginal wall. It was sessile, and extended from half an inch posterior to the meatus urinarius nearly to the os uteri. The vaginal mucous membrane was in a sloughy state over the tumour. I removed this portion of the mucous membrane, and enucleated the tumour, brought together the edges of the vaginal mucous membrane, having first of all put some iodoform gauze into the cavity left after the tumour had been removed. A portion of the gauze protruded at the lower angle of the wound, and served as a drain for a few days, when it was all removed, and the wound healed completely in fourteen days. These cases are very rare. I have only seen this one in twenty-six years' hospital and private practice.

Clifton. A. E. AUST LAWRENCE, M.D.

A CASE OF BELLADONNA POISONING.

HAVING just read the paper by Dr. Coutts in the BRITISH MEDICAL JOURNAL of January 28th on the treatment of broncho-pneumonia by large doses of belladonna, perhaps the following notes on a recent case of belladonna poisoning in my practice may be of interest.

The patient, Mrs. M., aged 62, was suffering from chronic rheumatoid arthritis and carcinoma of the cervix. She complained much of pain at times, for the relief of which morphine suppositories were ordered. After the insertion of the third of these their use had to be discontinued, as severe nausea, vomiting, and faintness came about an hour after use.

On December 23rd, 1898, I ordered a belladonna pessary, gr. ij, instead of the morphine. At 8 P.M. the first was inserted. At 9 P.M. she rang her bell, and her attendant then found her almost speechless, and in such a condition that she at once sent for me. On arrival I found Mrs. M. in bed, and in a constant state of movement, endeavouring to raise herself time after time, but failing to do so. Her hands were perpetually picking at the bedclothes, or removing imaginary things from the bed. The mouth was open, the tongue dry, both pupils only moderately dilated. She did not recognise me. She was talking incessantly in a rambling, incoherent manner. The skin was dry and hot, the pulse 104, the temperature normal. I found it impossible to get her to swallow, liquids simply dribbled back out of her mouth, and the contact of a spoon with her lips made her start violently. Putting a candle near her face, to see if the pupils reacted to light, also made her start, and brought on various convulsive movements. The face was much congested, but there was no stertor. This condition lasted till 7 next morning, when she dropped off into a few minutes' natural sleep to awake practically herself, with a slight headache, and no recollection of any of the events of the preceding night, nor of my visit to her.

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[1] BRITISH MEDICAL JOURNAL, December 21st, 1898, p. 1947.
[2] *Indian Medical Gazette*, December, 1898, p. 448.

Clifton. **Reuell Atkinson**, M.D.Durham.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

CARDIFF UNION HOSPITAL.

CASE OF TRAUMATIC RUPTURE OF THE DUODENUM AND JEJUNUM.

(Under the care of A. Sheen, M.D., Medical Officer.)

[Notes and observations by L. G. Davies, M.D., Resident Medical Officer.]

History.

S. A., a Maltese sailor, aged 33, of powerful physique, was admitted at 6.30 p.m. on December 27th, 1898. On the evening of the 24th he had been engaged in a drinking bout with his companions. During an altercation he drew his knife upon one of these, who in self-defence seized his (S. A.'s) two wrists, and in the ensuing scuffle struck him with the bent knee in the abdomen. There was no evidence of a blow from the fist, or of a kick. The next morning Dr. Girvan, District Medical Officer, was summoned to him, and, suspecting internal injury and peritonitis, though unable to make out definite evidence of either, advised instant removal to the hospital. At this time neither abdominal swelling, vomiting, nor marked rapidity of breathing could be observed. There was paralysis of the bladder, and, on catheterisation, Dr. Girvan drew off urine, which was at first clear but subsequently contained coffee-ground deposit, evidently hæmaturic. Owing to the dilatoriness of the patient and of his friends, he was not brought to the hospital until the 27th, as stated.

Condition on Admission.

The man appeared to be dying; breathing very rapidly, his face drawn and anxious and covered with sweat. An ounce of brandy in hot milk was given him at the workhouse entrance before removing him to the hospital, and he revived somewhat. On examining him about half an hour subsequently he was found to be breathing entirely with the thoracic muscles, with a typical "abdominal" face, coated and dry tongue, and marked distension of the abdomen. Examination of the latter did not reveal any localised tenderness, this being general; the pain being chiefly referred to the umbilical region. Tympanites everywhere, the liver dulness, however, being but little encroached upon. Abdomen absolutely silent to auscultation. Rectal examination negative, and at no time was an abnormal motion observed. A full-sized metal catheter passed with ease and drew off clear urine. Pulse rapid and small, but heart sounds good. Regurgitation of gastro-intestinal contents occurred every few minutes; it was not bile stained to any marked extent, nor of fæcal odour at this time, nor did it ever show blood corpuscles under the microscope. Great thirst complained of. Patient's mind quite clear; temperature slightly above normal. Rupture of some portion of the intestinal tract, probably the duodenum, was diagnosed, but operation was considered entirely contraindicated, and palliative treatment by ice, morphine, etc., adopted. Subsequently signs of fluid appeared in the flanks and hypogastrium, the vomiting took on a fæcal odour and occurred more and more often, and death took place at 7.25 on the morning of the 29th, the patient's intellect being unimpaired almost to the last.

Post-mortem Examination.

This was made the same day, five hours after death. No external mark of violence, rigor mortis passing off.

The Abdomen.—On reflecting the parietes of the abdomen, which was examined first, the much-distended small intestine appeared, with injected patches in places. A large quantity (which could not be measured, but which was several pints) of dirty, sero-purulent fluid escaped, with some foul-smelling gas. On examining the intestines *in situ*, the signs of recent peritonitis were most marked in the region of the cæcum and ascending colon; there was also much recent lymph over the rectum as it lay in the recto-vesical pouch. "Suction lines" were general. Only the small intestine was distended, and but the upper portion of this. The intestine being thrown over to the left, the cæcal region was explored. The vermiform appendix was normal. The cæcum was injected and obviously inflamed; these signs increased in intensity on following up the ascending colon, reaching their maximum in the middle of the right flank, where intense recent injection and adhesion of the peritoneum appeared, with flaky yellow lymph, fluid fæces, and apparently altered food (milk ?) thrown out into the peritoneal cavity. The colon was here bound down, though not toughly, by recent adhesions.

Rupture.—The pylorus being now exposed, the duodenum was divided between the ligatures, and the lower ileum being similarly treated, the included small intestine was removed and carefully examined. (Before doing this it was seen that the large omentum was, so to speak, crowded over into this corner—that is, the region of the duodenum—and partly held there by recent adhesions; it was much inflamed. The stomach was neither greatly distended nor collapsed.) On washing out and examining the duodenum, no sign of antecedent ulceration could be found. It was now seen that the junction of the duodenum and the jejunum was collapsed in appearance, not markedly distended as further down. A linear tear, with thinned and ragged edges, about 4 inches long, was seen on the posterior aspect, apparently starting at the junction. Here the gut was intensely injected with petechial hæmorrhages, the appearances of an extremely acute and deep-seated enteritis being general. The mucous membrane was of a deep reddish-purple colour, the coloration shading away gradually into the normal pink, extending down the jejunum and ileum for 12 or 14 inches. In the mucous membrane at the situation of the tear there were no fæces, although present a few inches lower down.

Other Organs.—The head of the pancreas, in direct relation to the tear, "cut" very firmly, almost like so much fibrous tissue, it was deeply injected, and both in feel and appearance differed markedly from the tail and body of the gland. The whole of the intestines, excepting the last few inches of the rectum, were washed out and slit up, but were normal. The stomach, bladder, kidneys, and spleen were normal, also the ureters. The prostate was not dissected out, the bladder being examined *in situ*. Thoracic organs and brain normal; calvarium exceptionally well developed. Finally, the flaps of the abdominal incision were cut into and dissected freely, but no subcutaneous or intramuscular hæmorrhage could be found, and the parietal peritoneum was quite normal.

Remarks.

In Erichsen's *Surgery* (Ed. 10, i, 874) it is stated that "the frequency with which the duodenum is ruptured is due partly to its position, and partly to its fixity. The third part of the duodenum......is uncovered by peritoneum, and is consequently fixed so firmly that it receives the full force of any violent pressure, being unable to slip away from beneath it, as do those parts of the intestine which are completely covered by peritoneum, and attached to a loose mesentery. When the force is applied in an oblique direction from right to left [as was probably the case in this man's opponent dodging the downward thrust of his knife], rupture occasionally takes place at the junction of the movable jejunum with the fixed duodenum. Rupture of the duodenum may therefore occur with or without injury of the peritoneum." I presume that this case belongs to the latter class, the peritoneal inflammation being subsequent to the escape of intestinal contents, judging by the long duration of the case (about four and a-half days), and the apparently delayed onset of symptoms of peritonitis. The rupture was probably facilitated by distension of the gut during the drinking bout, which was a heavy one. The absence of an external or intraparietal lesion of the abdominal wall was completely verified. The distension of the small intestine was no doubt paralytic. Clinically I think the remarkable features were the comparatively little pain felt (although tenderness was marked enough) and the clear-minded state of the patient up to the last. I cannot account for the hæmaturia observed prior to admission. It could scarcely have been due to catheterisation with a congested mucous membrane, or to prostatic hæmorrhage, for one would have expected the blood to be red. Certainly no sign of recent hæmorrhage could be found in the kidneys, although looked for.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

J. F. PAYNE, M.D., President, in the Chair.

Tuesday, February 21st, 1899.

DISCUSSION ON PSEUDO-TUBERCULOSIS.

DR. G. SIMS WOODHEAD stated at the outset that the term "pseudo-tuberculosis" had been responsible for a good deal of misunderstanding, and the number of conditions classified within it were so numerous that pseudo-tuberculosis was no longer of the slightest value as a term in classification, for after eliminating a number of specific conditions which at one time were included under this heading, they had still numerous pathogenic conditions, most varied as to appearance and etiology, described by different writers as pseudo-tuberculosis. The author first referred to a series of cases which came under his own observations during the investigations carried on for the Royal Commission on Tuberculosis, and which were for the sake of convenience spoken of at the time as "pseudo-tuberculous" and which might undoubtedly have been mistaken for true tuberculosis, had not the conditions under which they occurred and the microscopic examination given such definite indications to the contrary. In one case, a guinea-pig which died on the second day after injection of tuberculous meat, much too early therefore to show tubercle as the result of ingestion, the following conditions were found. Venous congestion of the large intestine and cæcum; the solitary glands and Peyer's patches were enlarged and œdematous, and there were small hæmorrhages into their substance; in these glands in the small intestine were white opaque points, sometimes scattered over the whole glandular patch; the mesenteric glands were slightly enlarged; the liver was mottled with small yellow patches; in the lungs were two yellowish grey points; the spleen was normal: the mediastinal glands were evidently enlarged. The degenerated patches were much whiter than in tubercle nodules, and the breaking down was more complete, so that on microscopic examination one could not make out even the outlines of any cells in the degenerated area; no tubercle bacilli could be found in any of the lesions, but micrococci, especially in the form of diplococci, were numerous. As all the other guinea-pigs in the experiment were perfectly free from tubercle, it was agreed to look upon it as some mycosis other than tuberculosis. Without having recourse, however, to microscopic examination, he could not have satisfied himself that it was not a case of tuberculosis. In a couple of guinea-pigs inoculated with raw meat from the same cow, small nodules resembling infarctions were observed in the spleen. On microscopic examination these nodules were found to have a central necrotic area of dead cells, which had lost their outlines and had become fused into irregular masses. Short bacilli, with polar staining, almost like diplococci, were found near the margin; around this central area was a zone of shadowy-looking splenetic tissue; whilst outside this again was a distinct capsule of connective tissue and leucocytes. In another guinea-pig injected with artificial tuberculous milk heated to 70° C. for one hour, at which tubercle bacilli were rendered innocuous, at any rate as regards guinea-pigs, the animal died eleven days after injection. In some adenoid patches there were opaque areas, which were found on microscopic examination to consist of tissue in an advanced stage of necrosis, and at the margin micro-organisms were found, again in the form of short bacilli with polar staining. In another specimen injected with artificial tuberculous milk, heated as before to 70° C. for ten minutes, the animal was killed 101 days after inoculation, and a small yellowish nodule was found near the surface of the liver, and which was found to be made up of a large mass of organising connective tissue, not a single tubercle bacillus could be found and no evidence of caseation. Dr. Woodhead described one or two other conditions which at first sight were mistaken for tuberculous granulations, but microscopical examination showed that there was no true tuberculous structure, and the tubercle bacilli could never be demonstrated. The author next proceeded to discuss some conditions found in the lungs of sheep brought to him by a medical officer of health, who stated that he had had to confiscate large numbers of sheep, showing this condition as tuberculosis. The author at once recognised the condition as what is called in Scotland "hoos"—small, glistening, pearly-grey nodules produced by strongylus or filariæ. Microscopical examination showed that the nodules consisted of small nematode worms coiled and surrounded by proliferating connective cells. Here there was a perfectly distinct process, and one which should certainly not be called a pseudo-tuberculosis. Dr. Woodhead then called attention to Professor Muir's article on pseudo-tuberculosis in birds, where at least six different conditions were referred to as having been described. Professor Muir described a form in birds which was probably the same as that described by Mallassez and Vignal, Nocard and Pfeiffer. Several of these forms of pseudo-tuberculosis had been separated from animals inoculated with material from patients supposed to be suffering from atypical tubercle. In others, again, the guinea-pigs appeared to have been affected "spontaneously," that was, they had contracted the disease quite apart from experimentation. This was a point of considerable importance in connection with Dr. Woodhead's own observations on pseudo-tuberculosis, which evidently occurred, in certain cases at any rate, spontaneously, as in the animal that died two days after inoculation, whilst in another of his cases in which bacilli identical in appearance with those described by Nocard, Muir, and Pfeiffer were found to give rise to this condition on the eleventh day. This corresponded very closely with the condition presented in Professor Muir's experiments, who pointed out that a very marked feature in this special form of pseudo-tuberculosis was that the cells, both leucocytes and connective tissue corpuscles, underwent a very rapid necrotic breaking down, and that caseation and softening both took place at a very early stage, the result being that the centre of a nodule became almost purulent rather than caseous. The proliferative changes in both the author's and Dr. Muir's cases were well marked, and were confined almost entirely to the periphery of the nodule. There was an absence of giant cells, and the bacilli were usually found near the margin of the caseous centre. This accorded perfectly with what the author observed in the pseudo-tuberculosis of guinea-pigs described in the report to the Royal Commission on Tuberculosis. In referring to the fact of old cases found in museums, labelled "tuberculosis," but which more recent investigators had recognised as being cases of actinomycosis, he called attention to a case of aspergillo-pneumonomycosis described by Professor Boyce, of Liverpool. Kotljar divided pseudo-tuberculosis into two groups—those of bacterial origin and those of mycotic etiology, these latter being produced by aspergilli. In comparatively recent times they had passed from an anatomical pseudo-tuberculosis to a pseudo-tuberculosis bacillus. A serious question was opened, however, by the discovery by Frau Rabinowitch in milk, cream, and butter, of a bacillus which morphologically and in its staining reactions, but in little else, was identical with the tubercle bacillus, and there were two positions from which it was absolutely necessary to extricate oneself. There were, on the one hand, pseudo-bacilli which had the morphological and staining characters of the true tubercle bacillus, but which pathologically appeared to be widely separated from it; whilst, on the other hand, there were a whole series of lesions which presented certain superficial resemblances to tubercle, but with certain specific differences, and, most important of all, were not induced by the action of tubercle bacillus. The protean forms of the histological lesions in tubercle made it difficult to describe any single form as typical. They varied at different stages and under different conditions, so that almost every new tissue at some period of its development might be said to be like some stage of a tuberculous process—that was, the rapid infiltration of leucocytes, even the giant cells might be mimicked, the various forms of phagocytic cells, the conditions under which foreign bodies were to be absorbed, and in which, too, irritant substances were produced, the phenomena of endarteritis obliterans, mechanical irritation, etc. Taking the tubercle bacillus as the etiological factor and basis of classification, and taking the investigations of comparative pathologists in recent years who had found many lesions to be tubercle which were not previously so recognised, the author thought it very inadvisable that they should, just as order was being evolved from chaos—bring in any nomenclature which could only ultimately lead to confusion; and he hoped that the discussion would lead to the drawing up of an accurate and comprehensive nomenclature of many of those forms of disease which at present were practically unnamed. Pseudo-tuberculosis as a pathological entity was now no longer in existence; and although it might be necessary, owing to the exigencies of use and wont, to retain the term "tuberculosis," that term should be restricted, as far as possible, to a process which had a distinct etiological factor, and they should minimise as much as possible the evil of the term by eliminating altogether any pseudo-tuberculous processes or pseudo-tuberculous organisms.

Professor **SIDNEY MARTIN** observed that his experience covered somewhat the same ground as that gone over by Professor Woodhead in connection with the work undertaken on behalf of the Royal Commission. The speaker preferred to call the tubercle-like lesions met with in the guinea-pig, cow, pig, and other animals, "bacterial necrosis." The term "pseudo-tuberculosis" was only a makeshift in the absence of more accurate knowledge. One great difference between such bacterial necrosis and true tuberculosis appeared in the difference of distribution. In the guinea-pig, inoculation of tuberculous virus into the subcutaneous tissue of the hind limb was followed invariably by tuberculous infection, which proceeded by a definite course, first the inguinal, then the lumbar glands, the spleen, liver, and later, the thoracic organs becoming involved. "Bacterial necrosis" had been described by Professor Hamilton in one case in the human subject (affecting the liver), but the speaker had not himself seen any example; in the spleen, liver, of the lower animals the condition was not uncommon. Among the most interesting cases of non-tuberculous, caseating, and nodular affections, followed by metastasis, was that, now fairly well-known, recorded by Flexner, of the Johns Hopkins Hospital; this case concerned a negro, 70 years of age, in whom there were areas of consolidation and scattered nodules in the lung; some of these were calcified. There was, in addition, nodular disease of the peritoneum, indistinguishable in its general characters from tubercle. No tubercle bacilli were discovered in section or on culture; an inoculation into the guinea-pig was followed by equally negative result. The latter part of the evidence the speaker regarded as the strongest against tuberculosis. Bacteriological examination revealed the presence of a streptothrix in the lesions, for which last Dr. Flexner had proposed the name of pseudo-tuberculosis hominis streptothricia. He cited two other examples, observed abroad, of streptothrix disease simulating somewhat tuberculosis; in one, that of a young man, there was extensive destruction of the lung and empyema; a streptothrix was present in the consolidated areas of the lung; in the other, besides consolidating lesions of the lung, there were suppurating foci in the skin.

Dr. **WASHBOURN** said that it would be advisable to discard the term pseudo-tuberculosis, as it was somewhat misleading. There were several bacilli which resembled the tubercle bacillus in morphology and in staining reactions. By some observers such bacilli would be called pseudo-tubercle bacilli. They were of importance from the point of view of clinical diagnosis, for by relying upon a microscopical examination alone they might easily be mistaken for the tubercle bacillus. In the urine pseudo-tubercle bacilli of this nature were by no means uncommon. It was on this account that inoculations were necessary for the diagnosis of tuberculosis of the genito-urinary tract. The term pseudo-tuberculosis was usually applied in quite a different sense to the above. It was used to denote diseases which resembled tuberculosis in morbid anatomy, but which were caused by other organisms than the tubercle bacillus. Of late a large number of such diseases had been described. There were many organisms which produced similar anatomical lesions to those produced by the tubercle bacillus. These organisms were of widely different character. There were bacilli such as the bacillus pseudo-tuberculosis, giving rise to caseating tubercles in many animals; the bacillus pseudo-tuberculosis murium, causing caseating tubercles in mice; and the bacillus pseudo-tuberculosis liquefaciens, causing tubercles in the peritoneum in the human subject and similar lesions in rabbits. There were various kinds of streptothrix such as the one described by Flexner in the human lung. There were also organisms which did not belong to the class of bacteria. A form of mould, the aspergillus, had been described as causing a tuberculous lesion in the human lungs. An organism belonging to the class of the blastomyces was described by Gilchrist and Stokes as producing a lesion resembling lupus vulgaris in the human skin; while even nematode worms might produce tubercles consisting of giant cells and epithelial cells in the lungs of cats and the kidneys of dogs. The skin disease described by Gilchrist and Stokes was of especial interest. It resembled lupus vulgaris in its clinical aspect, but it was caused, not by the tubercle bacillus, but by a blastomyces, which was obtained in pure cultivations, and which produced in animals by inoculation tubercles consisting of epithelioid cells and giant cells. It was quite probable that many of the cases of so-called tuberculosis of the skin were due to other organisms than the tubercle bacillus. The speaker had seen such a case lately, in which tubercle bacilli could not be obtained either by microscopical examination or by inoculation. It was quite clear that the lesions caused by the tubercle bacillus were by no means specific, for many organisms might produce exactly the same changes. Again, the lesions produced by the tubercle bacillus were not constant; sometimes there was much caseation with formation of giant cells, while in other cases there was the production of a granulomatous tissue. In fact the tubercle bacillus and the other pathogenic organisms mentioned obeyed a general law. They set up a more or less chronic form of inflammation, the character of which depended partly upon the virulence of the organism, and partly upon the relative susceptibility of the animal. Then the same pathogenic organism might produce several types of inflammation, and the same type of inflammation might be produced by several pathogenic organisms. The most important lesson to be learnt from that discussion was the importance of making a systematic bacteriological examination of every case in the *post-mortem* room. The speaker was afraid that such a procedure was very much neglected, and he did not know of any *post-mortem* room in London where an adequate examination was conducted in every case.

Dr. **JAMES GALLOWAY** observed, in regard to the streptothrix described by Flexner, that it broke up into coccal and bacterial forms; and that Murray had described in what was classed as a case of mycosis fungoides (in a shepherd, following a kick from a sheep) a bacterium which the speaker suggested was possibly a phase form of a streptothrix. In connection with cutaneous disease there were two rare lesions to which he might refer as having some likeness to tubercle. One of these was xanthoma, with giant cells. No tubercle bacilli were demonstrable in such lesions, which might be multiple on the face, as in one case that had come under his own observation. The other condition was one in which growths containing giant cells in large numbers occurred over the body. Such had been classed as giant-celled sarcomata, but erroneously, as appeared from the spontaneous disappearance which such might exhibit. He thought that more weight should be attached to the results of inoculation upon susceptible animals than to histological examination.

Professor WOODS HUTCHINSON exhibited specimens of the viscera of different animals and birds which he had examined at the Zoological Society's Gardens. Some such pseudo-tuberculous lesions were due to strongyli or filariæ ("worm knots"); others, in birds, took the form of plaques involving the surface of the lungs or the walls of the air sacs. Aspergillary mycosis he had observed in the duck, parrot, cormorant, and trumpeter.

The discussion was adjourned.

HARVEIAN SOCIETY OF LONDON.

HENRY JULER, F.R.C.S., President, in the Chair.

Thursday, February 16th, 1899.

VARIETIES OF ECZEMA AND THEIR TREATMENT.

DR. **ARTHUR WHITFIELD** read a paper on this subject. After pointing out that although eczema was one of the commonest of skin diseases, there was no unanimity on the subject of its subdivision, Dr. Whitfield referred to the old classifications of eczema according to etiology, course, and distribution. All these were unsatisfactory, as they either implied a higher state of knowledge than at present existed, or else did violence to the truth by separating different stages of the same disease. The introduction by Unna of the class of seborrhœic eczemas was then discussed, and the evidence upon which this variety was based was examined. The author pointed out that some of Unna's grounds for including seborrhœa of the scalp and psoriasis in this class were in his opinion insufficient, since the histological characters were little else than those of simple inflammation, whilst the bacteriological evidence was incomplete. He then described the characteristics of the seborrhœic group of eczemas which remained after separating off pityriasis of the scalp and psoriasis. These were: (1) follicular origin, (2) sharply-defined margins to the patches, (3) serpiginous spread. After quoting a case of Audry's to show that this variety could occur on parts devoid of glands and follicles, and was probably parasitic in origin, he referred shortly to some other forms, including eczema folliculorum, eczema mycoticum, and eczema circumscriptum. These he considered had better be classed under the general heading of seborrhœic eczema until more was known about the parasites causing them. Passing on to the subject of so-called simple eczema, he said that there were two main opinions about its etiology, one that it was parasitic in origin, and the other that it was a constitutional disorder. He reviewed the evidence in favour of the relationship between eczema and gout, and concluded that although it appeared that gouty persons were more prone to attacks of eczema than others, there was no evidence to show that eczema was invariably associated with gout, nor were there any distinctive points of diagnosis between an eczema in a gouty patient and one in an otherwise sound individual. Colombini's researches on the urine in eczema were referred to as tending rather to prove that there was not any evidence of a toxæmia as a cause of eczema. Dr. Whitfield then summed up his remarks by saying that he thought there were at least two main classes of eczema, in one of which there was no proof of a parasitic origin, whereas in the other there was a good deal of presumptive evidence that the disease was infective in nature. He pointed out that the value of an accurate diagnosis lay in the fact that it was much safer to use strong antiparasitic remedies from the beginning in the treatment of the seborrhœic form than in the so-called simple variety.

Dr. **GALLOWAY** remarked that he thought Dr. Whitfield had taken an appropriate opportunity of protesting against the too easily accepted hypothesis of the bacterial origin of eczema, and he especially agreed with Dr. Whitfield in protesting that no special coccus such as the "morococcus" had been discovered to act as a specific organism. If anyone took the trouble to examine carefully the evidence on which Unna had based his description of his "morococcus" as the specific cause of seborrhœic eczema, it would readily be seen how slight it was. In the case which Unna demonstrated before the Hamburg Medical Society, in which he produced what he called his inoculation vesicle from pure cultures of this "white" coccus, the important clinical fact outstanding was that the lesion so produced was not eczema at all, but something much more closely resembling impetigo. From the time of this demonstration this coccus had been quoted by Unna and many of his disciples as the specific organism in his large group of "seborrhœic eczema." About the same time as Unna, Professor Welch, of Johns Hopkins University, published his observations on the bacteriology of the skin. He showed that the organism which he called the staphylococcus epidermalis albus was a constant denizen in the skin, where it lived a saprophytic existence and appeared to produce no pathogenic effects. No sufficient evidence was on record to prove that the "morococcus" was not an organism of the same class, and there was much to support the view that it was simply a saprophyte. One could not help coming to the conclusion that if any organism did produce seborrhœic eczema, at any rate it was not the "morococcus." Dr. Galloway felt inclined to look upon eczema as the ordinary inflammatory reaction of the skin to many varieties of irritation. There was little doubt that amongst these various irritants bacteria exercised considerable influence. The type of eczema which appeared to be of parasitic origin was the seborrhœic variety, but he wished to emphasise the fact that the evidence in favour of this at the present time was almost completely clinical, and had no definite bacteriological support. It was most important, however, from the practical point of view, to recognise the fact that these varieties existed, as the use of appropriate remedies must be determined by the exactitude with which they were able to define the causation of any individual attack. The value, which had long been appreciated, of antiseptic remedies in the treatment of eczema depended upon the fact that certain manifestations of it were produced by parasitic influence. The more clear they were, therefore, in the recognition of the forms of eczema produced, or influenced by micro-organisms, the more successful would their treatment of the clinical varieties become.

Dr. **BEZLY THORNE** said that he attached more importance to toxic conditions of the blood in relation to eczema than Dr. Whitfield was disposed to accord to them; and he could not regard as valid the argument that, if the kidneys were sound they must be innocent of mischief, because they might, by habit and regimen, be inhibited from performance of their normal function. He entertained no fear of the local effect of salt water, as, in every instance in which patients affected with seborrhœic eczema, had, under his observation, undergone a course of saline baths, the skin had become sound before the termination of the treatment. That result might possibly be attributed to the diuresis which the baths, in all cases, induced.

Dr. **ALFRED EDDOWES** had found Unna's "bottle" bacillus so frequently in seborrhœa cases that he was disposed to think with him that it probably had a causal relation to the disease. But this was hardly the time to deal with the bacteriology of eczema in detail. He thought the word eczema should mean a condition, not a definite disease, unless the word was qualified with an adjective—seborrhœic eczema, impetiginous eczema, tuberculous eczema, etc. He had accidentally inoculated two of his nail beds by handling a patch of impetiginous eczema, and obtained pure cultures of the staphylococcus aureus from the resulting subungual abscesses. Dr. Sims Woodhead referred to the fact in a paper in the *Lancet* some years ago. Dr. Eddowes showed a photograph of a case of eczema contracted probably from a school thimble, and expressed his opinion that this slowly advancing form of dry eczema was of a tuberculous nature. He also showed a photograph to illustrate what he called sympathetic eczema. He had painted a chronic, stationary, sharply-defined patch of eczema on the right forearm of a (?) gouty patient with strong iodine tincture. The following week an exactly symmetrical patch of eczema appeared on the left forearm. In attempting to explain this remarkable reaction he suggested that the vasomotor system, like the muscular system of nerves, was so linked together that a sufficient stimulus to the centres could produce bilateral response, as was observed in the involuntary, genuine, bilateral laugh of the hemiplegic. As for treatment, it was easy to lay down certain definite principles which were always useful. One should keep in mind the physiological state of normal skin. One must dry a wet skin and grease a dry skin. Dabbing with spirit and dusting with powder answered the former requirement, and ointments the latter; while pastes occupied the intermediate place, and were most valuable. Take, for instance, a bad case of "scald head," eczema of scalp in a child. One thorough dressing with a paste such as Lassar's frequently left nothing more to be done by doctor or mother for a whole week, and at once made such a case greatly better and quite manageable. He was surprised to hear the reader of the paper say that he did not find pastes of great service.

Dr. WHITFIELD replied.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

PATHOLOGICAL AND CLINICAL SECTION.

JORDAN LLOYD, F.R.C.S., President, in the Chair.

Friday, January 27th, 1899.

METHOD OF INCREASING THE MOVEMENT OF AN ARTIFICIAL EYE.

MR. PRIESTLEY SMITH showed a patient in whom he had sutured the tendons of the internal and external recti to the conjunctiva as a first step in the excision of the eye, the object being to retain as much movement as possible in the bed upon which the artificial eye rested. In several instances it had given very satisfactory results. This method, in conjunction with Snellen's recent improvement in the form of the artificial eye, would, he thought, prove valuable in lessening the sinking and immobility too often present.

SPASTIC PARESIS.

Dr. **KAUFFMANN** showed a boy, aged 5, who suffered from spastic paresis of both legs and arms, slightly more marked on the right side. The paralysis first appeared four months before, immediately after the patient—then in perfect health—was knocked down at play. When picked up he was unable to stand, but this power returned in a few hours, and on the following day he walked to school; but on the same day the power of walking again left him. From that time until his admission to hospital the father had noticed no change in the child's paralysis, either progressive or regressive. At present the gait was feeble and uncertain, and the feet were kept wide apart, but there was no reeling. There was slight unsteadiness of co-ordinated movements in the legs in the recumbent posture, and some similar unsteadiness in the hands, resembling that met with in early insular sclerosis. There was no interference with sensation. The superficial reflexes on admission were all lively, but within the last fortnight the plantar reflexes had gradually disappeared, the others being preserved. There had also been observed an increasing contracture of the calf muscles, so far easily overcome by pressure on the foot; and quite lately a spastic flexed attitude of the hands and arms had been noticed. All the limbs were unusually weak, the right hand showing this a little more than the left. The intelligence and mental state were in excellent order; speech had at no time been affected, and the eyes showed no abnormality whatever. The family history was beyond reproach. There was no muscular atrophy and the general nutrition was good. Dr. Kauffmann inclined to regard the case as one of psychical neurosis set up by the injury.

DUODENAL GROWTH.

Dr. **FOXWELL** showed the liver, bile ducts, and duodenum of a man, aged 39. The gall bladder was much thickened and its mucous membrane ulcerated in places. The cystic duct was normal in size, but the common and hepatic ducts were greatly dilated up to half an inch in diameter. The liver was enlarged and olive green in colour, in life reaching below the umbilicus. In the duodenum, apparently surrounding the ampulla of Vater, was a large ulcerated cancerous growth, deeply placed in the duodenal wall. The patient was a railway carter, muscular, and well built; both his previous and family histories were good. Eighteen months before admission he had an attack of jaundice, loose, white stools, and dark urine, lasting three months, during which he lost 18 lbs. In January, 1898, he had a second similar attack, losing the 14 lbs. which he had regained since the first attack. The present (third) attack began in September. He had only regained 4 lbs. in weight since the second attack, and during it he lost another 14 lbs. At no time had he observed any pain or tenderness. He was admitted under Dr. Foxwell, December 20th, and died January 15th. His temperature was hectic throughout, at first 97° to 101°, later 97° to 99.5°, and then rising slowly to 97° to 102°. The liver was somewhat tender to firm palpation, and his jaundice steadily increased. On January 13th Mr. Marsh opened the gall bladder and let out 34 ozs. of a transparent mucous fluid the consistence of glycerine. He was unable to pass a probe through the cystic into the common duct, nor did the common duct feel dilated, but the large size of the liver and the unsatisfactory condition of the patient made a thorough examination very difficult. The absence of pain and the presence of hectic with wasting made Dr. Foxwell look upon the case as one of ulceration of the ducts, though the questions of stone and growth were naturally discussed; indeed, three very small stones were found by Mr. Marsh at the time of operation. The difficulty of passing a probe into the common duct was probably due to kinking of the cystic duct somewhat early in the illness owing to the double distension of ducts and bladder. There was no evidence of growth anywhere else in the body.

SUTURED INTESTINE.

Mr. J. W. **TAYLOR** showed two specimens of sutured bowel removed from a patient, aged 47, who had been suffering from chronic obstruction of the small intestine. Operation was performed on January 29th, 1898, and the obstruction was found to be due to very dense adhesions. In undoing these the bowel had to be cut away, and at the most constricted part was slightly opened. The opening was closed by a fine continuous suture, but the operation was followed by a small fæcal fistula. A second operation was accordingly done on June 9th. At this operation the whole of the diseased portion of intestine was excised and the healthy bowel—above and below—united end to end by a double continuous silk suture. During the operation the patient had an apoplectic fit from which she never recovered. She remained unconscious and died, with a rising temperature, on the third day. On opening the abdomen after death no trace of any peritonitis was found, and the sutured bowel was in perfect condition. The specimens produced showed: (1) Small intestine sutured longitudinally; the upper part was still dilated, and a very fine track (of fistula) could be seen proceeding from this to the skin. (2) Small intestine showing circular suture and union after excision.

ULCERATIVE COLITIS.

Dr. **FOXWELL** showed the colon of a woman, aged 25, which was intensely ulcerated throughout, except the upper 3 inches, the transverse portion being most severely affected. The ulcers were all deep, and fæcal extravasation had occurred in several places. The omentum was plastered down over the intestines; the stomach was dilated, the liver soft, very dark brown, and friable. The onset of the illness was sudden and definite six and a-half weeks prior to death. The symptoms were throbbing pain in the lower abdomen on both sides, but chiefly on the left; this pain was increased by food, drink, and exertion; also diarrhœa, severe, but without tenesmus, the stools resembling pea soup, often having small flakes of blood, but no mucous nor shreds of false membrane. With these were increasing weakness and emaciation, though she was able to continue her work for seventeen days. She was only 4 feet 9 inches, and weighed 6 st. 8 lbs. Her mother died of phthisis at 26, and her father of gastric cancer. She died a week after admission. During her stay in hospital she had six to twenty stools a day of the nature above described. The temperature was irregularly hectic, reaching 104°. The abdomen above the umbilicus appeared normal, but below it was doughy, bulging, tender in patches, but nowhere dull nor rigid. An ulcer arose on the tongue, and rapidly increased to the size of a sixpence. She was perfectly conscious to the last.

LIVER FROM A CASE OF GALL STONES.

Dr. **STANLEY** showed this specimen.

DISEASE OF ELBOW-JOINT.

The **PRESIDENT** showed parts forming the elbow-joint removed that morning from a man, aged 26, who had symmetrical elbow-joint disease of nearly two years' duration, which had the clinical characteristics of Brodie's chronic gelatinous synovitis. The man was of typical tuberculous type, and his neck was scarred with the old cicatrices left by chronically suppurating glands during childhood. The bones removed showed in parts well-marked features of so-called "chronic rheumatoid arthritis—stalactitic osteophytis, patches of 'enamel' induration," etc.—whilst in other parts they presented the naked-eye characteristics of chronic tuberculous degeneration. The President thought the joint presented evidence of a double affection—a combination of tuberculous and of "rheumatoid" processes.

H. Langley Browne, F.R.C.S.Edin., in the Chair.

Thursday, February 9th, 1899.

Multinodular Myoma of Uterus.

Mr. **Lawson Tait** showed a specimen from a case in which he removed the whole uterus on account of multinodular myoma, the chief trouble of which arose from its filling the pelvis, and pressing on the bladder, the whole mass being firmly fixed. At the operation the broad ligament was found to run straight from the brim of the pelvis on to the tumour, so that delivery of the tumour was not possible until the broad ligament was opened up according to Penn's plan. This had recently been resuscitated as "panhysterectomy," an entirely indefensible name. Although much lauded for a few months and on a very short trial, its mortality was now found to be as high as in Penn's own time, and it was not likely to find permanent favour. In this case the patient made a splendid struggle for recovery, but died on the ninth day.

Uterine Fibroid with Ovarian Cyst.

Dr. **Purslow** showed specimens which he had removed by abdominal section from a widow, aged 40. She was nulliparous, and had suffered from menorrhagia for several years; for eighteen months the hæmorrhage had been almost continuous, and, owing to the weakness and pain, the patient had been bedridden in a union infirmary during that time, and was sent to the Queen's Hospital by the guardians. There was an abdominal tumour filling the lower half of the abdomen, and varying in consistence, at one point appearing to fluctuate. The abdomen was opened by an incision 8 inches long on April 30th, 1898, when it was then seen that both an ovarian cyst and a uterine fibroid were present, each tumour being about the size of a six months pregnant uterus. The cyst was tapped, and its attachment to the uterus, which covered a large area, was clamped with Doyen's forceps, and the cyst cut away. The uterus, together with the fibroid tumour, was then removed by the method known as panhysterectomy, the broad ligaments being tied in sections from above, the ends of the ligatures left long, and turned down into the vagina. The abdominal wound was entirely closed. The patient made a good recovery, and was now earning her own living in domestic service.

Nephrectomy for Chronic Calculous Nephritis.

Mr. **Jordan Lloyd** showed a kidney removed by lumbar nephrectomy from a man, aged 45, who had been operated on for bladder calculus some twenty-five years before. Nearly seven years ago a stone was removed by lumbar nephrectomy from this same kidney. A lumbar fistula resulted from this operation; the urine always contained pus, and the man was frequently laid up by attacks of lumbar pain. The kidney was small and fibroid, firmly fixed in its bed, and was enucleated from within its true kidney capsule, the vessels being ligatured separately after being caught with forceps. The patient was recovering.

Ulerythema Sycosiforme.

Dr. **Leslie Phillips** showed a case of ulerythema sycosiforme in a man who had had the disease for thirty years, and presented the last stage of the disorder—namely, that of bald scar tissue. In view of the failure of ordinary treatment the exhibitor expressed the view that it might be worth while to freely use the cautery to the spreading border of more recent cases.

Splenectomy for Rupture.

Mr. **George Heaton** showed a boy, aged 9 years, on whom he had operated for severely lacerated spleen, with intraperitoneal hæmorrhage. The abdominal section was performed on December 2nd, 1898, five and a-half hours after the accident. The boy was rapidly dying of internal hæmorrhage. There was no external wound. Two-thirds of the spleen had been completely torn away from the gastrosplenic omentum, and lay free in small portions in the abdominal cavity. The hæmorrhage from the torn splenic vessels was furious. They were clamped and tied, and the remaining portion of the spleen removed. No attempt was made to cleanse the abdomen of blood or portions of the spleen. The boy remained in a most critical condition for several days, but afterwards made a slow convalescence. He was now apparently quite well. During convalescence he suffered from a train of symptoms characterised by feverishness, anorexia, rapid wasting, with anæmia and marked leucocytosis, from which he slowly recovered.

Perforated Gastric Ulcer: Operation: Recovery.

Mr. **Barling** showed for himself and Dr. **Carter** a girl, aged 18, domestic servant, who on November 24th, 1898, was seized with sharp pain in the epigastrium about 8 A.M., after taking a cup of tea and a little bread and butter. The patient rested for a time, and feeling better, got up, when there was a return of the severe pain with marked collapse. Dr. Carter saw her at this time, and diagnosed perforation of a gastric ulcer, administered morphine hypodermically, prohibited mouth feeding, and insisted that the patient should be kept horizontal. There was at this time some vomiting. The pulse was about 30. The patient was seen by Mr. Barling soon after midday, who found her with a rigid tender abdomen, the liver dulness practically abolished, with very high-pitched resonance in the epigastrium extending up behind the sternum; temperature 101°, pulse 108 and feeble. The diagnosis of perforation having been confirmed, it was some hours before the permission of the friends could be obtained for operation. The girl was driven to the General Hospital and operated upon at 8.30 P.M.—that was, twelve hours after the perforation. On opening the abdomen free escape of gas took place, and a considerable quantity of turbid fluid was found towards the pylorus, duodenum, and hepatic flexure of the colon, suggesting that the perforation was in the right end of the stomach. To the vertical incision first made a transverse one through the right rectus was added, and the perforation not being detected here, a further search was made towards the cardiac end. A perforation nearly half an inch in diameter, and entirely free from induration, was now found on the anterior surface of the lesser curvature, and nearer to the cardiac than to the pyloric orifice. This was not accessible to suturing through the wound already existing, so a further transverse incision was made through the left rectus, which greatly facilitated the next step. The perforation was closed with two rows of Lembert sutures, the abdominal cavity was cleansed by flushing with normal salt solution and gently sponging, especially in the subphrenic regions, and the incision was closed except an exit for a drainage tube. Mouth feeding was commenced at the end of thirty-six hours, and the patient had made an uninterrupted recovery, being able now to take solid food without any pain. On careful inquiry into her history before the perforation the only symptom suggestive of stomach lesion was the occasional rising of an acid fluid into the mouth, which the patient described as "heartburn," and slight vomiting two days before the perforation.

Osteoma of Arm.

Mr. **F. V. Milward** showed a tumour removed from the arm of a woman, aged 25. It was noticed for the first time three weeks after her elbow had been reduced for a recent dislocation, and was a hard swelling just above the inner condyle of the humerus, movable and causing no pain, but limiting the movements of the joint. Its position was indicated by a faint haze by the *x* rays. It was found to consist of a shell of cancellous bone nearly half an inch in thickness, containing a cavity lined by a membrane of very delicate connective tissue with spicules of cartilage becoming transformed into bone, and containing a yellowish gelatinous material. The tumour was connected by a fibrous cord to the structures about the elbow-joint.

Nævus of Soft Palate.

Mr. **F. Marsh** showed a boy, aged 6, with a nævus chiefly venous, occupying the right half of the soft palate. Two attempts to obtiterate it had been made in hospitals in London, and Mr. Marsh now proposed to try electrolysis, as excision or ligature would probably mean the loss of a considerable area of the soft palate. The case was shown on account of its rarity.

SPECIMENS.

Mr. **JOHN W. TAYLOR** showed a series of eight specimens illustrating some of the many applications of Vaginal Section in the Treatment of Pelvic and Abdominal Disease. (1) Ovarian Cyst; operation, August 22nd, 1898; discharge, September 5th, 1898. (2) Tubo-ovarian Cyst; operation, February 17th, 1898; discharge, March 3rd, 1898. (3) Tubal Mole from a case of tubal pregnancy; operation, December 17th, 1898; discharge, January 1st, 1899. (4) Tubal Mole, Right Tube and Right Ovary from a case of tubal pregnancy; operation, November 15th, 1898; discharge, November 30th, 1898. (5) Uterus enlarged by Chronic Metritis (possibly myomatous) removed for intractable hæmorrhage, the ovaries and tubes of both sides being reclaimed; operation, May 17th, 1898; discharge, June 2nd, 1898. (6) Uterus, the seat of a Growing Myoma removed together with the appendages of both sides; operation, November 20th, 1897; discharge, December 6th, 1897. (7) Uterus, the seat of Cancer in the posterior wall; operation, September 27th, 1898; discharge, October 15th, 1898. (8) Uterus, the seat of a Large Myoma removed by the combined method of vagino-abdominal, "panhysterectomy;" operation, November 10th, 1898; discharge, December 8th, 1898. The first four specimens were removed by posterior vaginal cœliotomy: specimens 5, 6, and 7 were removed by vaginal hysterectomy. Only in the last case was it necessary to make an incision above the pubes. All of the patients made good recoveries and were convalescent in from two to four weeks after operation.

TONSIL GUILLOTINE.

Dr. **FOXCROFT** showed a tonsil guillotine for which he claimed the following advantages: (1) That two prongs attached to the knife transfixed the tonsil, and prevented its falling into the pharynx; (2) that the act of drawing back the blade ejected the portion of tonsil, so that the instrument could be immediately used for the second. The instrument had been made from his design by Messrs. Mayer and Meltzer.

PAPERS.

Mr. **LAWSON TAIT** read a paper on the term "Conservative Surgery," as it has been proposed to apply it to the Uterus and its Appendages.—Dr. **F. M. ROWLAND** read a paper on the Pathology and Treatment of Angina Pectoris.

EDINBURGH OBSTETRICAL SOCIETY.

J. HALLIDAY CROOM, M.D., F.R.C.P.E., President, in the Chair.

Wednesday, February 8th, 1899.

SPECIMENS.

THE PRESIDENT showed a simple Ovarian Tumour with special reference to the cause of death (acute mania). The operation was simple and easy, and it seemed unintelligible why acute mania should have supervened.—Professor **A. R. SIMPSON** showed a Colloid Ovarian Tumour.—Dr. **HAULTAIN** showed an early Twin Abortion illustrative of Deciduitis Tuberosa.—Dr. **LAMOND LACKIE** showed a drawing of an incarcerated Umbilical Hernia in an infant.

THE PESSARY IN GYNÆCOLOGICAL PRACTICE.

Dr. **J. W. BALLANTYNE** read a paper entitled On the Place of the Pessary in Modern Gynæcological Practice. During the last thirty years the question of the pessary had been under the notice of the Society ten times, and the record of these communications occupied 6½ pages out of a total of 5,463 pages. The last word on the pessary had not yet been spoken. The Edinburgh surgical instrument makers affirmed that during the last twenty years there had been a steady increase in the number of pessaries sold to the medical profession, a steady decrease in the number of varieties asked for, the ring and the Hodge being those mostly in request, the Albert Smith modification of the Hodge in vulcanite being the favourite, and the simple india rubber instrument containing a watch spring the favourite of that type. There had been an increase in the demand for intrauterine curettes (especially Martin's), a decrease in caustic carriers, and intrauterine stems were hardly ever asked for. The catalogues of makers elsewhere supported these data. Next, 20 well-known textbooks on gynæcology were analysed. Eight writers were strongly in favour of this method of treating uterine displacements, 5 were strongly against it, and 7 were critical and even sceptical. The most pronounced advocates did not deny inconveniences, that it required to be fixed with care and intelligence, that it seldom cured, and that it occasionally must give way to operative procedures. Those most strongly opposed to it admit that there was a small residuum of cases in which the pessary either might or must be used. The chief objections that had been raised against the use of pessaries were:—General Objections: (1) Inconvenience.—It necessitated periodical visits to the doctor, entailed frequent douching, might set up or aggravate malodorous discharge, and it might with certain kinds of pessary interfere with marital relations. (2) Inefficiency.—Lawson Tait hated pessaries, but there were cases where he was compelled to use them. Some averred that the evidence of patients as to their help was misleading. (3) Injuriousness.—The intrauterine stem, the Zwanck, and the large ball pessary had been specially condemned, while the ring and the Albert Smith had been generally acquitted. Pruritus, vaginitis, ulceration, fistulous formations, prevention of union of a torn cervix, subinvolution, cancer, and septic inflammation of uterus and tubes were among the alleged evils produced. Balls-Headley was an "apostate from complete faith in pessaries" after having been an intense believer. With advancing knowledge, pessaries, like bleeding, would cease to be. General advantages: (1) Convenience and the avoidance of plastic operation, which was often impossible. (2) Efficiency.—That was undoubted in a considerable number of cases many writers averred. (3) Safety.—Most gynæcologists admitted that the ordinary vaginal pessary with ordinary care was perfectly safe. It was now necessary to take notice of the gynæcologists who gave a critical approval to the employment of certain kinds of pessaries in certain kinds of displacements, and under certain circumstances. Pessaries in prolapsus uteri: I. Incomplete prolapse. The india-rubber rings of Hodge-Smith were claimed as giving relief to symptoms. The alternative kinds of treatment in incomplete prolapse with a certain degree of perineal efficiency were: (1) Purely palliative plugging of the vaginal vault with glycerine or ichthyol tampons, (2) uterine curettage, (3) anterior colporrhaphy, (4) perineorrhaphy. II. Complete prolapse. The stem with an abdominal belt, outside straps, and perineal pad were the only form of support possible. These in old women who either refused or were too weak for operation, or in younger women who absolutely refused any other treatment. By their means a complete prolapse was sometimes converted into an incomplete one, and in time it might be possible to replace the stem and outside straps by a simple vaginal pessary. The alternative procedures to pessaries in the treatment of complete prolapse were (1) perineorrhaphy; (2) colporrhaphy, anterior or posterior, or both, with or without perineorrhaphy; (3) ventrifixation of the uterus; (4) Alexander's operation; and (5) vaginal hysterectomy. Dr. Ballantyne then indicated the rules he laid down for his own guidance in cases of prolapse, and then proceeded to discuss pessaries in antrorsions. 1. Anteversion: In most cases the condition gave no trouble and the remedy was not called for. 2. Anteflexion: Here practically the question was of employing intrauterine stem pessaries, and there was a widespread opinion that these were too dangerous for ordinary use. The alternatives were treatment of the metritis, the occasional passage of the sound, cervical dilatation, division of the cervix, electric treatment twice a week, and, in grave cases, removal of the ovaries. Dr. Ballantyne himself scarcely used pessaries in antrorsions of the uterus. A large number of cases were really rheumatic, and antirheumatic internal remedies gave great relief to the state. Pessaries in retrorsions: Skene thought the good and the evil done by pessaries in retrorsions was about equally balanced. J. C. Webster divided the cases of retroversion into seven classes, and gave special directions for the management of each. Dr. Ballantyne then referred to some leading points of interest in regard to the use of pessaries in retrosions, and quoted the opinions and statements of various writers. The correction of a posterior deviation of the uterus by a pessary was followed by an amelioration or disappearance of the symptoms. The alternative methods were vaginal tamponing, uterine curettage, pelvic massage, cervical amputation, vaginal fixation of the uterus, ventrifixation, and the Alexander-Adams operation. Dr. Ballantyne found it difficult to decide on the means to be adopted in individual cases, and indicated some of his difficulties, and the course he pursued in certain cases. He also cited some illustrative cases. He commended J. C. Webster's rules, and said he tried to follow them. There was great need for a fuller consideration of the kind of pessary to be used. Finally, pessaries in modern gynæcology still had a sphere of usefulness within which their value certainly as palliative, and possibly also as curative, means must be conceded. Dr. Ballantyne appended a bibliography to his paper, which was spoken to by the **President**, Professor **Simpson**, and Drs. **Haig Ferguson**, **Church**, **Brewis**, **Haultain**, **Lackie**, and **McVie**, and the author replied.

Vaginal Hysterectomy for Cancer.

The **President** read a paper on a series of cases of vaginal hysterectomy for cancer. The immediate risks of the operation, when undertaken in circumstances at all favourable, were small. Those cases which succumbed shortly after the operation must and could only be badly selected ones, where the fornices were small, where the disease had involved the posterior wall of the bladder—a condition always difficult of diagnosis beforehand—or where sepsis had resulted. But in any well-selected group of cases such an untoward event was seldom to be expected. In the list of cases now presented all the cases immediately recovered except one, who died from sepsis some days after the operation, due to failure to realise that the uterus was closely attached to the bladder. The question in the present paper was one of remote results, how far the operation prolonged the life of the patient. A case to be immediately and also remotely successful must be attacked in its most early stage. A very early carcinoma of the cervix, still more an early tubular carcinoma of the uterus, will under ordinary circumstances give an expectation of life for the patient of eighteen months to three years. With sarcoma the expectation was distinctly longer. The first question to decide was whether an operation could prolong the patient's expectation of life; and the second, Did it relieve her symptoms and give her an easier death than without operation. The President exhibited a table of all his cases of cancer during the last ten years, remarking that: (1) It was a record, not of all the cases of cancer he had seen, but of those admitted to his ward or seen in his consulting room. (2) Those operated on were differentiated from those not. The majority were private cases, and this was because they were seen earlier. (3) These cases included all the recognised forms of cancer, affecting the cervix and the body of the uterus. An example from each of three forms of cancer was taken. First, a hospital case. A widow, mother of four children, a worker in a mill, presented herself complaining of slight pain in the back, and menorrhagia. There was no leucorrhœa, no fœtid discharge, no bleeding, no emaciation; a certain slight degree of erosion and eversion of the cervix was the only sign of disease found. It was supposed to be cervical catarrh, and was treated as such. There was no improvement in a fortnight; the cervix appeared to become suspiciously hard; a microscopic examination revealed a malignant condition. The case fulfilled every one of the conditions for hysterectomy—mobility, non-involvement of glands, and freedom of ligaments, apparently no infection of the body of the uterus or the bladder. The operation was performed in eighteen minutes, and the patient made a perfect recovery. The operation was done on July 16th. The following Christmas there were several bleeding nodules at the site of the cicatrix, and she was suffering pain. In April the whole pelvis was occupied by a cancerous mass, with hæmorrhage, emaciation, and great pain. She died in summer. Commenting on this case the President said: (1) A more suitable case could not be wished for; both as to general and local conditions the operation could not have been easier or shorter. (2) For a month or two the patient was comparativey well. (3) In six months the disease had returned, in nine months there was a fungating cancerous mass in the pelvis, and in a year the patient was dead. Had she been left alone her expectancy of life would have been from eighteen months to two years, and her sufferings, which were very great, would have been less. A second type: A lady, aged 47, evidently in robust health, but with severe pain in the back and loins, with some hæmorrhagic discharge. The uterus was perfectly mobile, not enlarged, the fornices were free, no glands were involved; there was nothing abnormal save a hard nodular cervix. Examination confirmed the belief that the condition was malignant. The operation was done easily and quickly by Doyen's method. The patient made an unbroken recovery, and went home in a month. Three months later the pain recurred, and soft granular bleeding masses appeared at the site of the wound. She practically lived on opium, and died seven months after operation. The President pointed out that this patient had only a very short immunity from pain. In three months it recurred, and save for morphine her life would have been intolerable. The disease had markedly affected the perineum, though the mass in the pelvis never became very large. Her expectation of life when first seen was from a year to eighteen months, while with all the so-called advantages of the operation she lived seven months. A third type: A lady, in excellent health, save for persistent hæmorrhage for two months, supposed to be incomplete abortion. The uterus, which was enlarged, with the cervix somewhat gaping and well-marked ectropion, was curetted. The *débris* was found to contain tubular carcinoma. A fortnight later another scraping gave the same result. The operation of vaginal hysterectomy was done, the operation being perfectly easy. The broad ligaments were absolutely free, the disease was entirely localised to the fundus and body. Within six weeks she had slight recurrence of the hæmorrhage from the cicatrix, and an enlarged gland in the left groin. She died of malignant peritonitis within a year. A woman's expectation of life with intrauterine cancer was from two to five years. This patient was in excellent health, had hæmorrhage, but absolutely no pain. It was when the disease had spread to the peritoneum that pain came on, became intense, and she died from malignant peritonitis after terrible suffering. A converse case was cited. A lady with supposed senile uterine catarrh, gaping os, profuse hæmorrhage. The cervix was dilated, the uterus curetted, the cavity packed. The scrapings revealed well-marked carcinoma. Further operation was declined. That was in 1894. Now, though seriously ill, she was still alive, and only recently had she suffered much. During these years she had had many consecutive weeks of excellent health. It was pointed out that the duration of four and a half years was probably an under-estimate, because it was certain that her cancer had originated a considerable time before she was seen. Doubtless this was a longer duration than was usually met with. The President concluded by saying that he was dealing only with his own results, and was venturing to criticise no other operator's work. His experience had been unfortunate. The cases operated on were exceptionally favourable ones, and were selected with special care. Bad though his results had been, he trembled to think of them had he operated on cases indiscriminately.

The paper was spoken to by Drs. **Brewis**, **Haultain**, **Haig Ferguson**, and **Lackie**, and the **President** replied.

LIVERPOOL MEDICAL INSTITUTION.

Pathological and Microscopical Section.

F. T. Paul, F.R.C.S., in the Chair.

Thursday, February 16th, 1899.

The Pineal Gland.

Dr. Alfred W. Campbell read a paper entitled Observations on the Anatomy of the Pineal Gland, and on certain pathological conditions arising in it. He described the naked-eye and microscopical characters of this organ. He had examined a large number of glands, and found that normally there was a central cavity or ventricle surrounded by a collection of specialised tissue resembling neuroglia. In exceptional cases, when the cavity was absent, the special tissue was still present. In some glands he found pigmented elements similar to those found in the retina. Dr. Campbell also described several pathological conditions that he had found in the pineal glands. The paper was illustrated by anatomical and microscopical preparations, drawings, and lantern transparencies.

The CHAIRMAN, Mr. LARKIN, and Dr. GRÜNBAUM discussed the paper; and Dr. CAMPBELL replied.

THE DENTAL TISSUES.

The CHAIRMAN read a note on some points in the structure of the dental tissues, and illustrated his remarks by some microscopic specimens and lantern photographic transparencies.

This note was discussed by Drs. and Messrs. RUSHTON PARKER, LARKIN, GRÜNBAUM, MONSARRAT, and BUCHANAN.

SPECIMENS.

Mr. C. G. LEE showed an Epithelioma of the Auricle, and discussed its frequency and relative malignancy in that situation.—Mr. THELWALL THOMAS showed a Testicle and part of the Spermatic Cord, into which extensive hæmorrhage had occurred. They had been removed from a man aged 32. The swelling had appeared spontaneously, and was accompanied by great pain and drawing up of the testicle. The microscope showed no new growth.—The SECRETARY (Mr. Larkin) showed for Dr. JOSEPH WALKER a large Pedunculated Soft Fibroma of the Labium Majus, removed from a middle-aged woman.—Mr. NEWBOLT showed the Left Humerus of a boy aged 16. The upper end was occupied by a round-celled sarcoma. Amputation was performed 10 months ago, and as yet there had been no recurrence.—Dr. STOPFORD TAYLOR showed a microscopic section of an Epithelioma of a Lupus Scar. The growth was situated on the left side of the neck of a man aged 46, who had suffered from lupus for 40 years.—Mr. DOUGLAS CRAWFORD showed some microscopic sections of a portion of an enlarged Prostate, which had been removed suprapubically for urinary obstruction. The patient was aged 54, and had already had bilateral vasectomy performed with no permanent benefit. The section showed an excess of glandular tissue.—Dr. ALEXANDER showed the Brain of a male epileptic aged 20. There was complete atrophy of the left temporo-sphenoidal lobe and of the posterior parts of the frontal convolutions. The fits always began in and affected chiefly the right side of the body. The right leg was permanently partially paralysed, but the paralysis was always much increased after a fit.—Dr. BUCHANAN showed specimens illustrating the structure of Molluscum Contagiosum.—A short discussion followed, in which several members took part.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.—At a meeting on February 15th, Mr. T. DAVIES PRYCE, President, in the chair, Mr. A. R. ANDERSON read a paper based on 117 cases in which he had operated for the radical cure of Inguinal Hernia, to which variety he confined his remarks. These included strangulated cases in which this operation had been done. There were four deaths, two occurring in the strangulated cases. The deaths in the non-strangulated cases were one from bronchitis after ether, and one from cellulitis of the abdominal wall in a fat, middle-aged man, with a bulky, irreducible hernia containing large intestine. Of late he had performed exclusively the Bassini-Halsted operation, which he considered the best. Fifty cases had been operated on by this method without a single relapse as far as he was aware. He said his results would not be accepted by many surgeons, as it was only three years since he commenced to perform this operation; but he considered that experience of Bassini's operation would remove the doubt felt by some as to the probability of a radical cure being effected by operative means. He agreed that this doubt still existed for all operations that left the cord in the canal, and did not obliterate as well as close it. He did not admit that it was necessary for five years to elapse before a Bassini could be accepted as having effected a radical cure; on the contrary, an examination of the dense resulting cicatrix, occupying the site of what was once the inguinal canal, conveyed the conviction from the first that the patient would never again be ruptured at this spot. Mr. Anderson described the operation he was in the habit of performing, and discussed the questions of truss-wearing after operation and the advisability of operating in young children. He never ordered a truss after Bassini's operation unless the circumstances were altogether exceptional. With respect to operating in children, he said it should be adopted as the routine treatment at any age in the children of the poor, and in the children of the well-to-do in all cases of complete scrotal hernia. Among the children of the former it was impossible to ensure accurate truss or pad fitting, and very difficult amongst those of the latter, whilst the absence of mortality and the tendency towards cure rendered the operation at this period of life one of the most successful in surgery. Mr. Anderson showed two cases in which he had recently operated—namely, a man aged 25, and a child aged 19 months, and directed attention to the obliteration of the canal, the absence of bulging, and the firmness of the scar.—Mr. WILLIS showed a male, aged 18, suffering from Dyspnœa of many years' duration caused by a unilateral enlargement of the thyroid, which he suggested was an adenoma and proposed its enucleation.

FORFARSHIRE MEDICAL ASSOCIATION.—At a meeting held in Dundee on February 3rd, Dr. MCGILLIVRAY in the chair, Professor KYNOCH showed a Solid Tumour of the Ovary, associated with a multilocular cyst, weighing 7½ lbs., removed on account of rapid ascites. The liver was cirrhotic, and so the cause of the ascites was doubtful. Reference was made to two other cases of solid ovarian tumours.—Dr. HALLEY showed a Uterus from a case of Ruptured Extrauterine Gestation, and with a fœtus *in utero*. The patient, aged 29, was admitted to the infirmary, in an extremely collapsed condition, suffering severe pain, which had come on suddenly eight hours previously. She stated that she was seven weeks pregnant. On opening the abdomen it was found to be filled with blood, which was seen to be escaping from a rupture in the right Fallopian tube, just external to its junction with the uterus, which was noticed to be somewhat enlarged. The Fallopian tube was ligatured as rapidly as possible and the wound closed, but the patient scarcely rallied at all from the excessive bleeding, and died in ten hours.—Dr. J. W. MILLER read notes of a case of Lateral Sclerosis which he had under his care twenty years ago. The illness commenced with a sudden attack of abdominal pain which recurred at intervals, and was followed later by tetanic contractions; at first in the right arm and later extending. These tetanic spasms were the most marked symptom, and were easily induced. The patient lived three and a half years, having been bedridden three months before her death with paralysis of upper and lower extremities, but having no impairment of the intellect.—Professor STALKER gave an account of a case of Bright's Disease with Uræmia, which had been treated by venesection, with the result that the convulsions ceased. When any signs of impending uræmia showed themselves venesection was performed, and the signs disappeared and the convulsions were prevented. After four venesections the headaches did not recur, but the daily amount of urine still remained low. This improved under internal administration of pilocarpin and tapping of the abdomen for ascites. Other remedies had failed, and the patient was now doing well. Professor Stalker referred to a case which his colleague Dr. Whyte had treated by venesection with the same result. He thought venesection was of distinct benefit in cases of kidney disease where there was very little dropsy and persistent headache, and also in some cases in which cardiac distress was at its worst. Dr. STEELE MOON, Dr. J. W. MILLER, Professor KYNOCH, and Dr. DUNCAN made remarks.

OXFORD MEDICAL SOCIETY.—At a meeting on February 10th, Mr. H. P. SYMONDS (President) in the chair, Mr. FARMER showed (1) A Stomach from the body of a man, showing well-marked Hour-glass Contraction. (2) A Vermiform Appendix lying in the post-cæcal fossa, and firmly attached to the intestine. (3) A Skull with a clean-cut perforation through the mastoid, exposing the antrum. No history attached to the specimen, but the opening suggested the trephine.—Mr. WINKFIELD read a paper on the use of Antitoxin in Diphtheria. Reviewing the mortality returns for Oxford during the past 10 years, he showed that there had been a striking decrease since the discovery of antitoxin in 1894 (the present mortality of hospital cases being 14.17 per cent.). He laid stress on the fact that in no case did laryngeal symptoms set in after the use of antitoxin, while in several cases its timely use rendered the operation of tracheotomy unnecessary. He used Behring's serum, giving 600 units as an ordinary dose in mild cases, 1,000 units in severe cases, while 1,500 units were regarded as a "treble dose." For prophylactic purposes 200 units were sufficient. He rarely had occasion to repeat the injections. After one injection the membrane was noticed to curl up at the edges; it then cleared off rapidly, the glandular swellings of the neck subsided, and the child would usually appear well within a week. He noticed free perspiration, and a tendency to faintness after injection, and usually kept children lying on their backs for three weeks. A rash had occasionally occurred, but he had noted no kidney complications.

Mr. PARKER read a paper on Training in Relation to Athletics.—He drew attention to the importance of (1) regular and graduated exercise; (2) diet. These methods he stated to have been in vogue since ancient times, especially among the Greek athletes. Their diet was at first farinaceous, but meat was substituted later. The chief exercise in training should be that for which the athlete was preparing. By gradually increasing the amount of work done, the body might be trained to undertake tasks which at first would have been impossible; therefore, in those sports, such as rowing, which required severe and prolonged exertion, the training should be long and gradual, rowing in untrained men being decidedly injurious. Mr. Parker insisted on the importance of training according to individual requirements. He deprecated the sudden change from an ordinary diet to an almost entirely proteid one. Since physiologists showed that muscular exertion, unless carried to exhaustion, did not involve increased nitrogenous waste, he advised that the bulk of food taken by an athlete in condition should be of the carbohydrate order. He discussed the vexed questions of "second wind" and "staleness." He regarded second wind as either the result of the readjustment of the systemic and pulmonary circulations, or as due to the respiratory centre becoming habituated to the action of some toxic product of muscular exertion, for example, sarcolactic acid. "Staleness," he thought, was probably an auto-intoxication. An interesting discussion followed.

WIGAN MEDICAL SOCIETY.—At the annual meeting, held on February 9th, the following office-bearers were elected:—*President:* Mr. Luther Cooke, L.R.C.P. and L.R.C.S.Edin. *Committee:* Messrs. Street, Graham, Roocroft, Brady, Cowan, White, and Benson, with the President, Honorary Treasurer, and Honorary Secretary, *ex-officio*. *Honorary Treasurer:* Mr. E. H. Monks, L.R.C.P. and L.R.C.S.Edin. *Honorary Secretary:* Mr. William Berry, F.R.C.S.I.—At the annual dinner, which took place afterwards, a goodly number of members were present, with the following visitors: Professor W. Mitchell Banks and Dr. Barr (Liverpool), and Dr. Hayward, President of the St. Helens Medical Society.

REVIEWS.

THE ANATOMY OF LABOUR AS STUDIED IN FROZEN SECTIONS, AND ITS BEARING ON CLINICAL WORK. By A. H. F. BARBOUR, M.A., B.Sc., M.D., etc. Second Edition. Edinburgh: W. and A. K. Johnston. (Cr. 8vo, Pp. 362; pl. xi; fig. 15. 6s.)

DR. BARBOUR is well known as a pioneer in this country of the study of the anatomy of labour. The first edition of this work, published in 1889, was the first attempt by an English writer to place within the reach of the profession a systematic account of the contributions made by sectional anatomy to the scientific study of obstetrics. The new edition is rendered necessary by the publication during the last ten years of 25 additional sections, so that we are now in possession of 38 in all. Of these, 7 were taken before labour, 13 in the first stage, 8 in the second, 2 in the third, and 8 in the puerperium. No fewer than 6 of these cases have been observed by Dr. Barbour himself, either alone or in collaboration with Dr. Clarence Webster. This is the largest contribution made by any single observer to the subject.

The results obtained by the second series of sections are, in the main, confirmatory of previous observations, but valuable additions to our knowledge of the anatomy of the second stage have been made by a case, published by the author, of a woman in labour who died suddenly from cardiac disease, with the fœtal head distending the perineum. The principal facts brought out by this case, with their clinical bearing, are set forth in a new chapter, which will be found to be of the greatest interest and importance. The drawings and casts of the parturient canal at the end of the second stage show very clearly the differentiation into an upper active portion which thickens, and a lower passive one which thins, the two being separated by a more or less well-marked retraction ring. The latter is now known to be found in normal labour, while in obstructed labour it merely becomes exaggerated.

With regard to the attitude of the fœtus, the important point has been established that the normal position of the head before labour begins is one of full flexion, the chin lying against the sternum; it is doubtful, therefore, whether anything comparable to the classic description of the movement of flexion can occur early in labour, for the head is fully flexed beforehand. Flexion, in fact, is, as Dr. Barbour says, "not a movement but an attitude." Another point brought out is that the movement of internal rotation is due to rotation of the head on the neck, and is unaccompanied by a corresponding movement of the shoulders. The beautiful illustration on Plate vii of the fœtus from the author's second-stage section, shows that at this period there is marked extension of the spine producing a considerable space between the flexed arms and legs. This extension of the body accounts for the fact that the fundus of the uterus is at about the same level, at the end of the second stage, as at the commencement of labour.

The plan adopted in the first edition is preserved, the book being divided into two parts. Part I consists of a systematic description of the anatomy of pregnancy and labour, while Part II is made up of abstracts of the principal literature of the subject, which is now large. The number of illustrations has been doubled, and the letterpress increased by 100 pages. The plates are beautifully executed, and, with the exception of those illustrating the microscopic structure of the placenta, are clear and exact, as anatomical drawings should be. The placental sections are, however, as the Germans would say, *schematisch dargestellt*, and therefore of less value.

IDIOPATHIC ULCERATIVE COLITIS (DYSENTERY). By JAMES F. GEMMEL, M.B. London: Baillière, Tindall, and Cox. 1898. (Demy 8vo, pp. 148, 6 coloured plates and 18 other illustrations. 12s. 6d.)

DR. GEMMEL's work is a valuable contribution to the study of dysentery. It is the result of over ten years' experience of the disease in England. In the seventeenth century the number of deaths in London due to dysentery was never less than 1,000 annually, and in some years exceeded 4,000. Now, like malaria and leprosy, dysentery is almost unknown in ordinary practice, but, as Dr. Gemmel points out, it is still prevalent in the asylums for the insane, and especially in some of the larger institutions which have been for years endemic foci of the disease. Idiopathic ulcerative colitis is the name under which most cases are tabulated in the asylum reports, but Dr. Gemmel believes them all to be cases of genuine dysentery. The disease shows no predilection for any special form of mental disease, but attacks the feeble and debilitated of all types. Age and sex have no importance, but length of residence seems to increase susceptibility. Contrary to the statement of some writers, second attacks are by no means uncommon. Although, as a rule, the disease shows no seasonal preference, it is usually more prevalent in winters of exceptional severity. When scurvy and purpura were prevalent dysentery was frequently associated with them; now it follows in the wake of typhus, influenza, and malaria. The combination of dysentery and tuberculous disease of the lung is rare; the author's opinion that tuberculosis confers a peculiar immunity against dysentery must be received with caution.

Dr. Gemmel gives an accurate sketch of the disease as it manifests itself in the communities of the insane. In speaking of complications, he notes the frequency and fatality of pneumonia, the rarity of abscesses of the glands and viscera, and especially the rare occurrence of peritonitis which is so frequently connected with tuberculosis of the bowel.

The author mentions the several methods of treatment which have been most vaunted, such as venesection, purgatives, mercury, ipecacuanha, and medicated enemata. He recommends the use of quinine, which he has found to be most efficacious.

Four coloured plates and several reproductions of microscopical sections within the text show that special attention has been bestowed on the morbid anatomy. The author is led from his observations to maintain that the disease begins in the mucous coat, and is only secondarily extended to the follicles.

As to etiology, Dr. Gemmel is not inclined to believe bacterium coli commune and amœba coli to have more than an accidental relationship to dysentery, because they are so frequently found in the stools of healthy individuals. He admits, however, that there may be several forms of dysentery due to distinct parasites, and publishes the investigations of Dr. Goodliffe who, having isolated another bacillus from the rich fauna of the colon, claims it to be the cause of English dysentery.

MANUAL OF BACTERIOLOGICAL TECHNIQUE AND SPECIAL BACTERIOLOGY. By THOMAS BOWHILL, F.R.C.V.S., F.R.P.S., late Special Lecturer on Bacteriology, Medical Department, and Professor of Bacteriology, Veterinary Department, University of California, etc. Edinburgh: Oliver and Boyd. London: Simpkin, Marshall and Co. 1899. (Roy. 8vo, pp. 296, 100 illustrations. 21s.)

IN recent years the number and excellence of the textbooks on bacteriology have been so great that the courage of an author who adds to their number must be admired, though we cannot expect many new features. Mr. BOWHILL has justification for adding to the list, for his book may be said to be a handbook of methods, accompanied by an atlas along with short textual descriptions of the more important organisms found in disease. The work will be especially valuable to those who wish to have a laboratory handbook giving the most recent methods now in use, especially in the German laboratories, in which, from internal evidence, it would seem that the author has comparatively recently been working. His classifications and descriptions of organisms, moreover, are those usually adopted in Germany.

The author commences with a very sketchy classification of bacteria, followed by a short account of their morphology. He then gives methods of sterilisation, one of which, a very simple one, will be useful to those using *post-mortem* instruments, and may be mentioned here. The knife is dipped in benzine, which is then lighted, the flame being sufficient to sterilise the metal. If this contention be borne out in practice, this method should be a very convenient one, especially for laboratory use. The principles of bacteriological technique, though somewhat condensed, will be specially useful for reference by those who are being, or have been, taught in a practical class. The section dealing with staining methods is very full, and many of the stains given are exceedingly good. Under potato media the advice given in italics not to use the potatoes until they are cold is surely superfluous.

The most important new features in the part devoted to special bacteriology are that the author gives an account of the bacteria found in milk, whilst he lays considerably more stress on those organisms that are found in diseases of animals than do most authors of bacteriological textbooks. He discusses such conditions as African farcy, pleuro-pneumonia contagiosa bovis, foot-and-mouth disease, canine distemper, gives an account of the streptothrices, and also of the bacteria associated with meat poisoning; whilst for the general student of bacteriology he goes into the causation of acetic and butyric fermentation, deals specially with the abnormal fermentative changes occurring in beer, wine, and sugar, and gives an account of the organisms occurring in the leguminous nodules and in the nitrifying processes. He also has chapters on the hyphomycetes or mould fungi; on the various forms of pathogenic and non-pathogenic blastomycetes or yeasts; whilst in a supplementary chapter he gives an account of the protozoa or animal parasites, of which he draws up a list of a dozen, including those found in the Texas cattle fever, in the Australian tick fever, and in the ixodic fever of Jamaica.

The book is one to be used in class and along with tutorial instruction, as most of the descriptions are so condensed that they form reference notes rather than full descriptions. For those for whom the work is intended this of course is a very great advantage, but it is necessarily accompanied by the disadvantage that it renders the work of comparatively slight value to those who have had no practical instruction. However, this after all should be looked upon as a distinct merit, as bacteriology is now advanced to such a position that a mere textbook knowledge, however full, cannot be of sufficient value to the student who wishes to make himself master of the subject. It should be noted here, too, that the work is entirely morphological except in so far as the organisms are related to disease and fermentation. No attempt is made to go into the chemical and physiological questions bound up in the life-history of these bacteria; there is offered simply a basis for a study of the examination and cultivation of the special bacteria mentioned. The work is well printed, and the microphotographs are excellent.

DAS AEUSSERE OHR, von Professor Dr. G. SCHWALBE (Strassburg). MITTELOHR UND LABYRINTH, von Professor Dr. F. SIEBENMANN (Basel). [The External Ear by Professor Schwalbe (Strassburg). Middle Ear and Labyrinth by Professor Siebenmann (Bâle)]. HANDBOOK OF HUMAN ANATOMY, by Professor KARL VON BARDELEBEN (Jena). Fifth volume. 2nd Section. Jena: Gustav Fischer. 1898. (Roy. 8vo, pp. 113-324.)

THE importance of this work will be obvious when we consider the eminence of the authors concerned in its production. The book begins with a description of the auricle, from the point of view of its conformation in man and the lower animals, its development, size, position, and variations both in individuals and races. Gradenigo's observations on the abnormalities of the auricle in criminals and lunatics are freely quoted. The relative frequency of the "Darwin" auricle among the English is interesting, if not important. The muscles of the auricle are beautifully illustrated. The next chapter deals with the external auditory meatus, and is richly illustrated with engravings of sections and casts. The paragraphs of the external meatus, at the various periods of its development, is peculiarly interesting, showing well the fibrous tympanic plate described by Symington, whose work has evidently been accepted as of the highest authority. A very full list of literary references is appended.

The description of the middle ear and labyrinth forming the second half of this volume is given with great fulness by Professor SIEBENMANN. He commences with a short account of the comparative anatomy, including, among other interesting observations, those of Kreidl made on goldfishes to the effect that they perceive sounds although devoid of a cochlea. This they appear to do by means of the highly-developed sense organs along the lateral line. Very valuable accounts are given of the various methods of dissection and preparation which Professor Siebenmann has carried out with extraordinary industry, as his specimens in the Anatomical Museum of Bâle amply show. Among the most recent is the Semper-Riehms turpentine method, which preserves the skin and other soft parts almost like an india-rubber cast. The corrosion method of preparation with which Professor Siebenmann is so much identified in the minds of otologists comes in for the fullest description, and, in point of fact, it is from the results of this method of preparation that a great part of his description is derived. The extraordinary complexity of the cells in the petrous bone can hardly be realised by any method except by the combination of corrosion and metal cast. The description of the middle ear is extraordinarily full, and will appeal not merely to the pure anatomist, but to the practitioner of aural surgery. The anatomy of the pockets of the external attic will be found extremely helpful to those who treat the diseases thereof, and they explain how an inflammation of the middle ear may subside but yet leave a focus of disease in this particular region. The want of agreement between the anatomical and the otoscopical description of the position of the handle of the malleus is made clear, as is also the explanation of the appearance known as the triangular light spot. Professor Siebenmann looks upon the cuticular layer of the membrane as a very thin epidermic stratum devoid of corium, and quite different in its histological structure from any other part of the covering of the body, approaching, however, most nearly to that of the cornea and the finger nails. With the last it has the further analogy that, under normal conditions, its superficial layers do not peel off, but push their way towards the margins (p. 262).

The inclination of the tympanic membrane at different ages is described, including some original observations showing that the angle of declination and inclination in the newborn child is somewhat less than in the adult. The idea, that the plane of the membrane at birth is nearly horizontal, is therefore erroneous. The description of the tympanic cavity, the observations in regard to the floor, are all of extreme interest, the relation to the bulb of the jugular vein being particularly important. The corrosion preparations show a multiplicity of air cells communicating with this cavity, which accounts for the difficulty in treating many cases of suppurative disease in this part. The casts showing the anatomical conditions at different ages (page 295) are very instructive, that of the newborn child with well-developed antrum and wide Eustachian tube being very striking.

The description of the internal ear is extremely detailed, and is intended for the investigator rather than for the student, to whom a more schematic and graduated guide to the anatomy of this structure would possibly be more welcome. Professor Siebenmann has evidently made a labour of love of the investigation of the vascular supply to the labyrinth, the bearings of which on the understanding of the pathology of the part are extremely significant. Several illustrations, similar to those published in his monograph on the subject, help to make his description interesting and intelligible. From what has been said above, it will be seen that the practical otologist will find a sympathetic and helpful description of the parts with which his practice is concerned, and the pure anatomist will find those details which he most desires.

MANUAL OF DISEASES OF THE SKIN. By L. DUNCAN BULKLEY, A.M., M.D. Fourth Edition, revised and enlarged. London: J. and A. Churchill. 1899. (Crown 8vo, pp. 362. 6s. 6d.)

THIS is a brief account of diseases of the skin intended for the use of students and general practitioners. That a fourth edition has been called for is a proof that the *Manual* has found favour. Looking at it from the point of view of those to whom the book is addressed, there is certainly room for improvement. To use the terms Lichen, Lupus, and so forth, without qualification must lead to confusion. Lichen alone means practically nothing. Again, such a statement as "bullæ are observed in dermatitis" is vague. The author introduces and uses terms not usually employed in this country, such as "tinctura" for stain, "phyma" in a general way for tumour, and anthrax in the sense of carbuncle. An interesting feature is the analysis of 20,000 cases in public and private practice, but here again the usefulness of the table for purposes of comparison is diminished by the nomenclature adopted: erythema, lichen, herpes, cystum, and so forth. Epithelioma is made to include rodent ulcer and Paget's disease; and contrary to the views which obtain in England, herpes gestationis is considered under herpes, and apart from dermatitis herpetiformis. The list of diseases in which micro-organisms "have been claimed to be etiological factors" must be confusing to the student. Tokelau ringworm is given as a synonym of eczema marginatum. The descriptions vary in quality; some are so brief as to be of very little use to the general practitioner. The paragraphs on differential diagnosis cannot be considered as adequate. The book is furnished with a formulary, a general index, and a separate diagnosis index.

NOTES ON BOOKS.

TWO VACCINATION PAMPHLETS.

FEW writers are so well acquainted with German vaccination statistics as is Dr. ARTHUR F. HOPKIRK. His special knowledge enables him, in a pamphlet entitled *Anti-Vacc. Veracities: a Commentary* (printed and published by the author at 111, Fleet Street, London, E.C., price 1d., post free 1½d.) to expose various antivaccination sophistries and misstatements relating to Germany, and promulgated in this country. The facts which he adduces are themselves quite strong enough to convey their own inferences regarding the writers whom he criticises; and, indeed, their effect is apt to be lessened rather than increased by any unnecessary vehemence of language, though no doubt it is rather aggravating to a man who knows the facts to read the unmitigated nonsense which often appears in newspaper letters against vaccination. Dr. Hopkirk's tract contains a good deal of information very useful for controversial purposes, and medical men who are interesting themselves in public correspondence on this subject would do well to obtain a copy. We would also recommend the pamphlet to the consideration of the Jenner Society, as a possible addition to its list of publications.

A second edition of *Facts Concerning Vaccination* for Heads of Families (8pp. Sanitary Publishing Company), has been issued by the National Health Society, 53, Berners Street, W. It is a useful leaflet, and states briefly and in simple language most of the leading facts about vaccination as a preventive of small-pox. The leaflet is intended for local distribution, and has on its front page blank spaces for the names of the public vaccinator, medical officer of health, and sanitary inspector. It is supplied at 9d. per dozen, 5s. per 100, and 21s. per 1,000.

ANNUALS.

The thirty-fifth annual issue of *Herbert Fry's Royal Guide to the London Charities* (London: Chatto and Windus. 1s. 6d.) is again edited by Mr. JOHN LANE, who, in his preface, expresses the opinion that the year 1898 was not a good one for charitable institutions. He attributes this in some measure to the Prince of Wales's Hospital Fund, which diverted contributions to one great centre, from which distribution was for a time delayed. He does not, however, deny that the net result may be a gain to the revenue of charities. The volume contains in a condensed form trustworthy particulars as to the charities of London, their objects, annual income, and chief officials. The information is arranged in alphabetical order, and the volume is supplied with a classified index.

The Local Government Annual for 1899, edited by S. EDGECUMBE-ROGERS (London: *The Local Government Journal* Office. 2s. 6d.) has now reached its eighth year of publication. It gives the names and addresses of the chief officers of local authorities in England and Wales, but for convenience of reference it is marred by the sprinkling in of advertisements. There is a chapter which under the title "encyclopædia of local government," gives a good deal of miscellaneous information of use to officials. We find here a statement to the effect that local bodies in England and Wales are now taking from the ratepayers 25 per cent. more than four years ago, and it is calculated that if this rate of increase goes on ratepayers will be paying in 1907 just twice as much as they were paying in 1891. The rate in the pound has increased by 13 per cent. in London and by 20 per cent. in the country as a whole during the four years, while the amount raised from rates has gone up by nearly 35 per cent. between 1887 and 1897. The amount expended by local authorities in 1895-96 was sixty-two and a quarter millions; four years earlier it was not quite fifty-three millions. Moreover, the borrowing is going on at a greater rate, for the loans received in 1895-96 amounted to nearly twelve and a quarter millions, whereas in 1891-92 the amount was ten millions. The outstanding loans in 1895-96 amounted to nearly two hundred and forty-three and a quarter millions as against two hundred and seven and a half millions in 1881-82. Dr. Poore foretold some years ago the coming revolt of the ratepayer, but these figures would appear to indicate that his endurance was underestimated.

The new edition of *Dod's Parliamentary Companion* (London: Whittaker and Co. 1899. 4s. 6d.) is corrected down to the end of 1898, and contains in an appendix a list of the New Year honours so far as they affect members of either House of Parliament. This annual is too well known to need special commendation from us. Not the least useful part of its contents is a kind of glossary of Parliamentary terms, which has been revised by Sir Reginald F. D. Palgrave, Clerk of the House of Commons, than whom no greater authority on the subject exists.

THE PREVENTION OF TUBERCULOSIS.

AMONG the many signs of a general awakening to the necessity of taking steps for the effective prevention of tuberculosis, it is especially satisfactory to note the ardour with which medical officers of health all over the country are throwing themselves into the fray. Not only are they prominent in the public meetings which are being held in so many places with the object of forming branches of the National Association for the Prevention of Consumption and other Forms of Tuberculosis, but they continue to press the matter as one of urgent importance on the attention of local authorities. Tuberculosis begins to bulk large in their reports. Mr. W. Brown, the Medical Officer of Health for Carlisle, referring in his report to the operation of the Carlisle regulations for the prevention of tuberculosis, suggests a temporary solution of the difficulty caused by the want of notification. Three months before the report of the Royal Commission on Tuberculosis was published, Mr. Brown induced the Carlisle Health Committee to adopt three recommendations, which were subsequently approved by the Council. One was that all dairy cattle supplying milk for Carlisle should be subjected to regular veterinary inspection; another was the rigid enforcement of by-laws as to air space in cowsheds; the third was an extension of the provisions of the Infectious Diseases Notification Act to pulmonary phthisis, tuberculous meningitis, and tabes mesenterica. As regards the last of these regulations, the Local Government Board, as was stated in the BRITISH MEDICAL JOURNAL at the time, refused to confirm the decision of the Carlisle Council. Mr. Brown sees no more objection to the notification of the three tuberculous diseases mentioned than there is to the notification of diarrhœa, which is recommended by the Local Government Board as a temporary expedient when Asiatic cholera threatens to invade this country. In any case he thinks there can be no insuperable reason against a voluntary notification from medical men connected with public medical charities and from Poor-law medical officers among whose patients tuberculous diseases chiefly prevail. The information obtained in this way would afford valuable data as a basis for action. The tuberculin test, to which dairymen were at first opposed, is now looked upon with greater favour in the district, but the Urban District Council have no jurisdiction over the dairies outside their area. The question of establishing veterinary supervision over those dairies is now under the consideration of the Cumberland County Council.

In his report to the Kensington Vestry, Dr. T. Orme Dudfield refers to the fact that in his report for 1881 it was stated that "modern researches, which have thrown great light on the origin of tubercle, raise a presumption that tuberculosis may really be an infectious disease—a specific fever of slow progress, with a veiled resemblance to other specific eruptive fevers." The view that the spread of tuberculous disease was favoured by insanitary conditions, as well as the means of combating the disease, found expression in the report for 1879, wherein it was observed that "abundance of sunlight and warm air, efficient drainage and its corollary, a dry soil, good food and warm clothing, and temperance in all things are powerful antidotes to the bane of tubercle which is fostered by the opposites—by filth and squalor, by cold and nakedness, by the want of the proper necessaries of life, by overcrowding in ill-constructed, unventilated, and sewage-tainted houses, and, in a word, by whatever is inimical to the maintenance of a typical condition of health." Dr. Dudfield refers with approval to the objects of the National Association for the Prevention of Consumption.

Dr. Chas. J. L. McLean, in his report to the Yeadon Urban District Council speaking of the tuberculin test, says:

> In Denmark (the greatest of dairy countries) this test is applied to every animal on the various farms, and any affected ones are at once removed, and kept separate until recovered, which takes place in a large percentage of cows, or if found to be in an advanced stage of the disease, or incurable, are destroyed, full compensation being paid to the owner by the State. Doubtless this method will soon be made compulsory in England, and the matter of compensation for animals destroyed can surely never stand in the way of the State when the question of the lives at stake in the country is considered, and it seems to me quite possible that some method of insurance might be devised giving mutual benefit alike to the buyers and sellers of all cattle should any of them be found to be tuberculous. When this becomes law we may expect a further improvement in the death-rate from consumption and other tuberculous diseases, and in the meantime much may be done by the cowkeepers to reduce the evil by keeping their cows under the most sanitary condition possible, and certain it is that the more this is done the greater will be the demand for the milk they supply. Dr. Brown, the medical officer for Carlisle, has very recently pointed out that certain breeds of cows are more susceptible to this disease than others, for example: "Old cows of the shorthorn breed are more dangerous than the Scotch Galloway, or the cross-bed blue-grey, a point which might well be observed by dairy farmers in their selection of milch cows." Quite recently a movement has been set on foot to erect sanatoria in various parts of the country for the treatment of consumption. This is a very great advance on the present methods, and will be readily appreciated, especially by sufferers in poor circumstances, but in my opinion the *prevention* of the disease rather than its cure is *the* correct principle to adopt.

In connection with the pressure that is being brought to bear on public authorities in regard to the prevention of tuberculosis, it may be mentioned that more than 3,000 copies of the report issued by the Council of the British Medical Association on the subject have been circulated among members of municipal councils, vestries, and other bodies. A large number of copies have also been sold.

ABERDEEN.

At a meeting of the Public Health Committee of Aberdeen Town Council on January 15th, Dr. Robertson, convener, in the chair, a report was submitted by Dr. Matthew Hay, stating that practically all the local authorities in Aberdeenshire and Kincardineshire, and several in Banffshire and Nairnshire, had agreed to join the arrangement that was recently made between the Aberdeen Town Council and Professor Hamilton, Marischal College, for the conducting of bacteriological investigations in connection with infectious disease. In regard to the remit from the council on the sterilisation of milk, Dr. Hay said that he would much prefer that the subject should be widened, and that a further remit should be obtained from the Town Council to deal with the whole question as to what steps should be taken in order to prevent the spread of tuberculosis. The sterilisation of milk formed only one point of a very important question, and he suggested that something should be done in the way of the Town Council taking the initiative in a private sanatorium or hospital for the treatment of cases of consumption. Dr. Beveridge urged very strongly the desirability of having such a hospital or sanatorium in Aberdeen. Dr. Hay thought that something should be done by the Public Health Committee to prevent spitting in tramcars and other public conveyances, this being a prolific source of infection. This disgusting practice ought to be put down in some way or other for the public safety. After consideration it was unanimously agreed to ask the Town Council for a remit to consider the whole question.

TUBERCULOSIS IN DAIRY STOCK.

The Royal Agricultural Society of England, with the object of assisting dairy farmers in meeting the requirements of sanitary authorities under the present circumstances, has issued a leaflet giving instructions as to the use of the tuberculin test, and as to the precautions to be taken in order to prevent the spread of tuberculosis among herds. The leaflet concludes with the following passage:

> That the decided effort which is now being made to arrest the spreading of consumption and other forms of tuberculosis in man will gradually lead to the enforcement of strict precautions against the sale of milk from tuberculous cows cannot be doubted; and it is of the utmost importance that dairymen should realise the necessity of doing everything in their power to eradicate tuberculosis from their herds. It has been proved that much can be done in this direction by the owner, with the advice and assistance of his veterinary adviser.

Copies of the leaflet, which gives in simple language just the information which owners of stock and dairymen need, can be obtained free of charge on application to the Secretary of the Royal Agricultural Society, 13, Hanover Square, London, W.

JERSEY.

We have received a copy of a report presented on December 2nd, 1898, to the Jersey Medical Society by a Subcommittee appointed on June 9th, 1898, to investigate the prevalence of human and bovine tuberculosis on the island. The members of this Subcommittee were: Drs. Alf. C. Godfray, President; Edwin Godfray, Vice-President; Ernest O. B. Voisin, Librarian; and P. B. Bentlif, Honorary Secretary. Their report states that in order to get definite data on the subject of their investigation they determined to ascertain the number of deaths from tuberculous disease registered in the town of St. Helier for a period of five years, and to compare

these results with a similar period of five years taken after a lapse of twenty years.

The death registers for the whole island were not examined, because twenty-five years ago registrations of deaths in many of the country parishes were of a very vague and uncertain character—as, indeed, they are at present. The periods chosen were from 1872 to 1876 inclusive and from 1892 to 1896 inclusive. All the deaths reckoned in this investigation were those tabulated under the following headings: (1) Phthisis and tuberculosis; (2) tuberculous meningitis; (3) tuberculous peritonitis and tabes mesenterica; (4) scrofula. From 1872 to 1876 there were 542 deaths from tuberculous disease, 514 registered as phthisis and tuberculosis, 25 from tuberculous meningitis, 1 from tuberculous peritonitis, and 2 from scrofula. These 542 deaths show a mortality per 1,000 living of 4.2 per annum, and of 182.5 per 1,000 deaths, taking the population of St. Helier as 27,000 during those years in which the mortality in town averaged 22 per 1,000. This shows a death-rate of 4,400 per million living as compared with that of the United Kingdom of 5,764 during the years 1851-60. From 1892 to 1896 inclusive the total deaths from tuberculous disease were 305, made up as follows: (1) Phthisis and tuberculosis, 283; (2) tuberculous meningitis, 17; (3) tuberculous peritonitis, 4; (4) scrofula, 1.

This shows a mortality per 1,000 living of 2.105 per annum, or a reduction of the total number of deaths per annum from tuberculosis of 47. The proportion is 106.57 of 1,000 deaths, or a reduction of 75.9 per 1,000. The total number of deaths from phthisis per million living being 2,103.5 as compared with 4,155 in the United Kingdom during the years 1891-95. These figures are based on the estimate of a population of 29,000 in the town of St. Helier, and a death mortality during these years of 21.2. (The mortality of the whole island from 1892 to 1896 was 19.2 per 1,000.) These latter figures compare most favourably with those of the large towns of the world.

The leading medical men of the island agree in the opinion that phthisis has greatly diminished there, and all are inclined to attribute its rapid decline to better sanitation and improved dietary, and more attention to bodily health and cleanliness, and also in no small degree to the very small amount of bovine tuberculosis in the island. During the five years 1892-96 there were only four deaths registered under the heading of tuberculous peritonitis or tabes mesenterica. This is in itself a very strong proof of the absence of tubercle bacilli in the milk of the island cattle.

With regard to bovine tuberculosis the Subcommittee communicated with the veterinary surgeons and the leading cattle breeders, who unanimously expressed the opinion that there is very little bovine tuberculous disease in the island. Practically all the cattle examined for exportation have successfully passed the tuberculin test. The Society urged that inasmuch as the cattle of the island are at present so free from tuberculous disease as compared with cattle in other countries, it behoves the authorities to take such steps as may diminish or even stamp out entirely the little that may exist. With this object they suggest the application of the tuberculin test to every animal in the island and the destruction of such as show reaction. The question of compensation for the slaughter of infected animals should, they think, be allowed only for a limited period and never exceed a fixed sum, which ought to be provided either by the island or a mutual insurance amongst the farmers. Quite as important is the necessity for a very thorough and complete supervision of the cattle sheds, byres, and dairies, with power to order such improvements as may be necessary.

As regards treatment of human tuberculosis, both actual and preventive, it is pointed out that in Jersey there exist many factors of great importance. First, they have many hours of sunlight, a fairly temperate climate, not liable to great extremes of cold or heat, and many a sheltered nook where the phthisical patient can pass most of his days in the rays of the sun, and the breathing of fresh air which seems to retard the disease and accelerate cure more than any special drug. They add that the freedom of their cows from tuberculosis ensures both healthy and sick against the danger of contamination from the milk supply and should render the island an ideal one for the nurture of young children.

LITERARY NOTES.

MESSRS. LONGMANS AND CO. announce that a fourth edition of the well-known *Manual of Pathology* of the late Professor Coats of Glasgow will be ready for publication in the early autumn. The lamented author himself had made considerable progress in the work of revision before his death, and in compliance with his wish the task of completing the preparation of the new edition has been entrusted to Dr. Lewis R. Sutherland, Senior Assistant to the Professor of Pathology in the University of Glasgow.

Mr. H. K. Lewis has just published Sir Richard Douglas Powell's Lumleian Lectures *On the Principles which Govern Treatment in Diseases and Disorders of the Heart*. The same publisher has in the press a new work on extra-uterine pregnancy by Mr. J. W. Taylor of Birmingham, and one on the exploration of the urethra and bladder by Dr. Maro Tuchmann. Both these works will be abundantly illustrated.

Mr. Redway has ready for issue an edition of the collected works of James Braid, the Manchester surgeon, whose name is well known to all students of hypnotism.

Among the medical journals which came into being with the New Year is *Obstetrics*, which is edited by Dr. Edward A. Ayres, Professor of Obstetrics in the New York Polyclinic Medical School and Hospital, and published by the Van Publishing Company, New York. *Obstetrics* is a companion journal to *Pediatrics*, published by the same company, and will appear monthly.

The British Food Journal has been established, as we gather from some introductory editorial remarks, for the purpose of bringing the power of the press to bear on the remedy of abuses and frauds in regard to the food supply. As the official organ of the International Commission on Adulteration, our new contemporary claims to be possessed of "a necessary and a sufficient authority" to speak with our enemies the adulterators in the gate. The most suitable gate by the way, for these colloquies would be that of one of Her Majesty's prisons. We wish the *British Food Journal* all success in its efforts to establish "a check......on adulteration and fraudulent trading......thoroughly effective and capable of application to immediate public needs."

In a paper reprinted from the *Caledonian Medical Journal*, Dr. H. Cameron Gillies discusses the Gaelic names of diseases and of diseased states. The essay is interesting even to the Sassenach, to whose bewildered eye Gaelic looks like a fortuitous concourse of alphabetical atoms, on account of the side lights thrown by philology on medical folklore. Thus in regard to *Fiabhras*, or fevers, we learn that the Gaelic people were acquainted with typhus fever, which they called *fiabhras dubh*, or "black fever." They had also a "yellow fever," though it is not clear what disease was denoted by that term. Jaundice was common among them, but Dr. Gillies thinks it unlikely that simple jaundice would be classed as a fever. He quotes the report from Tarbat in the Old Statistical Account, which states that

> No diseases are peculiar to the parish from climate or from any other cause. Epidemic distempers find their way here, and we are at the present time suffering from fevers of nervous and putrid kinds. A species of the latter is distinguished by the name of yellow fever, so termed because as soon as the patient expires the body comes of that colour.

Dr. Gillies thinks it probable that the disease here meant was typhoid fever, or perhaps typhus "under its known aspect of bilious fever." He quotes the following opinion of Dr. George Henderson, of Oxford:

> Our climate must have been much warmer 1,200 years ago than it now is, and in Ireland it must have been hot enough for yellow fever, and favourable to epidemics by reason of its large population and insanitary condition.

There are many names in Gaelic for small-pox, which, however, is not distinguished as "small," as the great variety was unknown among the simple Gaels. Small-pox had to be mentioned by some respectful euphemism, such as *bean mhath* or the "good wife," which seems to show that the old women of the Highlands agreed with M. Drumont in regarding the disease as a beneficent agency. The nomenclature of skin diseases—particularly in regard to itch—was, as might be expected, very rich. Such expressions as *a chnuimh-fhiacal*, literally "toothworm," meaning toothache; and *meilechartain*, literally "fleshmites, generally under the toes," signifying chilblains, may perhaps be taken to indicate some glimmering of modern parasitic theories.

THE annual general meeting of the Royal Medical and Chirurgical Society of London will take place on Wednesday next, March 1st, when the Council will nominate Mr. Thomas Bryant as President, Dr. Gee and Mr. Howse as Vice-Presidents, Dr. Thomas Barlow as Honorary Secretary, and Dr. Norman Moore as Honorary Librarian.

INDIAN HOSPITALS AND DISPENSARIES.

INDIAN reports are numerous and bulky, and those relating to medical institutions are no exception to this rule. An effort has been made to reduce them to reasonable proportions by curtailing the figured statements which contribute mainly to their size, and issuing orders that a full report shall only be prepared every fourth year; the tables relating to intervening years being accompanied by brief comments. Considering the extent of India and the number of hospitals and dispensaries which have been opened in each province, it is difficult to see how further abbreviation is possible. The number and class of institutions, the attendance of patients, the diseases treated, the operations performed, the classes, sexes, and ages resorting for relief, the finances, are elementary and essential facts, and some explanations accounting for fluctuations are obviously necessary; and this is the sort of information which these reports furnish. Uniformity is secured by the adoption of the same forms, which have been laid down by the Government of India. The statements relating to surgical operations require further revision to this end. We have received a large number of these reports for the year 1897, which was in many respects a trying one on account of famine, plague, and war; these events seriously disturbed the arrangements connected with the charge and working of these hospitals. There is, necessarily, a great deal of repetition and similarity in figures relating to successive years. In the following abstracts we have endeavoured to present salient features and facts in the fewest possible words:

Bengal (exclusive of the city of Calcutta).—There was an increase of 22 institutions, the number open at the close of the year being 477—1 to 318 square miles and 147,526 persons for the province. There was a substantial increase of attendance, which amounted to 2,834,112 patients, or 4.01 per cent. of the population of the province. The relative number of female patients seeking relief was larger, and it is expected that the proportion will rise still higher when arrangements are made for separate reception, both outdoor and indoor, of this class. A new plan of cottage hospital has been devised for this purpose. The arrangements made for treatment of patients indoor are considerably in excess of the demand. Separate accommodation for pauper and moribund patients is being provided in many hospitals for the purpose of segregating those whose condition may be specially repellent; and the question of making room for the friends of patients, without whose company and attendance many will not remain in hospitals, is being considered. The death-rate among indoor patients rose from 11.64 to 14.68 per cent. This is attributed to the famine, and hospitals admitting pilgrims had specially high rates. There was an increase in the number of cases of malarial fevers, bowel complaints, and cholera treated. The number of surgical operations performed amounted to 135,505, a decided increase on the preceding year. The majority of these were comparatively trivial, but the total contains a fair proportion of really important operations, and the detailed list indicates skill and success: 2,718 extractions of cataractous lenses were done, 254 important amputations, 227 stone operations, 75 scrotal tumours removed, and 15 ovariotomies performed. The accounts are displayed at great length. The money spent on medical relief amounted to Rs.9,30,578, of which Government contributed about one-tenth. The report is submitted by Surgeon-Colonel T. H. Hendley, C.I.E.

North-West Provinces and Oudh.—The report for 1897, which includes all hospitals and dispensaries in the provinces, was compiled by Surgeon-Colonel W. F. Warburton, M.D. There was an increase of five institutions, giving a total of 355 in operation on December 31st—one to 307 square miles, and 134,104 units of population. Notwithstanding famine and fever, the attendance of patients was less than in 1896; the total treated being 3,692,416. The decrease is attributed to the opening of poor houses and relief works hospitals, in which were treated 726,929 persons, the fear excited by plague preventive measures, and the removal for plague, famine, and war duties of so many officers and subordinates whose place was taken by strange and inferior men. The number treated bore a rate of 7.87 per cent. to population, or, including poorhouses, etc., 9.42. The death-rate among indoor patients rose, as might be expected, from 5.93 to 7.92. The indoor accommodation provided more than sufficed for demands. There was an increase in malarial fevers, bowel complaints, venereal diseases, scurvy, debility, anæmia, and goitre. A large quantity of quinine was distributed gratuitously, and the amount sold by vaccinators, post offices, etc., realised Rs.4,115, against Rs.188 in 1896. Reference has already been made in the BRITISH MEDICAL JOURNAL to the excellent and important surgical work done in these hospitals. The total number of operations amounted to 168,534. The attendance of women showed an increase. There are 46 hospitals and dispensaries for females in these provinces officered by women. There are also leper, blind, and poor asylums in 26 districts. The total income of the year from all sources was Rs.6,57,133, and the expenditure Rs.6,32,088. The invested capital amounted on December 31st to very nearly 13 lakhs of rupees, yielding an annual income of Rs.48,561. The financial position of these institutions is therefore sound.

The Punjab.—Surgeon-Colonel D. O'C. Raye, M.D., submits a concise report of all the hospitals and dispensaries in the province for the year 1897. The number of institutions open at the close of the year was 265. Three new dispensaries were opened and 5 closed. There was a small decrease in the attendance of indoor patients and a considerable increase of outdoor cases, the aggregate of both classes treated being 3,293,924, or about 16 per cent. of the population of the province. There was an increase in the number of cases of malarial fever and of eye diseases; bowel complaints were also numerous. The number of cases of natural labour treated was 138. Efforts are being made to extend this line of practice, and improve the means of treating special diseases of women generally. Owing to the famine and plague there was a falling off in the number of surgical operations performed, but they amounted to 173,808, and the list includes 4.671 cataract operations and 1,811 stone cases; of these latter, 289 were removed by cutting with a death-rate of 12.4 per cent., and 1,522 by crushing with a mortality of 3.3. The list exhibits a great variety of important operations, and the work is very creditable to the surgeons in charge of these institutions. The income for the year amounted to Rs. 5,44,990, which more than sufficed to meet the expenses. There are six leper asylums in the province, in which 604 patients were treated at a cost of Rs. 24,369. There is a dispensary for every 410 square miles and 78,131 units of population in the Punjab.

Bombay (exclusive of the city of Bombay).—Surgeon-Major-General G. Bainbridge, M.D., submits a concise and interesting report for 1897. There were 312 institutions open at the close of the year, 2 fewer than at the commencement. There was an increase of indoor and a decrease of patients treated, the total being 1,742,804, against 2,319,346. Bombay has 1 dispensary to 398 square miles and 60,194 units of population. The numbers treated bore a ratio of about 9 per cent. of the population of the province. The decrease of patients was due to the existence of plague, and withdrawal of officers and subordinates for special duties. The death-rate among indoor patients was 14.6 per cent. There was no marked excess of any particular disease or class of diseases, except that 4,194 cases of plague were treated; this was but a fraction of the whole number of cases which occurred during the year in the province, which exceeded 60,000. There was also a diminution in the number of surgical operations performed, owing to the circumstances already specified. Cataract operations are few as compared with other provinces; there were only 166. Stone operations are also few as compared with the North-West Provinces and Punjab; 203 were removed by cutting, with 19 deaths, and 379 by crushing, with 13 deaths. Forty-eight operations for the cure of hernia were performed, with 1 death, and 6 ovariotomies, with 2 deaths; 4 abdominal sections were done without any death, and 40 operations for the removal of guinea worm. The finances of these dispensaries are in a satisfactory state, the income of the year being Rs.6,99 850, of which Government contributed about one-half. The invested capital amounts to Rs.5,85,200. The Local Government does not make any comment on this report.

Madras (exclusive of the town of Madras).—There were 470 institutions open on December 31st, 1 to 297 square miles of area and 75,011 units of population. Famine, plague, and war interfered seriously with administration; but the number of patients treated was larger than in the preceding year, the total being 4,092.551—about 12 per cent. of population. There was an increase in the number of cases treated of malarial fever, dysentery, debility, ulcer, skin disease, and diarrhœa. Cholera was severely prevalent throughout the presidency, and 23,500 cases were treated in hospitals and dispensaries. The death-rate among indoor patients was high—8.04 per cent. Inspection stations were opened for examining passengers with a view to the detection of cases of plague; only 2 occurred. The number of surgical operations performed amounted to 150,766, but this total includes trivial things, such as passing the catheter and giving hypodermic injections. Still a large amount of important and successful surgery was done. There were only 404 lens extractions and 32 stone operations—very small figures as compared with some other provinces. Madras is, however, advanced in respect of arrangements for giving medical aid to women; 290 trained midwives were employed in 21 districts, who attended 20,557 cases of natural labour; 17 pupils are under training for this work. There are 22 hospitals for women and children in the presidency under the charge of qualified females. A substantial amount of obstetric and gynæcological work was also done in the hospitals and dispensaries. There are 12 State hospitals and 4 leper hospitals, 13 private dispensaries, 23 mission hospitals and dispensaries, and 18 railway institutions, in addition to the 470 included in the report. The income for 1897 was Rs. 10,49,605, of which Government contributed onetenth. It sufficed for the expenses of the year. The invested capital is Rs. 3,92,846. The quinine sold in packets through the post-offices realised Rs. 7,877. The report is submitted by Surgeon-Major-General C. Sibthorpe, C.B.

Burmah.—The number of dispensaries underwent an increase of 3—from 96 to 99—during 1897. In addition to these 10 temporary hospitals were opened in connection with famine relief work, and 4 dispensaries are ready for work when the services of medical subordinates can be made available. The withdrawal of men for special work elsewhere crippled dispensary operations in the province considerably. There was a large increase of both indoor and outdoor patients, the total of both classes being 788,560. The death-rate among the former was high—8 per cent. of treated. The accommodation for indoor patients is inadequate in some places, and is being enlarged. Malarial fevers, bowel complaints, eye diseases, skin diseases, worms, and ulcers are the most common causes of admission. Cholera was very prevalent, and 254 cases of leprosy were treated; 19,610 surgical operations of sorts were performed. The income of dispensaries amounted to Rs.4,79,843. A sum of Rs.6,197, representing fines for working cargo in ports on Sunday, was handed over to the hospital. The Lieutenant-Governor complains that in some places all the available funds are not utilised. The report, which is drawn up by Surgeon-Colonel D. Sinclair, M.B., contains particulars of 14 railway dispensaries, in which were treated 28,950 sick, and 83 police hospitals, in which were treated 41,648 patients.

A SCHOOL for children suffering from trachoma was opened in Milan in January. This school, which has been erected at the expense of the municipality is annexed to the Ophthalmic Institute and comprises two rooms, each of which can accommodate fifty pupils. At the present time the total number of children in the school is sixty. When lessons are over the children go to the Institute to be treated, and only after treatment are they allowed to go home.

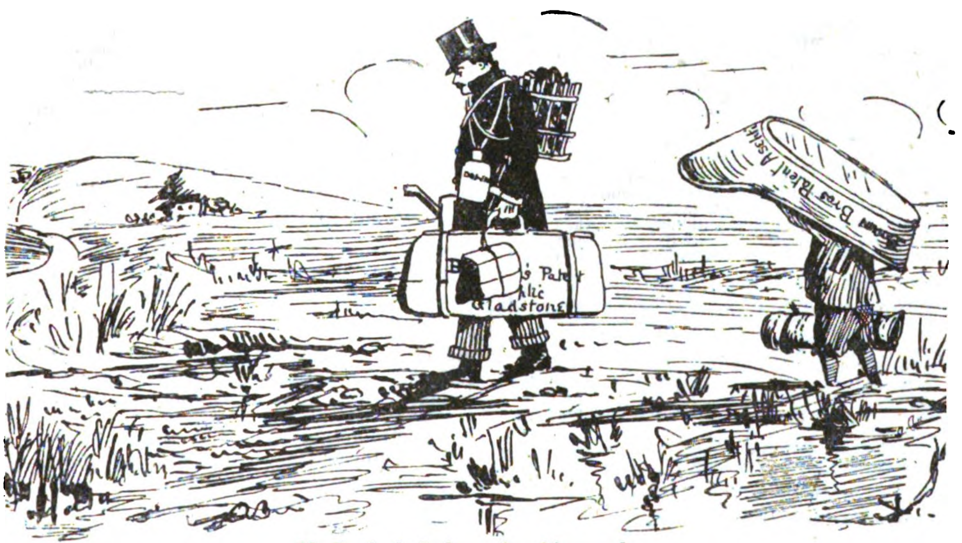
THE NEW VACCINATION ACT IN OPERATION.

THE DUTIES AND TRIALS OF PUBLIC VACCINATORS.

A PUZZLED P.V. writes: As I read again the Amended Regulations, and turn over the various circulars of the instrument makers offering aseptic vaccination cases, I ~~ask myself,~~ Can this be sober reality? I take one circular, and I count up twenty-two articles, each of which is supposed to be necessary for each vaccination. I quote from it, "Without definite instructions from any responsible body, and without any definite knowledge as to the exact requirements of the Local Government Board, etc., etc." The price, close on £3, is said to be kept low "on account of the small remuneration which the public vaccinator will receive on account of his outlay." This case, 14 by 6 by 5 inches, weighs 5 lbs. I then turn to instructions by Drs. R. W. Leftwich, Sinclair White, and P. R. Cooper in the BRITISH MEDICAL JOURNAL of November 12th, 1898, p. 1519, and am still more astonished. A hospital surgeon tells me that to thoroughly sterilise the skin it should be first washed with ether, then with soap and water, and finally with turpentine; but would any baby or mother put up with such treatment? and of what use are half measures? The whole thing is a farce. The Local Government Board are asking what would be easy in an operating theatre, with nurses and attendants, but which is utterly impossible either in country districts or in the slums of towns. And all this for 6s. per successful case, with perhaps a few sixpences thrown in for mileage. Again, I cannot induce the mothers to keep either plaster or bandage on the babies' arms, and as I have taught them for the last thirty years to leave the arms uncovered, they smile when I talk to them of the Amended Regulations.

There is one saving clause: I have found the lymph uniformly good. If it should at any time prove untrustworthy we should indeed be "in evil case." It would be well, in any complaints on this score, that the number of the defective series should be stated.

MR. LOUIS DE REDMOUNT, L.S.A., writes: Having the misfortune to be Public Vaccinator for the Bogland District of the Swampstead Union, I take the liberty of enclosing you a small sketch depicting the benefits conferred upon me by the new Act. I will only explain that the burden on my back is Brown Brothers' patent aseptic coke stove for boiling the water to be afterwards used in the same firm's admirable aseptic bath, drawn as being carried by a boy, to whom, by the way, I have to give 5s. out of the minimum fee allowed me by the Swampstead Guardians. The boy also carries Brown Brothers' carbolised towels for drying purposes, but these are not really required, as it is perhaps more healthy and quite as efficient to run about for ten minutes until dry. The watercan is best made of aluminium, as it is then very light, and only costs £20, or if fitted with Brown Brothers' patent aseptic thermometer £5 extra. My long experience has taught me that, preparatory to operating, the child should be thoroughly disinfected both inside and out. Brown Brothers' patent aseptic Gladstone bag, which I always carry, contains the necessary apparatus for this purpose, including their own aseptic stomach pump and long enema tube. I never operate before first administering an anæsthetic, as this keeps the child quiet, and prevents the arm being accidentally brought into contact with infected material. The whole time occupied in getting to the home of the child, vaccinating it, and returning to my house is hardly ever more than five hours, which I think very reasonable under the circumstances.



Mr. Louis de Redmount on his rounds.

DR. J. P. PURVIS (Public Vaccinator, Greenwich) writes: My equipment consists of a tube of Calvert's carbolic soap, a 1-oz. bottle of formalin solution, 1 in 400 (24 m to Oj), a 1-oz. bottle of boiled distilled water, a 1-oz. bottle with gauze top of powdered boric acid, a box of salicylic wool, a dozen sterilised vaccination pin-points (supplied by the Association for the Supply of Pure Lymph), wrapped in salicylic wool in a box, a blower supplied by the same Association, an empty box for pin-points after using, several half-ounce boxes filled with powdered boric acid, several Hartmann's wood wool vaccination pads, two clean cloths, and last, but not least, a supply of pamphlets, "A Plea for the Children," issued by the Jenner Society. All these are carried in a small bag, with loops at the side to hold the bottles; the bag could easily be carried strapped to the saddle, or the handle-bar of a bicycle.

My mode of proceeding is to get the mother (if possible) and the baby to sit facing the window, I sitting in front of them. One cloth is spread on a table, or other convenient piece of furniture, and the contents of the bag, or such as may be required, spread out on it. The baby is examined especially for cracks behind the ears, in the folds of the groin, or about the anus; the arm is bared, and the other cloth being placed beneath it, is washed (if really dirty) with the soap, using a small piece of the salicylic wool wetted with the sterilised water, then washed over with the formalin solution, and afterwards with the sterilised water, and finally dried with a pledget of the wool. The lymph is then blown on to the arm in four places, a pin-point taken out of the box, dipped in the formalin solution, dried on a piece of the wool, and scratches made through the lymph. These must not be very extensive—a smallish cross is sufficient. The pin-point is then reversed, and the lymph well worked into the scratches with the head by a circular movement first in one direction and then in the opposite. Whilst the arm is drying, the vaccination certificate is filled up, and before it is quite dry boric acid powder is dusted over it; this adheres slightly to the places. A Hartmann's wood-wool pad is then tied over all. A box of boric powder is left, with instructions to the mother to apply some every morning under the pad.

The following week the vesicles are dusted thickly with the powder, a clean pad applied, and instruction left to apply the powder about three times a day. The whole proceeding takes a shorter time to do than it does to write and can easily be completed in ten minutes. Dusting the arm with powdered boric acid I find to be the simplest and best method of treating the arm all through. Painting with flexible collodion is also very good, but necessitates longer waiting for the arm to dry, besides the carrying of two more bottles of collodion and one of methylated spirit to wash the brush.

I have also tried most of the other plans proposed for dressing the arm, such as painting with tr. benz. co., covering the place with "provac," a kind of goldbeat~~ers' skin (th~~is skin gets very dry during the week and shrivels up and rub the vesicles), the application of boric gelatine, the formula given in the BRITISH MEDICAL JOURNAL, November 11th, 1898, is much too moist and sticky. I tried it with half the quantity of glycerine, but even then it was very sticky and the dirt adhered to it and it got washed off with the washing of the baby; in my hands it was not satisfactory. Pads to stick on with plaster either in a ring round the edge or with strips are not so good as those to tie on, as they are messy, the plaster gets on the arm and the dirt sticks.

Taking the pin-points ready sterilised wrapped in antiseptic wool obviates the necessity of carrying elaborate and expensive sterilising apparatus, and saves the time taken up in sterilising at the people's home. After using the pin-points are again sterilised at home before using again.

DR. J. M. FERGUSON (Burnley) writes: There is certainly more to be done by the public vaccinators; but I cannot help thinking that some of your correspondents have interpreted the order of the Local Government Board far too elaborately. I fail to find that you are to use sterilised lint, and plaster the arm up with pads of carbolised gauze, etc.; and as a contrast to "A Public Vaccinator of Twenty-nine Years' Standing," I may state the method of procedure I adopt.

I cleanse the skin, which can be done by means of, say, izal or carbolic soap and warm water, and a clean towel can be got in the house. Then having cleaned and sterilised my scarifer (lancet or needles), I make the three or four punctures or scratches required by the Board. A "blower" is not necessary, as I find the lymph will run from the tubes without blowing. It is therefore only necessary to rub it in with the end of the tube. I instruct the mother to keep the arm uncovered and near the fire till the lymph has dried. This forms a film over the scarified area, and is of itself a protection against extraneous infection. Now to my mind, shields, tight clothing, or anything in the form of dressings applied tightly round the arm are a source of irritation from friction. I therefore advise either that the arm be left perfectly bare, or that a very loose balloon sleeve be attached to the child's dress, which will not interfere with the child's movements, and yet keeps the arm warm. When the vesicles are mature and the scabbing process begins, I apply a paste made of carbolic soap and water (boiled), to which I add some izal. This I paint over the vesicles thickly, and allow to dry. Further, I instruct the mother to apply a paste of carbolised soap every morning, and do not allow any other covering, the loose sleeve being worn till the scabs drop off. This process is much less cumbrous, and quite as effective as that mentioned by your correspondent, and only entails the carrying of a small bottle of paste in addition to the instruments and lymph. I may say that since I adopted this method six months ago, I have not seen an arm where there was an undue amount of inflammation; and that it is satisfactory is proved by the fact that I have in my district some of the most insanitary property in Lancashire, and from which, up till now, a large proportion of the children vaccinated have come.

Since January 1st I have received from the vaccination officer two lists of children born after August, 1898, and several of children born before that time, but not vaccinated, in all 78. Notices to visit were sent to all, and visits have been paid to the houses with this result:

Vaccination Performed.*	Refused or Exempt.	Postponed.	Promise to be Vaccinated Privately.	Removed.
36	19	10	6	7

* Two of these cases did not "take," but have been vaccinated again.

I may say in conclusion that I use every endeavour to prevent friction with my medical brethren. After sending the notice required by law, I call and offer vaccination, and always express myself as satisfied if the parents, preferring their own doctor, will promise to have the child vaccinated by him, provided they will do so at once, or get the vaccination postponed, and I am happy to say that so far I have had no unpleasantness.

General Practitioner writes: Let "Public Vaccinator for 29 Years" leave his saucepans and lamps at home and take with him only his lancet, blower, lymph, some carbolic wool, a half-ounce bottle of rectified spirit, and a yard of ambulance bandage, with safety pin. First, let him saturate some of the wool with some spirit and wash the arm with it: then set the wool on fire and sterilise the lancet in the flame. Then scarify the arm, wipe off the blood, blow the lymph on to the scarifications, and work it well in with the lancet; then place a pad of wool on the arm (he need not wait for it to dry), and finish off with the bandage and pin. He will thus have complied with the Amended Regulations and be able to get away within 15 minutes.

THE LYMPH OF THE NATIONAL VACCINE ESTABLISHMENT.

Dr. J. P. Purvis (Public Vaccinator, Greenwich) writes: I have not yet had a total failure, and I never saw in the whole course of my 29 years' experience as a public vaccinator better and more typical Jennerian vesicles. I find the lymph very potent, and the vesicles nearly double their size from the eighth to the twelfth day, so it is necessary to be cautious and not scarify too freely. The following is a summary of the month's work:

January 3rd to 18th, 50 tubes from calf No. 49: 32 primary vaccinations, 128 vesicles attempted, 123 produced: 29, 4 places; 2, 3 places. 1, 1 place. 21 revaccinations, 84 vesicles attempted, 80 produced: 19, 4 places; 2, 2 places.

January 18th to 23rd, 10 tubes, No. 52: 10 primary vaccinations, 40 vesicles attempted, 34 produced: 5, 4 places; 4, 3 places, 1, 2 places.

January 23rd to 27th, 10 tubes, No. 53: 10 primary vaccinations, 40 vesicles attempted, 40 produced.

January 27th to 31st, 10 tubes, No. 55: 10 primary vaccinations, 40 vesicles attempted, 40 produced.

The partial failures with the second calf are, I think, due to over-caution, in consequence of the violence of some of the earlier vaccinations.

VACCINATION OFFICERS' ASSOCIATION.

At the recent meeting of the Vaccination Officers' Association it was resolved to make it a national organisation, and it will in future be known as the National Vaccination Officers' Association.

AMENDMENT OF THE VACCINATION ACT, 1898.

At a meeting of the West Penrith Medical Society on February 8th Dr. J. B Montgomery, President, in the chair, it was decided to support a resolution passed by the Liverpool Medical Institution recommending the immediate amendment of the Vaccination Act, 1898.

THE ADMINISTRATION OF THE VACCINATION ORDER.

"**Public Tormentor.**"—Article 3, Clause 2, of the Vaccination Order, 1898, expressly states that the fee of 1s. is payable on "the number of children in the lists to be sent by the vaccination officer to the public vaccinator .... together with the number of children not included in such lists but vaccinated by the public vaccinator himself." It is clear, therefore, that if the public vaccinator visits and vaccinates at the request of the parent, and, before the visit of inspection, receives the name of the same child in the vaccination officer's list, the fee of 1s. is only payable once, because it is not payable on the number of visits but on the number of children. Similarly, if the vaccination is postponed time after time by the public vaccinator he gets no further fee except the fee for successful vaccination when he is able to certify its accomplishment. Still further, if the vaccination is unsuccessful he can only claim 1s. in case the child has been included in the official list from the vaccination officer, and however many times he may vaccinate unsuccessfully the fee is never payable in respect of the same child a second time. A question is also asked in respect to the advantage of glycerinated calf lymph over the ordinary form of calf lymph in tubes or on points. The answer to this is to be found in the Milroy Lectures for 1898, by Dr. S. M. Copeman, which were fully reported in the British Medical Journal last year, and which have just been published in a volume (6s.) by Messrs. Macmillan. The question as to the advisability of the public vaccinator putting up a notice in his surgery or waiting-room announcing the changes in the law is one which must be judged on general principles. No reasonable objection can possibly be taken to a carefully-worded notice of the kind.

Inquirer asks: (1) What children is Form H. intended for? (2) What does "sterilise" mean?

*** 1. The official list on Form H. from vaccination officers to public vaccinators deals only with those children just over 4 months old, and must reach the public vaccinator "within three weeks of the child having attained the age of 4 months." A vaccination officer, however, may furnish the public vaccinator with an unofficial list if he pleases, containing the names of older children unaccounted for, and the public vaccinator may visit and offer to vaccinate such children, but cannot claim the visiting fee in such cases unless the child is successfully vaccinated, when he can add it to the fee for successful vaccination.

2. An instrument may be sterilised by dry heat, naked flame, boiling, or antiseptics. The naked flame destroys the temper of steel most rapidly, but this makes little difference to the vaccinating value of the instrument, and does not outweigh the advantages of the method. "The protection of the vaccinated surface against extraneous infection," has been secured by means of various forms of aseptic or antiseptic pads, taffetas, collodion, etc.

The answer to (1) will also give "T. W. S." the information for which he asks.

J. H. S.—Payment of visiting fee in respect of children "whose birth dates between August 12th and August 31st," 1898, is provided by Article 3, Clause (1) (a) "in respect of every child whose birth shall have been registered in his district after the 31st day of August, 1898." This includes children born in the middle of July, six weeks before, and therefore the children born between August 12th and 31st are practically, though not expressly, included in those for whom the fee is payable.

N. B. U.—The Vaccination Order of 1898, Article 5, prescribes that if the payments to be made by the guardians to the public vaccinator have not been agreed upon by the guardians and the public vaccinator before January 1st, 1899, the amount of such payment shall be determined by the Local Government Board. It would appear, therefore, that our correspondent's proper course would be to communicate with the Local Government Board.

In the letter from Mr. G. M. Sharpe, published last week, page 435, the number of tubes mentioned should have been forty, and not four.

INTERNATIONAL CONGRESS OF GYNÆCOLOGY AND OBSTETRICS.

The third session of the International Congress of Gynæcology and Obstetrics will be held at Amsterdam from August 8th to 12th, 1899.

The questions arranged for discussion are as follows:

1. The surgical treatment of fibromyoma.
2. The relative value of antisepsis and improved technique for the actual results in gynæcological surgery.
3. The influence of posture on the form and dimensions of the pelvis.
4. The indication for Cæsarean section compared to that for symphysiotomy, craniotomy, and premature induction of labour.

Among those who have consented to take part in these discussions are Drs. Doyen, Howard Kelly, and Schauta, who will treat the first question; Drs. Bumm, Richelot, and Lawson Tait the second; Drs. Bonnaire, Pinzani, and Walcher the third; and Drs. Leopold, Pinard and Pestalozza the fourth.

The reports with their translations in the official languages will be sent to all the members a month before the opening of the Congress. As regards private communications, preference will be given to those bearing upon the above-mentioned leading questions. Time will also be allowed sufficient for any demonstrations kindly afforded by the members. The official languages are English, French, German, and Italian. The subscription for membership is one guinea. Subscription forms and further particulars may be obtained from the Honorary Secretary for Great Britain and Ireland, Dr. Arthur Giles, 37, Queen Anne Street, London, W.

University of Moscow.—The total number of students in the University of Moscow at the beginning of the present year was 4,407. Of these 1,284 belonged to the medical faculty.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1899.

SUBSCRIPTIONS to the Association for 1899 became due on January 1st, 1899. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, FEBRUARY 25TH, 1899.

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THE TREATMENT OF INCIPIENT INSANITY.

A DEPUTATION representing the British Medical and the Medico-Psychological Associations had an interview with the Lord Chancellor on February 22nd, to lay before him a draft clause to provide for the temporary care of persons suffering from incipient and unconfirmed mental disease. The deputation, which was introduced by Dr. Farquharson, M.P., had a most sympathetic reception from the Earl of Halsbury, who expressed great interest in the proposals made to him. These have been formulated by a joint Committee of the two Associations, and are designed to assimilate the provisions of the English law to those which have been for thirty years in force in Scotland. Experience has proved them to work advantageously, and the clause suggested for England[1] would provide that a person certified by a medical practitioner to be suffering from mental disease which is not confirmed might, as in Scotland, be placed under care for a period not exceeding six months in a private home, due notice being given to the Commissioners in Lunacy, who would have the right to visit the patient. The advantage of this would be that a person might be placed under suitable medical treatment in the very earliest stage of his malady, and before it would be under the existing law possible to certify him. It it is believed that under suitable treatment complete recovery might take place in many such cases which now drift into confirmed insanity. A certificate given under the proposed clause would be a very different thing from a certificate in lunacy, and the disabilities which attach to the latter would be avoided. The new regulations suggested would, moreover, tend to obviate the objections of friends to the institution of treatment at an early stage, since the individual would be considered to be a person suffering from a disease susceptible of cure. The well-known risk to medical practitioners in signing certificates of lunacy in early conditions, in which there may be some room for doubt, would also be diminished, as the certificate given would be only an expression of opinion that the patient required a special line of treatment, the duty of taking action being left to the relatives. The position of the person receiving the patient would be safeguarded by a provision making Section CCCXV of the Lunacy Act, 1890, inapplicable to such patients.

The views of the Committee were expressed by its chairman (Dr. Rayner), by Dr. Blandford, and by Dr. Savage who dwelt upon the advantages which might be expected to flow from any alteration in the law that would have the effect of bringing cases of incipient unsoundness of mind early under medical treatment. It was pointed out that the clause would at the same time tend to diminish the temptation to evade the law to which friends anxious to save their relatives from the stigma which, rightly or wrongly, attaches to certification as a lunatic are, to the great detriment of the patient, apt to succumb.

The Lord Chancellor, in his observations to the deputation, showed that he fully appreciated the importance of facilitating the early treatment of cases of mental disorders, and was understood to express himself as being in general accord with the principle involved. He left the impression that he was not indisposed to initiate legislation in the direction desired, though he took exception to the period mentioned—six months—as being too long. It was clear, from the general tone of the Lord Chancellor's observations, that he attached much importance to the representations made to him. There is, therefore, reason to hope that a distinct step has been taken towards the removal of many of the practical difficulties which now attend the treatment of incipient cases of mental disease, and the British Medical and the Medico-Psychological Associations are to be congratulated on the success which has already attended their united action.

THE ENDOWMENT OF MEDICAL EDUCATION.

THE great medical schools occupy a similar position in regard to medical science to that of the universities in regard to the arts and the other sciences. They perform two principal functions, the dissemination of knowledge by teaching, and the advancement of knowledge by research —functions which have been recognised and, as far as possible, carried out by the medical schools from the time at which they were first founded. In the past no great difficulties arose in the performance of these functions. Teaching was limited to anatomy and clinical study; research to observations in the *post-mortem* room and at the bedside. The fees paid by the students and the money allotted from the hospital funds for work common to the school and the hospital were sufficient to remunerate the teachers and to provide for incidental expenses.

But of late years great changes have taken place in the requirements both for teaching and for research. The student is now instructed in chemistry, physics, biology, physiology, bacteriology, and other special subjects, in addition to the subjects previously taught. For instruction in these subjects funds are required adequate to remunerate lecturers whose sole income is derived from teaching. Moreover, expensive apparatus and well-equipped laboratories are necessary, not only for teaching these subjects, but also for research, which has now extended far beyond mere clinical and *post-mortem* observations.

The medical schools abroad are supported by the State, or at least receive large subsidies from it, while in England the funds are derived almost entirely from the fees of the students.

The inadequacy of the income derived from this source to carry out the functions of medical education and research was recognised in a report of a Committee of the Medical School of Guy's Hospital, in which the subject was brought before the notice of the Governors of the hospital. The latter body almost immediately started a fund for the purposes of the medical school, quite separate from that devoted to the purposes of the hospital; and Mr. Balfour brought the matter before the notice of the public when distributing the prizes to the students. In response to his appeal donations to the fund were soon made, and have been noticed in our pages. It is now announced that Sir Frederick Wills has generously given £5,000 for the purposes of the medical school. We believe that the particular purposes to which this gift will be applied are still under consideration, but we understand it will be utilised either for the erection of laboratories, the endowment of a lectureship, or for the purposes of research. The enlightened action of Sir Frederick Wills is deserving of the highest commendation. By advancing and disseminating medical knowledge such donors confer the greatest possible benefit upon humanity.

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[1] The proposed draft clause and certificate are printed at page 501.

THE CEREBROSPINAL FLUID IN THE HUMAN SUBJECT.

THE old physicians called a cold *purgamentum cerebri*, as they fancied that the discharge from the inflamed Schneiderian membrane came from the brain. At a later day the superior person naturally smiled at this simple theory, and pitied the ignorance of anatomy and pathology which it displayed. We are gradually finding out, however, that our predecessors were not by any means such poor benighted creatures as some in their haste have said they were. Quite lately Dr. StClair Thomson has been able to prove that something of the nature of a *purgamentum cerebri* does actually occur, or, at any rate, that fluid may run away from the neighbourhood of the brain through the nose. The event is of the rarest; still he shows cause for believing that it is perhaps not quite so rare as it might seem to be, examples of the occurrence having been reported under names which hid its true nature. For some time past he has had under observation a patient suffering from a continuous dripping from the nose. The clinical details of the case are reserved for future publication; in the meantime it is sufficient to state that Dr. StClair Thomson came to the conclusion that the fluid was cerebrospinal in origin. Regarding this as a unique opportunity of studying the chemical composition and physiological properties of the fluid, he called Professor Halliburton and Dr. Leonard Hill into council. The result is a conjoint paper entitled Observations on the Cerebrospinal Fluid in the Human Subject, which was read at the last meeting of the Royal Society (on February 16th), where it excited great interest.

Since 1842, when Majendie published his *Recherches sur le Liquide Céphalo-Rachidien*, in which he placed beyond doubt the normal existence of cerebrospinal fluid, little was added to our knowledge of this liquid until the comparatively recent work of Halliburton.[1] It is very probable that further study of the subject has been impeded by the difficulty of obtaining fluid from the human subject, or at least fluid that might be regarded as fairly normal. Majendie drew his conclusions from observations on animals, or on the human cadaver. Later observations have necessarily been limited to chemical researches made on the fluid obtained from cases of spina bifida or hydrocephalus, where, of course, the fluid was not secreted under anything like normal physiological conditions. Dr. StClair Thomson's case gave Professor Halliburton ample opportunities of examining the fluid in its normal state, and his researches have resulted in establishing what may fairly be looked upon as a standard composition of this fluid. It is found to be clear and colourless, like water; of low specific gravity (about 1005); containing a trace of proteid (a globulin) but no albumen; and showing no cells or other elements under the microscope. The fluid reduces Fehling's solution, but this "mysterious reducing body"—as Professor Michael Foster called it—is not sugar, for it does not ferment with yeast. Possibly it is a substance related to pyrocatechin.

The rate of the flow was next investigated, and it was found, as might be expected, that this varied considerably with different circumstances, but that it might be 20 to 30 minims in 5 minutes and amount to as much as half a litre in the day.

Bearing in mind some researches of Cavazzani on the cerebrospinal fluid of dogs, Professor Halliburton and Dr. StClair Thomson next compared the composition of the fluid in the morning with that secreted in the evening The latter was found to be slightly poorer in solids, both organic and inorganic. This is what might be expected, as the decreased capillary pressure during sleep would lessen the rate of exudation of water.

Dr. Leonard Hill in his recent lectures at the College of Surgeons on the cerebral circulation, put forward the view that the rate of secretion of the cerebrospinal fluid when the cranio-vertebral cavity is opened depends directly on the difference between the pressure of the cerebral capillaries and that of the atmosphere. At the same time it was shown that the cerebral capillary pressure varies directly and absolutely with vena cava pressure. Thus the cerebral capillary pressure can be raised with great ease by any agency which brings about a rise of pressure in the vena cava or cerebral veins. On the other hand, cerebral capillary pressure varies directly, but only proportionately, with aortic pressure, for between the aorta and capillaries there lies the peripheral resistance. From these facts it follows that the easiest methods of raising the cerebral capillary pressure in man are: (*a*) By compression of the abdomen; (*b*) by the assumption of the horizontal posture; and (*c*) by straining or forced expiratory effort with the glottis closed. By all these methods the vena cava pressure is considerably raised; and by the last method the venous inlets into the thorax may be completely blocked and the pressure in the cerebral capillaries raised to something like aortic pressure. Dr. StClair Thomson's patient afforded Dr. Leonard Hill an opportunity of testing the correctness of his views on the human subject, and the experiments which they carried out together resulted in an entire confirmation of those views. The flow of cerebrospinal fluid was found to be accelerated by all the factors which raise the cerebral capillary pressure. Professor Halliburton's analysis of the fluid expelled under the varying conditions showed that the increase of flow is, moreover, accompanied by a decrease in the percentage of solid matter; the fluid passed passively contained 1.1 per cent. of total solids, while that passed during straining was found to contain 0.43 per cent.

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[1] *Chemical Physiology and Pathology*, London, 1891.

Lastly, the effect on blood pressure of the intravascular injection of the fluid was tested. Quantities varying from 7 to 10 c.cm. were injected into the circulation in dogs, but with entirely negative results. This observation is very interesting in view of the fact that such a quantity in the case of fluid from a general paralytic has been found by Drs. Halliburton and Mott to be quite sufficient to cause a marked fall of arterial pressure. The cerebrospinal fluid, however, removed in cases of brain atrophy contains a toxic substance, cholin, doubtless derived from the disintegration of lecithin in the brain. The normal cerebrospinal fluid contains no trace of cholin.

This interesting communication to the Royal Society has therefore added considerably to our knowledge of the rate of flow of cerebrospinal fluid; the difference of its composition at different times of the day; the influence of straining, posture, and abdominal pressure on the flow and composition of the fluid; and the effect of intravenous injection of the fluid in animals. It is of particular value since it is the result of observations with human cerebrospinal fluid in apparently a normal condition, and the interest which it aroused was shown by the suggestions offered that it would be important to determine the effect on the character of the liquid produced by intellectual labour and the administration of easily eliminated drugs.

Meantime, Dr. StClair Thomson is to be congratulated on his detection of the case, and on the scientific enthusiasm which prompted him to obtain the co-operation of two such experts in their special departments as Professor Halliburton and Dr. Leonard Hill. Their joint work has resulted in establishing the chemical composition of fresh, normal human cerebrospinal fluid, and in elucidating several questions connected with its secretion and with the cerebral circulation.

MR. CHAPLIN'S LITTLE BILL.

It is well to be thankful for small mercies. In this spirit, we suppose, will be received the Government proposals for preventing water famines in London. If a patient has a serious malady which may necessitate a capital operation for its cure, he might nevertheless feel grateful to the surgeon for opening a whitlow, or to the chiropodist for paring a corn, pending a decision on the character and advisability of the major operation. It is, perhaps, in this spirit that we must regard the modest measure which the President of the Local Government Board obtained on Monday night leave to introduce into the House of Commons. London is supplied by eight water companies, each with a limited right of appropriating supplies, and each limited to certain areas within which it can claim a monopoly of distribution. We set before our readers quite recently, in connection with the interim report of the Royal Commission, what some of these limitations were, especially what rights certain companies had of withdrawing water from the Thames itself. One right is zealously guarded by the statute—the right of monopolising the sale of water within the allotted district. So zealously has this monopoly of sale been guarded, that a company has not the right of extending its mains into the district of another company even when the latter is in difficulty—has not even the right of selling to a neighbouring company a portion of its surplus supply.

The recent East End water famine has placed the inconvenience of these disabilities in a strong light, and has emphasised the necessity for some change. The minimum of change, which will for a few years tide London over such difficulties as occurred last autumn, has been embodied in Mr. Chaplin's little Bill. It will provide that the several companies shall submit, when called upon to do so, schemes to the Local Government Board for connecting their various supplies in such a way as to be mutually helpful in times of distress. The cost of the necessary works will be distributed proportionately to income, and the payment for water transferred will be settled by agreement, or, in default, by arbitration. The Local Government Board is to have a sort of centralising or co-ordinating control.

The work of laying down pipes to make the necessary connections has already been commenced by some of the water companies in the expectation that the Bill will pass through Parliament this session, and there seem to be no good grounds for opposing a Bill which will merely remove an artificial obstruction to the distribution of water to districts which may be short of that necessary commodity. But the Bill cannot be accepted as in any way relieving the Government and the Legislature from the duty of dealing with the larger question at an early date. The Bill is, and indeed pretends to be, nothing more than a palliative: it provides no fresh supply, it provides no increased storage, it provides no single responsible controlling water authority for the metropolis. Nearly every important town in England controls its own water supply. The greatest of all is at the mercy of profit-making companies. The Bill makes these things neither better nor worse. It is a temporary measure and a temporising one. It will alleviate but not cure the disease which it proposes to treat.

THE PROPOSED MEDICAL ACTS AMENDMENT BILL.

The Royal College of Physicians of Ireland having had under reconsideration the two-clause Bill to amend the Medical Acts, drafted at the instance of the General Medical Council, has suggested to the Council to substitute for Clause 2 of the Draft Bill a clause enabling such of the Universities and other licensing bodies as do not at present possess disciplinary powers over their graduates or licentiates to exercise such powers in the future. We understand that the Society of Apothecaries of London, while approving of the objects for which the Draft Bill has been prepared, has felt unable to give its support to the Bill, as at present drawn, on the grounds that the language employed leaves it open to grave doubt whether disqualification, however temporary, does not involve re-examination as a condition of restoration to the *Register*, and further, that it is considered to be clear that unless the Bill extends to amending Section IV of the Apothecaries Act Amendment Act, 1874, the proposed clauses will be practically inoperative as regards the Society. We are informed that the Faculty of Physicians and Surgeons of Glasgow has intimated to the President of the General Medical Council that it approves of both of the clauses proposed for the amendment of the Medical Acts by the General Medical Council.

SCOTTISH POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

THE report presented to the recent annual meeting of the Scottish Poor-law Medical Officers' Association refers to the fact that the Bill introduced into the House of Commons last year by Mr. Alexander Cross, to amend the Local Government (Scotland) Act, 1894, was blocked, so that it was impossible to obtain a second reading. The report expresses acknowledgments to the British Medical Association for assistance given in various directions. Since this report was drawn up, however, matters have gone a little further, and at the last meeting of the Parliamentary Bills Committee of the British Medical Association, the Chairman was able to report that he had had an interview with Lord Balfour of Burleigh, who was prepared to give an amending Bill careful if not sympathetic consideration. The Committee resolved to ask Mr. Alexander Cross to introduce an amending Bill into the House of Commons, and requested Dr. Farquharson to sign a petition to Lord Balfour on behalf of the Committee. The Bill proposes that there should be a right of appeal to the Scottish Local Government Board in cases of dismissal of medical officers by district parish councils; that in fact Poor-law medical officers in Scotland shall be removable from office only by or with the consent of their Local Government Board, as is already the case both in England and in Ireland. It is difficult to see why the Secretary of State for Scotland should not be ready to give sympathetic consideration to the amending Bill and to show his sympathy practically by affording facilities for its second reading. We cannot help thinking that if the matter were rightly brought under the notice of Scottish members of Parliament by their constituents, the justice and reasonableness of the proposal would command their support. The Committee of the Scottish Poor-law Association requests that a statement of every case of unjust dismissal by parish councils should be forwarded to the Secretary, Dr. W. L. Muir, 1, Seton Terrace, Dennistoun, Glasgow. The other officers elected at the annual meeting were:—*Honorary President:* Mr. Robert Brand, J.P., Chairman of Glasgow Parish Council. *Honorary Vice-President:* Mr. Alexander Cross, M.P. *Chairman:* Dr. Gilbert Campbell. *Treasurer*, Dr. Mathew Martin, 138, Great Eastern Road, Glasgow.

"SMALL-POX IN A NEW LIGHT."

UNDER this heading we recently ventured to make some comments on a remarkable theory of small-pox propounded by M. Drumont, who professes to regard that disease as a means adopted by Nature to rid the body of the "evil principles" which are in it. We find that we were in error in attributing the invention of this theory to the editor of the *Libre Parole*. Dr. A. Cordes, of Geneva, has called our attention to the fact that some sixty years ago a French physician, Dr. Verdé de l'Isle, enunciated the doctrine that typhoid fever is nothing else than small-pox driven inwards and settling itself in Peyer's patches. But M. Drumont is entitled to the credit of having worked out the theory in exquisite detail. We were careful to point out that he is not to be numbered among the common "antivacks," because his charge against Jenner is that by ridding the world of small-pox he robbed mankind of a powerful prophylactic against other diseases. But the antivaccinists appear to think that anything will serve as a weapon against Jenner—even though, like a boomerang, it come back on their own heads. We have been favoured with a letter from one of the tribe, who appears to have been greatly excited by our innocent paragraph. He states his belief that M. Drumont's views are "radically sound," and he accuses us of blinding ourselves to his obvious meaning—namely, "that the vital powers of the body ever made for health and ever will unless poisoned, paralysed, and damned (we hope the recording angel will put this down not to our score but to that of our correspondent) more or less by vaccine virus or some equally suppressive and therefore fallacious method of 'healing.'" The writer (whose name we mercifully withhold) goes on to explain that "if M. Drumont's 'flowering, blowing, and sublime crisis' is not falsely interfered with, the natural result is a complete rejuvenation, so to speak, seeing that by the expulsion and surface deposit of the 'caustic matter' of small-pox are carried away those foul 'foreign matters,' which, if driven within by vaccine virus, are certain to develop sooner or later, barring the patient's sudden death from 'heart disease,' into the dreaded cancer or equally dreaded phthisis." The moral of all which appears to be that small-pox is your true Pentacle of Rejuvenescence, and that by "falsely interfering" with this elixir of life death was brought into the world. But did people never die before vaccine virus was invented to "poison, paralyse, and damn" their vital powers? And even in these degenerate days, when the baleful shadow of Jenner is over us all, do all vaccinated persons who are not carried off suddenly by heart disease, fall victims to cancer or phthisis? The saner opponents of vaccination will doubtless, on reading the rubbish which we have quoted, be inclined to say, *Non tali auxilio nec defensoribus istis!* But we submit to them that in M. Drumont's theory they will find a more logical basis for their position than they have yet been able to establish. If small-pox be the best preservative of health, they are clearly justified in their efforts to keep it among us, and to diffuse its benefits as widely as possible.

TUBERCULOSIS IN MILK.

THE new Order which Mr. Chaplin has promised shortly to issue, extending the definition of "disease" in the Dairies, Cowsheds, and Milkshops Order of 1885, so as to include, in the case of a cow, such disease of the udder as shall be certified by a veterinary surgeon to be tuberculous, will undoubtedly go a long way towards diminishing the risk that now attends the use of milk from herds of cows which have not been proved by the tuberculin test to be free from tuberculosis. Theoretically, indeed, it might be held that it would go far enough, but there is reason to fear that in practice this will not be case. It is true that the risk of infection of milk by tuberculosis even if the disease be in an advanced stage is small, unless the udder is affected, but in a cow suffering from the disease in a well-developed form the udder may become affected at any moment, and it is certain that under ordinary circumstances some weeks, or even a longer time, might elapse before the fact that the disease had extended to the udder could be ascertained. A tuberculous cow may go on yielding milk even after the disease has become very extensive and has produced much emaciation; indeed, such a cow may yield quite an unusual quantity of milk. An illustration of this is afforded by a story which is told of a distinguished veterinary authority. He wished, in connection with some investigations of the disease, to obtain a cow in a very advanced stage; he asked a dealer to try to obtain one, and the man replied that he thought he could do so at once, as a certain dairy farmer of his acquaintance had a cow so ill with "tubercollisis" that he would probably be glad to get rid of it for nothing. The dealer was told not to haggle about the price, but he came back in a few days to say that he had been unable to obtain the cow; it had rallied a little, and the farmer said that it ate so little and gave so much milk that he would not part with it at any price! This is a rather gruesome story, but it reveals an attitude of the bucolic mind which is probably not very uncommon. If the scope of the promised Order could be so far enlarged as to embrace cases such as these, it would undoubtedly tend still further to diminish the risk of infection. We understand that the National Association for the Prevention of Consumption and other forms of Tuberculosis may not improbably take an early opportunity of calling the attention of the President of the Local Government Board to this point.

INFLUENZA.

ALTHOUGH the mortality last week from diseases of the respiratory organs in London showed a decline from that recorded in the preceding week, and was below the average, the fatal cases of influenza showed a marked increase. The deaths directly attributed to this disease, which had been 22 and 50 in the two preceding weeks, further rose to 74 during the week ending February 18th, and exceeded the number recorded in any week since February, 1898. Of these 74 deaths, only 15 were of persons under 40 years of age; 22 were of persons aged between 40 and 60 years; while 37, or precisely one-half, were of persons aged upwards of 60 years. There was a marked increase last week in the fatal prevalence of influenza in West London, especially in Paddington, Hammersmith, and Chelsea; in South London, where the disease is proportionally more fatal than in any other part of the metropolis, the largest number of deaths directly referred to influenza were recorded in Lambeth, Battersea, Wandsworth, and Greenwich. The scourge is also heard of as having visited Bournemouth and other places in England. In the West of Scotland, and in Glasgow particularly, it is said to be widespread. In Vienna the disease is raging: there is hardly a family which has been spared, and all the hospitals are overcrowded. The disease there is mainly of the catarrhal type, the most common complications being pneumonia and otitis, the latter being particularly frequent.

THE QUEEN'S VISIT TO CIMIEZ.

WE understand that all the arrangements made for the Queen's comfort at the Hotel Regina, Cimiez, were found to work so satisfactorily last year that it has not been necessary to make any modification either in the house itself or in its sanitary arrangements. A limited outbreak of typhoid fever, which occurred in Nice last autumn, ceased after a short time, but it served to call attention to the necessity of recasting the drainage system of the town. A strong Commission was appointed, and as the result of its labours during the winter it is probable that the necessary engineering works will be commenced as soon as the season is over. The defects discovered in the drainage of the town, however, do not affect Cimiez, which stands isolated on its own hill. The weather during the winter, though, like that of the rest of Europe, rather broken by the series of storms that have traversed the Continent, has on the whole been good, and the thermometric range has been unusally high.

INFLUENZA LITERATURE.

ONCE again we are threatened with the influenza, that too familiar foe which we began by despising, and which we now perhaps look upon with somewhat unreasonable dread. It is certainly better to treat it too seriously than too lightly, but only those who have been severely hit by the scourge will deny that it has certain compensations. The average sensual man, indeed, who resents the humiliation of being prostrated by a thing which has about it so little of the pride and circumstance of illness, is apt to fret and fume at his confinement. But the enforced rest not seldom brings increased vigour later, while it gives an opportunity of indulgence in light literature with an unracked conscience such as is afforded by no other kind of disablement, unless it be a broken leg. Here the question arises, What kind of literature is best adapted for the victims of influenza? The idiosyncrasy of the patient must, of course, count for much in the solution of the problem, but there appear to be some general principles which may guide us in the selection of literature appropriate to the disease. The novel naturally presents itself to the mind as the class most likely to fulfil the indications in the general run of cases, and it is interesting to recall that the *New York Times* about a year ago stated that influenza is the only disease that promotes the sale of works of fiction. But what is one man's meat is another man's poison—which for our present purpose may be taken to mean that there be those to whom Meredith gives a headache and others who heave the gorge at Sarah Grand. Our own experience would lead us to recommend Scott, Dickens, and Thackeray, but we are painfully aware that this lays us open to the charge of fogeyism. A recent writer in the *Daily Chronicle* quotes Mr. Birrell as saying that for invalids there are no books like those of George Borrow. "Lassitude and Langour (says the author of *Obiter Dicta*), horrid hags, simply pick up their trailing skirts and scuttle out of any room into which he enters; they cannot abide him." Unfortunately some readers cannot abide him either; the writer in the *Chronicle*, for instance, found that Borrow sent up his temperature two degrees. Balzac bored him, as we can readily believe, for the author of the *Comédie Humaine* is not light reading even when one is in robust health. He tried successively Peacock, Jane Austen, Bagehot, but none of them answered. Even Casanova failed. Some relief was got from the Micawber parts of *David Copperfield*. After much experimentation he came to the conclusion that Mr. Birrell himself is the best author for influenza, because he is quiet and "free from the sickly disease (one would like by the way to have the writer's notion of a healthy disease) of *literaturitis*." On medical principles we should not be inclined to recommend theological literature of an inflammatory character. The mildly sentimental kind might be useful as a sedative, but—speaking, be it observed, from the purely medical point of view—we think that, at least in cases of not more than ordinary severity, Dame Quickly's advice to Falstaff, not to trouble himself about such thoughts yet, is therapeutically sound. On the whole, we incline to the belief that the majority of unregenerate mankind would find even a scrofulous French novel more beneficial to their bodily estate than a tuberculous tract. But here also there must be discrimination in the selection of an author. In a case of influenza of the gastro-intestinal type there would be a risk of serious aggravation of the symptoms if the patient were to allow himself large doses of undiluted Zola. The *Sorrows of Satan*, the *Murder of Delicia*, and other works likely to stimulate the flow of the tear of sensibility are not to be recommended in cases of the catarrhal type, and Young's *Night Thoughts* or the *Proceedings of the Society of Psychical Research* are distinctly contraindicated in the nervous form of the disease. On the whole, the only general rule that can be laid down for the selection of literature in influenza is that given by Lord Bacon for the choice of diet. Let a man read whatever he finds good of, and avoid whatever he finds hurt of. In other words, let him follow his taste—which he will doubtless do in any case.

A VACCINATION CASE.

CERTAIN proceedings at Huddersfield, reported in the *Leeds Mercury*, indicate the desperate anxiety of antivaccinationists to discover anything which may be twisted into an allegation of evil results from the use of the Local Government Board's glycerinated lymph. A child, Marion Beckwith, aged 5 months, was vaccinated on Thursday, February 2nd, and died on the Sunday morning immediately following. Lieutenant-General Phelps, President of the Antivaccination League, was present at the inquest. The father told the court that after the death of the child he was approached by representatives of the League, who offered to take up the case and represent him at the inquiry. They first asked him if he thought the infant had died from vaccination, to which he replied in the affirmative, whereupon they asked to see the body. The public vaccinator stated that he made a *post-mortem* examination, and that in his opinion the cause of death was double pneumonia at an early stage. Dr. Irving corroborated. Sixteen other children had been vaccinated from the same lymph. One juryman said he had seen the body, and that its appearance was altogether different from many others he had viewed, and that from his own knowledge he thought vaccination had something to do with the death. The jury, however, after hearing the evidence, returned a verdict of death from natural causes. That such a case as this should have been taken up by the League shows the straits to which it is reduced in its efforts to discredit vaccination. We should not, indeed, be surprised if it turns out that the League has decided to adopt regularly the *post hoc propter hoc* argument, and to contend that deaths following vaccination are due to vaccination. If it only persists in taking up cases such as that just referred to the extravagance of its attitude ought to be a sufficient antidote to the poison with which it seeks to inflame the public imagination.

MEMORIAL TO THE LATE PRINCIPAL CAIRD.

THE proposal to erect a memorial to Principal Caird has now taken definite shape. The intention is to put up a window on the east side of the Bute Hall of Glasgow University. The design will consist of twelve figures arranged as follows: First row—Plato, Aristotle, Spinoza, Hegel; second row—Athanasius, Chrysostom, Augustine, Aquinas; third row (below gallery), symbolic figures representing Philosophia, Jurisprudentia, Medicinia, Theologia. This selection appears to be particularly happy, as those members of the Association who remember the admirable philosophic sermon which Principal Caird preached to the Association on the occasion of the last meeting at Glasgow, will readily agree. The subscriptions received from old students of the University and other friends have come from many parts of the world (Newfoundland, Canada, South Africa, British East Africa, and the Argentine Republic), and now amount to £731 11s. The sum of £100 has been raised by a class collection made by the students of the present session. The total cost of the window is estimated to be fully £900, so that further subscriptions are desired, and should be sent to Mr. Archibald Craig, 156. Vincent Street, Glasgow.

THE GOLDSMITHS COMPANY'S GIFT TO MEDICAL RESEARCH.

AT a recent meeting of the Court of the Goldsmiths Company, Sir Walter S. Prideaux submitted to the Court a report with reference to the antitoxin treatment of diphtheria, in connection with which a grant of £1,000 had been made to the laboratories of the Royal Colleges of Physicians and Surgeons, for the purpose of aiding in the work of improving the quality of antitoxic serum and of making investigation into the action and composition of antidiphtherial serum. The report points out that Dr. Martin's work done in connection with this grant "had been generally of scientific and pathological interest;" that he had shown the way in which antitoxic serum antagonises the chemical poisons produced by the disease, and that "by demonstrating the harmlessness of this serum to the animal which receives it he had helped to put the knowledge of and confidence in the new method of treatment on a firm footing." Dr. Wood's work carried out under the grant was also of great pathological interest, and "had been directly and immediately valuable" in connection with the treatment of diphtheria. It is pointed out in this report that one of the most important practical difficulties in the employment of antitoxic serum was the long period necessary for its production and the comparatively low potency of the serum. "This period, through Dr. Wood's investigations, was reduced from months to weeks," whilst it also became "possible to supply serum of greatly augmented strength," thus rendering it possible to use much smaller doses. Dr. Brodie's experiments on the chemical nature of antitoxic serum are also referred to, whilst it is pointed out that under the grant considerable quantities of antitoxic serum have been supplied for the use of the poor in London in fifteen general and children's hospitals. Finally, it is reported "that the object to which the grant has been devoted is twofold: (1) To improve the efficiency, safety, and practical adaptability of the antitoxic serum, which is the only remedy at present known to meet the dangers of diphtheria, and (2) to supply the best possible serum which could be produced for the gratuitous treatment of poor patients." The Committee under whom the work has been done "has been fortunate in being able to obtain the services of gentlemen of the highest skill and experience in these elaborate investigations, to whom grants have been from time to time voted, which must be regarded as honoraria rather than recompense for time, labour, and skill expended," whilst serum of great strength and purity has been supplied to the various hospitals for children in London and for the treatment of urgent cases of diphtheria among the poorer classes. The Goldsmiths Company has further proved its liberality and farsightedness by making a further grant of £500 for the purpose of carrying on research in connection with the serum treatment of other diseases and of maintaining the supply of diphtheria antitoxin for the use of poorer patients. There can be no doubt that under this grant much has been done to improve the antitoxic serum treatment in this country, and we hope that still further light may be thrown on this complicated question by those investigators who at present are engaged in solving some of the difficult problems connected with the production, composition, and action of antitoxins.

THE OPERATIVE TREATMENT OF BALDNESS.

DR. MENAHEM HODARA, of Constantinople, has recently presented the world with that rarest of all gifts, a new idea. Having had two cases of favus under treatment, he was not satisfied with curing the disease, but made a bold attempt to remedy the baldness resulting therefrom. Briefly stated, his plan was to scarify the bare surface and to implant thereon hairs removed from other parts of the patient's head. The hairs used for the purpose were trimmed with scissors at each end. Some four weeks after implantation a certain number of the hairs were found to have taken root, and in no long time a goodly new crop was produced. Encouraged by these results, Dr. Hodara has since applied the method in other cases of baldness following favus, and he thinks himself justified in stating that "clinically there can be no doubt as to this very curious fact—that small bundles of hair stems cut with scissors and implanted in the incisions made with the scarifier can take root and grow, forming in time long and viable hairs." By microscopic examination he has satisfied himself that after some weeks a real new bulb forms at the lower end of the implanted hair. Dr. Hodara's results are interesting in themselves, and still more in the promise which they appear to offer of further results, undreamed of, or at any rate unmentioned, by the ingenious author. Why should not the same treatment be applied in cases of ordinary baldness? Many bald men would gladly submit to have their scalps ploughed and afterwards sown with new hairs if there was a reasonable hope of even a moderate harvest. This new system of capilliculture opens out still larger possibilities. Dr. Hodara takes the hairs which he plants into the furrows made by his scarifier from the patient's own head. But alas! there are unfortunates whose denuded polls could not supply even the few stray hairs required. There appears to be no reason why in such cases the necessary material could not be got from someone with whom Nature has dealt in less stepmotherly fashion in the matter of hair. Again, the new method seems to be likely to make hair dyes superfluous. In the scarifier elderly persons will have a means of repairing the "irreparable outrage" of years, and younger folks whose *rutilantes comæ* of too fiery a hue make them conspicuous among their fellows may hope to substitute for their natural locks a fine head of jet-black, nut-brown, or golden hair.

THE LATE PROFESSOR KANTHACK.

We understand that a wish has been expressed by numerous friends of the late Professor Kanthack, whose premature death has caused so much sorrow, that his work should be commemorated in some suitable way. In response to numerous communications Mr. Henry T. Butlin, Mr. Anthony A. Bowlby, and Dr. Drysdale have issued a letter in which it is stated that it is probably not generally known that, largely on account of his generous expenditure of money in his various researches, Professor Kanthack had not been able, during the few years in which he was in receipt of an adequate income, to provide sufficiently for his widow. It is therefore proposed to raise a fund, the interest of which shall be devoted to the use of Mrs. Kanthack during her life, whilst the capital amount can eventually be employed in founding some permanent memorial to the late Dr. Kanthack. All who desire to contribute to the fund are requested to send subscriptions to Dr. J. H. Drysdale, 25, Welbeck Street, London, W.

THE BERLIN MEDICAL SOCIETY AND FEMALE MEMBERS.

A second attempt has been made to introduce female members into the Berlin Medical Society. At the meeting of the Society last week a lively debate took place on the proposal of Drs. Freudenberg and Zadek to call a general meeting for the express purpose of altering the Society's statutes in such a way as to make them include female Doctors of Medicine. Professor Virchow, the President, strenuously opposed the notion of calling a special general meeting, and Dr. Fraenkel moved that the whole matter stand over until the next annual general meeting. But there was no majority even for this compromise, and finally a suggestion of Professor Virchow's was carried—to send back Drs. Zadek's and Freudenberg's motion to the Committee for further consideration.

A RURAL TYPHOID OUTBREAK.

It is probably known to most of our readers that Mr. John Brigg, M.P., for the Keighley division of the West Riding, has been lying for weeks past in a precarious state. His illness was complicated, and Mr. Mayo Robson found it necessary to remove a limb. When Mr. Brigg returned home to Kildwick Hall in the beginning of December his illness was regarded as pneumonia, but on Christmas Eve the case was notified to Mr. Atkinson, the medical officer to the Skipton Rural District Council, as typhoid fever. Dr. Scatterty, of Keighley, who notified it, regarded the case as an imported one. It is said that Mr. Sharpe, who accompanied the patient home, returned to Matlock ill, and that his ailment was at the time regarded as typhoid. On January 12th Mr. Atkinson received intimation of a case of enteric fever in the district supplied by Kildwick water, and in a very short time there were 24 cases, with 4 deaths. Since then other cases have occurred both in Kildwick and in the neighbouring villages, and at the beginning of this week the total number of known cases was 47, and the number of deaths down to that date had been 8. The water supply mentioned came from the neighbourhood of Kildwick Hall, and had been regarded as pure. A sample examined showed no sediment or visible evidence of contamination, but on January 24th, fifteen minutes after introducing an aniline dye into the drainage system of the Hall, its colour was detected in the water tank. The sequence of events would therefore seem to have been (1) a limited population drinking with apparent impunity sewage-tainted water; (2) an imported case of typhoid, and the introduction early in December of the specific bacterium into the contaminating water; (3) cases of typhoid amongst the drinkers of the water, the illness of the first attacked beginning about January 3rd. As usually happens in such outbreaks there was not wanting the exception to test the rule. A young man, a teetotaller, from Bradley, attended a dinner at Kildwick. As the only abstainer present he seems to have justified his principles by drinking two glasses of water, and was afterwards taken ill at home.

THE STUDY OF TROPICAL DISEASES.

The Governors of the Seamen's Hospital Society, at their annual meeting held last week, approved the scheme to found a school for the study of tropical diseases at their Albert Dock branch hospital. We understand that the buildings for the school and hospital extension are being rapidly pushed on, and that the school will be opened in October. The festival dinner in connection with this school, at which Mr. Chamberlain will preside, is to be held at the Hotel Cecil on May 10th. It is satisfactory to find that one of the first subjects to which the newly-formed West African Trade Association is giving its attention is that of the prevention of malarial diseases. The Association has rightly perceived that the first step towards any effective prevention must be a thorough investigation of the etiology and pathology. So impressed is it with the importance of the scientific study of the disease, that the President stated that the executive committee was ready to contribute towards the expenses of sending experts to the West Coast of Africa, and he added that whatever suggestions might come from the special commission appointed by the Colonial Office and the Royal Society to visit various centres of malarial disease would receive the encouragement and the pecuniary help of the traders. A hope was expressed that good results would flow from the establishment of the School of Tropical Medicine in Liverpool, and it was stated that the Traders' Association would give active support to the school.

HOW THESE ANTIVIVISECTORS LOVE ONE ANOTHER.

Antivivisectors as a class seem to suffer from a serious defect of the heart. In them that organ—in the metaphorical sense—has only one cavity, and that is so filled with the love of animals that there is no room in it for the love of their kind. Next to their highly cultivated talent for perversion of the truth, nothing is more striking in the writings of the "zoöphilist" fraternity than the fierce joy which they feel in inflicting pain on those who differ from them. They weep for the sufferings of a consumptive guinea-pig and shiver in sympathy with a malarious mosquito; but they have no compunction about practising moral vivisection on their fellowmen. Their victims may perhaps find some consolation in the fact that if they love men in general little, they love each other still less. We have heard whispers in this country of quarrels among the zoöphilists; of schisms and excommunications; of leaders in the movement cutting themselves adrift from the main body and setting up what the irreverent might call an "opposition show." We have not yet heard that they have actually come to blows—at least in public, but so high does feeling run that, unless meetings are carefully packed, appeal is too likely to be made to the *ultima ratio* of the umbrella. This consummation has nearly been reached in America. At the last annual meeting of the New England Antivivisection Society at Boston a free fight seems to have been imminent. Only a partial report has been allowed to leak out, but that is sufficiently edifying to deserve quotation. We take it from *Science* which gives it on the authority of the *Boston Transcript*: "Back into the room again swarmed the rest of the gentlemen, and soon another wrangle was going on in which old gentlemen in silk hats talked loudly and vigorously to one another. Threats were beginning to be made—threats of violence. Secretary Brazier finally secured a hearing. 'As custodian of all the property in this room I ask everyone present to leave,' said he, and simultaneously several women arose and started to leave the room. But Mr. Greene again had the floor. 'Don't go, ladies, he has no right to order your departure.'... Several personal altercations followed, one of which seemed about to culminate in violence, when the meeting broke up in confusion." Such harmony is in immortal souls!

THE PREVENTION OF ANTHRAX IN WOOLSORTERS.

ANOTHER case in which neglect of the precautions prescribed by law in woolsorting has terminated fatally has occurred in Bradford. The evidence at the inquest, as reported in the *Bradford Observer* of February 20th, showed that a woolsorter, a woman aged 38, in the service of Messrs. Root and Co., contracted anthrax while engaged in sorting Persian wools. The disease started on the neck. A pimple was first noticed, and this the bookkeeper covered with a piece of plaster. This appears to be a precautionary measure designed to protect accidental scratches or other slight lesions of the surface from infection, and is in accordance with the Home Office regulations. The woman continued at work till the fourth day, when she was taken to the hospital on the direction of Dr. Bell, with whom the employers had communicated. The infected area was there excised, but she died four days later. The woman had made complaints at home for two months of the smell and dust arising from the goods. It was shown that the bales of wool were not opened or sorted under a downward draught, nor had they been previously treated with any disinfectant, as laid down in the regulations. The bookkeeper stated in his evidence that it was a stringent rule of the factory that all cuts, sores, or pimples were to be shown to him under pain of dismissal. Every week on an average he treated some 70 such slight cases with plaster; but any cases which appeared likely to be dangerous were sent to Dr. Bell, and a notice was posted in the works to the effect that, when necessary, an order could be obtained to consult Dr. Bell. The deputy coroner, Mr. J. G. Hutchinson, jun., in summing up, said that there had been neglect of the regulations, but it would be very difficult to declare absolutely that any particular omission was the cause of death. The jury returned a verdict of death from general anthrax, and stated that they were unanimously of opinion that there had been negligence, in that bales of dangerous wool had been opened on the floor of the sorting room, but that there was not sufficient evidence to show whether such negligence had been culpable and criminal. The number of deaths from anthrax certified annually to the Home Office is not large; still, the last return shows 26, and it is evident that the provisions which exist for the prevention of this mortality ought to be strictly enforced.

A LAW AGAINST TIGHT LACING.

A LONDON magistrate once declared his intention of "putting down" suicide. His well-meant attempt was not more Quixotic than that of certain grave and reverend seigniors of the law in foreign countries to "put down" tight lacing. In St. Petersburg, as was stated not long ago in the BRITISH MEDICAL JOURNAL, a ministerial decree has been issued to the effect that the girls attending universities, schools of music and fine arts, and other educational establishments of the same order, must on entering "doff the cuirass which they wear under the name of corset." Now Mr. Dagget, a member of the Wisconsin State Legislature, has introduced a Bill, which runs as follows:—"Resolved that a committee be appointed, consisting of three members, to draft a Bill to protect the health of the misses, old maids, and married women of the State of Wisconsin, by making a law to prohibit tight lacing," We do not know whether the elegance of style displayed in the terms of this proposition is due to the legislator from whose brain it emanated, or to the Parliamentary usage of Milwaukee, but the meaning is sufficiently plain. Equally plain is the fate of the resolution if it ever becomes law. Has not Mrs. Helen Barker, the President of the Women's Temperance Union, already declared that trouble will begin when the police begin to enforce such a law? And we are sure the indignant matron only speaks of that which she does know. In America, more even than in Europe, *ce que femme veut Dieu le veut*, and it may be taken as certain that whatever the Women's Temperance Union wish they will see that they get. They have in many places deprived man of any public facilities for getting drunk, and their zeal for the general legislative repression of the poor "lord of creation" has made them a power in the land. Man was made to be governed, and if he cannot govern himself woman must do it for him; but let him not think of attempting to govern her. Particularly let him not dream of interfering with her sacred right of wearing her stays in her own way. If he does, every woman will be a Wat Tyler against the minion of the law who attempts to test the tightness of her corset. Bolingbroke defined history as "philosophy teaching by examples." A historical example may serve to give Russian and American legislators sounder notions than they seem to have on the philosophy of stays. It is not only in modern times that the law has attempted to deal with tight lacing. Cesare Vecellio, whose work, *Degli Abiti Antichi e Moderni*, was published at Venice in 1590, says than in his youth stays, strengthened with plates of steel, were worn by the Venetian women. The effects were so injurious that a law was passed against the wearing of these instruments of cosmetic torture. But nothing came of it, nor do we think that even the Russian Government will be more successful.

THE CORONERSHIP FOR EAST SUSSEX.

THE County Council of Sussex have issued advertisements inviting applications for the vacancy created by the retirement of Mr. Hillman. The appointment is for life, and the salary, to include travelling expenses, has been fixed for the next five years at £400 a year. Already a considerable number of candidates are in the field, and amongst them are several well-known practitioners and solicitors practising in the county. The conflict between law and physic has always played an important part in the election of coroners whenever a contest for the appointment takes place; and this is not less manifest under the present mode of election than it was when the freeholders of the county recorded their votes at the hustings. In the metropolis we can chronicle a succession of medical coroners who have attained their position by an increasing majority of votes up to the present time, and the last two appointments made by the London County Council were of medical men, selected from a large number of candidates, including many members of the legal profession. That the medical man by his special education is better fitted than the lawyer to fill the post, provided other qualifications are equal, we do not hesitate to assert, and in confirmation of this opinion we may point to those who are now in office throughout the kingdom as well and ably performing the duties of the appointment. Not only in the holding of inquests, but in the preliminary investigations of reported cases and in deciding whether it is necessary to hold a public inquiry or not, the knowledge of the medical coroner becomes especially important, and no amount of legal education can in itself compensate for its absence. It is not difficult for the medical coroner to acquire in a short time all the law that is necessary for the legal and proper discharge of his duties, but to obtain a knowledge of medicine sufficient to justify an opinion or a judgment would require years of close study hardly possible for a lawyer in practice to achieve. During the last few years many medical men have qualified themselves both in law and physic, and those holding this double qualification have been successful in obtaining similar appointments to that now vacant. We observe that Dr. George Vere Benson, who is also a barrister-at-law and Deputy Coroner for Middlesex, and Dr. Charles Norton Hayman, a practitioner of good standing in the county, and Mr. Bedford, solicitor, of Newhaven, late Deputy for East Sussex, are candidates for the vacant office. By the advertisement we observe that testimonials are to be limited to three of recent date, that personal canvassing is strictly prohibited, and that all applications are to be made to the Clerk of the County Council, Lewes, before March 14th.

NURSING EUROPEANS IN INDIA.

THE Up-country Nursing Association, which was established in 1893, and is under the patronage of Her Majesty the Queen, has appealed for increased support with a view to extending the field and scope of its operation. This Association has already done good work in a quiet way. It has sent twelve selected and trained nurses to the North-Western Provinces and the Punjab, where local Committees have been formed for the purpose of co-operation and management. The funds placed at the disposal of the Association have enabled it to pay for the outfit and passage of the nurses, whose services have proved of great value to the sick in places where skilled nursing was not otherwise available. Fees have been paid by those able to afford it, and the Association is desirous by means of grants in aid to extend the benefit of proper nursing to those who can only afford to pay fees on a reduced scale. Appeals for help have come from other parts of India which cannot be met without further aid in the shape of donations and subscriptions, which will be received and acknowledged by Messrs. Henry S. King and Co., 65, Cornhill, E.C. Further particulars regarding the operation and aim of the Association may be obtained by application to the Honorary Secretary, Major-General J. Bonus, R.E., The Cedars, Strawberry Hill, Twickenham.

THE GEOGRAPHICAL DISTRIBUTION OF PLAGUE.

PROFESSOR PROUST, Inspector-General of the French Sanitary Department, recently made a communication to the Académie de Médecine in which he deplored the fact that the measures adopted at the Conference of Venice in 1897 had not been efficiently put in operation. Having enumerated the various plague centres in India, he remarked that the strict prohibition of pilgrimage enforced in 1897 had been relaxed during 1898. Koch had stated there was still another plague focus in Africa, in the country of Kisiba, at the extreme north-west of German East Africa. Here again epidemics among rats were noticed. Plague had also declared itself in Madagascar, having apparently been imported from Bombay. According to the latest statistics, 204 cases had occurred at Tamatave, of which 132 had died, the incidence being mainly upon the natives. Professor Proust then detailed the circumstances of the outbreak at Vienna in connection with the laboratory in October last. He praised the promptitude and energy with which the little epidemic had been met. In consequence of this accident, a commission appointed by the French Government had drawn up a very stringent set of regulations to be observed in all laboratories in which cultures of the B. pestis were kept. He then called attention to the various cases which had occurred on ships arriving at various ports from India. He cited as instances the *Dilwara* and the P. and O. steamers *Carthage* and *Caledonia*. In the latter case he commented strongly on the action of the sanitary authorities on board and at Suez. He then mentioned the cases of the *Golconda* and of the *Mahallah*, and said that it was only by the active measures adopted by the port sanitary authorities that plague had not been introduced at the various ports at which these vessels touched. In the *Mahallah* disinfection was practised on three separate occasions, but, despite these precautions, two more cases of plague occurred on board. So the total destruction of the *Mahallah* was seriously discussed, and would probably have been carried out but for the strong representations made by the owners. Dr. Ruffer himself superintended the fourth disinfection, which for rigour and completeness rivalled that of a surgical operation. Finally the ship had been forbidden to make a voyage for six months. Throughout his paper Professor Proust appealed for strict enforcement of the regulations drawn up by the Venice Conference, and cited these instances of plague on shipboard as showing the real danger to Europe which had existed during the past two years, and which would continue to exist unless satisfactory precautions were adopted.

DEATH OF PROFESSOR RUTHERFORD.

DR. WILLIAM RUTHERFORD, Professor of Physiology in the University of Edinburgh, died on Tuesday morning, February 21st. Two weeks ago Professor Rutherford was in his usual vigour. Then he had an acute tonsillitis. An abscess formed and discharged itself. Immediately after this signs of influenza showed themselves. The temperature varied from 101° to 104° F., there was great cardiac weakness and irregularity, and profound prostration; there were no pulmonary complications. He sank exhausted. By his death the University of Edinburgh has lost one of her most brilliant lecturers, physiology an accomplished exponent, and the social, medical, and scientific clubs of Edinburgh one of their most genial members. He will be greatly missed in all student gatherings, where he was always a delightful guest, both on account of his singing and his high social qualities. He was 60 years of age, and a bachelor.

MR. CHAPLIN'S FIGURES.

MR. CHAPLIN, in his recent answer to a question as to the number of certificates granted to conscientious objectors, took a somewhat sanguine view of the situation. According to his figures, it appears that from the year 1885 the number of children remaining unvaccinated has been steadily increasing, that is to say, from 136,000 in 1885 to an "estimated" number of 370,000 in 1898. Over 12½ million births were registered during that period, and 3,325,000 infants were unvaccinated. Certificates were granted to the number of 239,000 during the part of last year when the Conscience Clause was in operation. It must of course be remembered that persons having the custody of children born prior to August 12th, 1898, and under the age of 14, were entitled to lodge a conscientious objection, and there is no doubt that a very large number of persons availed themselves of the privilege. We are therefore unable to say how many certificates were granted in respect of children actually born between August and December, 1898, and Mr. Chaplin does not appear to have given any figures upon which an approximate estimate might be based. Moreover, it is unsafe to assume that the number of certificates is equivalent to the number of children who have escaped vaccination within a given period, having regard to the fanatical views entertained by some parents and to the laziness of others. The statistics as to the number of conscientious objectors, if studied for the purpose of ascertaining the true effect of the Vaccination Act, 1898, are thus incomplete and probably misleading. They are founded not upon the working of the Act as a whole, but upon the old vaccination law as modified by the conscience clause. It was pointed out in the BRITISH MEDICAL JOURNAL of September 3rd, 1898, where the various provisions of the Act were discussed, that other alterations were made in the law which not only facilitate the performance of vaccination, but ensure that it shall be carried out under the most favourable conditions. It would appear from evidence already published in these columns that the scruples of a conscientious objector rapidly melt away if, by consenting to the operation, he can save himself a little trouble.

THE FORTHCOMING TUBERCULOSIS CONGRESS.

THE organising committee for the approaching Congress on Tuberculosis is beginning its work of selecting among the large number of papers and addresses of which notice has already been given. As membership of the congress will be open to all professions, and to all classes of society, and as its duration has been limited to four days, the chief papers will be those dealing with the great general subjects of prevention and treatment, while the more technical questions will find their place in the subsequent debates and discussions. Professor Virchow has promised an address on Tuberculosis in its Relations to Food.

THE CENTRAL POOR-LAW CONFERENCE.

THIS Conference, which has come and gone, has been of unusual interest, dealing as it did with such questions as wider powers for guardians, the best means of providing and training nurses for the indoor poor, and old-age pensions and the Poor Law. These subjects covered ground on which opinions differ, and on which opinions are pretty pronounced, so that the discussions which followed the papers were lively. The question of most interest to us is that of the nursing of the workhouse infirmaries. Miss Wilkie, of the Halifax Union, contributed a thoughtful paper, in which she advocated the remodelling of the infirmary on the lines of the hospital. Dr. Blake Maurice, of the Marlborough Union, who followed, took the philanthropic view, and suggested the training of women who at the present time were doing unattractive and onerous work among the poor from religious motives. In the discussion that followed there was a consensus of opinion that the bad conditions of work and the uncertain position of the nurse were at the root of the difficulty. Miss Wilkie revived a suggestion, which has often been made in the BRITISH MEDICAL JOURNAL, that the Local Government Board should form a nursing department composed of lay and nursing experts, which should take cognisance of all questions affecting the large body of nurses employed under the Board. What is wanted is that the conditions of the nurse's work should be improved and the position made more honourable. The Poor Law in the abstract is commendable, but the administration is most faulty.

INDIAN CIVIL ASSISTANT SURGEONS.

THE regulations that have been issued by the Government of India improving the pay and status of this deserving and useful section of the subordinate medical department have been received with much satisfaction. The fiction of "unemployed pay," which was given to officers attached for duty to hospitals while awaiting appointment to substantive charges has been abolished. A new grade, carrying a monthly pay of Rs. 300 has been established to which promotion is to be given by selection, and without further examination, after twenty-one years' service; the existing grades, with salaries of Rs. 100, Rs. 150, and Rs. 200 respectively, being retained. Civil assistant surgeons have further been declared eligible for the charge of Civil stations, and in that capacity will receive a consolidated salary of Rs. 350, rising by increments of Rs. 30 to Rs. 500 per mensem. Nineteen appointments of this kind—five in Bengal, five in Madras, two in Bombay, two in the North-Western Provinces, three in the Punjab, and two in Burmah, have been reserved for this purpose, and it is proposed to increase the number to twenty-eight. It is further provided by Government that assistant surgeons lent to municipal bodies shall receive the full pay of their grade. These concessions are recognised as being liberal, and ought to attract the best graduates of Indian Universities, and to promote the efficiency of the public service.

MEMORIAL TO THE LATE PROFESSOR COATS.

A FORTNIGHT ago a meeting was held in Glasgow at which it was resolved to raise a fund for a memorial to the late Dr. Joseph Coats, and a proposal was adopted that it should take the form of a university prize or scholarship in connection with pathology. Many of the late Professor's colleagues, assistants, and numerous pupils will no doubt be pleased to learn of this endeavour to commemorate his name. The members of the medical profession estimate very highly his scientific work, and are best able to appreciate the services he has rendered to the progress of medicine and surgery, while his friends outside of the profession will no doubt be glad of an opportunity of testifying to their high estimate of his character as a man. To carry out the proposed plan, a sum of at least £1,200 will be required. Circulars are being issued, inviting subscriptions; but as many of Dr. Coats's friends and former pupils, who are widely scattered, may not be reached in this way, those who are managing the fund desire that it should be made known that contributions will be received and acknowledged by Dr. David Newman, Honorary Secretary, 18, Woodside Place, Glasgow; or by Mr. James J. MacLehose, Honorary Treasurer, 61, St. Vincent Street, Glasgow.

MILROY LECTURES.

AT the close of his lecture, published in another column, Dr. Poore exhibited an interesting series of rabbits which had been buried in wire cages for a year at different depths and under different conditions. The results of these experiments will be dealt with in an appendix. We are asked to state that the specimens will be shown again at the close of the lectures on Tuesday, February 28th, and Thursday, March 2nd next, to anyone interested in the subject.

WE regret to have to announce the death on February 22nd, from pneumonia, after a short illness, of Dr. Charles Arkle, Assistant Physician to Charing Cross Hospital.

THE Home Office is about to issue an Order adding trades in which mercury is used to the list of those to which special regulations apply.

WE understand that in consequence of the attention recently called to the liability of erythrol tetranitrate to explode with considerable violence by percussion or heat, it is the intention of the Home Office to issue a warning to those concerned as to the risk attending the handling of this compound.

THE memorandum of the Secretary of State relating to the Army Estimates for 1899-1900 proposes to provide 18 additional officers of the Royal Army Medical Corps and 150 men in this year's estimates. The increase in the Royal Army Medical Corps is the inevitable corollary of the general augmentation of the army. The total increase to the army now in prospect amounts to nearly 30,000 men.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondents.]

Vaccination continues to form the subject of many questions in the House of Commons. Mr. Hanbury, in answer to Mr. Bartley, has stated that candidates for admission to the permanent Civil Service and all established workmen in Civil Departments must have been satisfactorily vaccinated, or, if not, revaccinated. Customs boatmen must have been vaccinated within seven years. With regard to persons temporarily employed, each department fixes its own requirements. The Post Office requires both primary and secondary vaccination, the revaccination within seven years, and only excepts soldier candidates, who are presumed to be vaccinated, subpostmasters, and persons employed for very short periods. The practice of Government Departments has, it seems, extended to the Peabody Trustees, as the Home Secretary refused to interfere when asked by Mr. Lough to obtain for the tenants a right to plead conscientious objection if required to leave unless their children were vaccinated. In reply to Mr. Bartley, Mr. Chaplin also stated that any person who is not less than 10 years of age, and has not been previously revaccinated within a period of ten years, may still be revaccinated by the public vaccinator free of charge, as was the case before the new Act was passed. He added that the public vaccinator would, if so required, deliver to the person revaccinated a certificate of the result.

Vaccination (Conscientious Objectors) is the short title of the Bill introduced by Mr. Boulnois on Friday last to repeal Section 11 of the Vaccination Act, 1898. It is backed by the introducer, Sir John Lubbock, Mr. Whitmore, Sir Seymour King, Mr. Coghill, Mr. Duncombe, Sir Reginald Hanson, and Mr. Hozier, and is down for second reading on March 1st; but, as it is fifth order on that day, it is almost certain not to be reached. Its wording is brief and to the point. The first clause reads "Section 11 of the Vaccination Act, 1898, is hereby repealed"; and the second clause fixes the date of repeal as October 1st, 1899.

The Sick and Wounded in Egypt appear, from a question raised by Captain Norton, not to have been provided with a hospital ship, as suggested as far back as June last. The application then made seems to have been postponed for a time, and when an urgent demand was made in September the ship was not sent, as it would have taken five weeks to fit out. No fewer than 465 invalids were sent home on passenger ships between September 20th and October 30th, and it was stated by the questioner that 60 or 70 officers and men were down in hospital at Alexandria with only two nurses to attend to them. It would seem that whatever view may be taken of the non-provision of a hospital ship, the outbreak of enteric fever at the end of the campaign found the accommodation and staff at Cairo and Alexandria sadly inadequate. Tents were pitched close to the hospitals at Cairo and Alexandria, and in September the average number of patients was at Cairo 354, and at Alexandria 113; during October, Cairo 347, Alexandria 268. The total deaths were 104; the nursing seems to have been done by men of the Army Medical Corps, but further inquiries will no doubt elicit the actual number of female trained nurses engaged.

The Metropolitan Water Companies Bill was introduced and read a first time on Monday. Mr. Chaplin explained that its objects were to require the eight different companies, when directed by the Local Government Board, to construct works for supplementing the supply of any district in times of drought. The lamentable failure of the supply in East London last year could have been avoided, if the intercommunication between the mains of the companies had been constructed, for in spite of a dry season—unequalled for eighty-six years—the present sources of supply would have been adequate for all requirements had one company been able to immediately supply the deficiencies of another. The Bill also provides that the companies are to supply water to each other "at a reasonable cost, and to such extent as the Local Government Board may direct." The Bill was regarded as a small method of dealing with a great question, and giving by its very provisions additional weight to the policy that would regulate and control the water supply of all great towns by a strong central authority to deal with the whole area. A water famine is so terrible a calamity in itself, apart from its close connection with the spread of disease, that the Bill is sure to receive detailed criticism, and possibly attempts may be made to give it a much wider scope ere it leaves the Commons.

Convalescent Homes for Soldiers are at last to be formed by the selection of ten barracks in suitable districts, and their adaptation for the reception of 3,500 men. This will also probably entail the provision of special medical superintendence in these districts, and will in this way make the selected places more important centres of medical work. Many a soldier will have a better chance of being restored to active work, and in the end the scheme will be found, many think, like other schemes founded primarily on benevolent motives, an economic advantage to the country, and a decided gain as regards the efficiency and the popularity of the service. Captain Norton is to be congratulated on the success which his long-continued efforts have produced in the announcement made by the Under-Secretary for War on Tuesday last.

The Public Health Acts Amendment Bill, which was down for second reading this week, is an old friend. It failed to pass a stage on Wednesday, and is postponed to March 29th. It is an attempt to bring into a single general Act the many powers which have from time to time been granted to different local authorities in private Acts of Parliament. When all these various provisions are grouped together they present a somewhat formidable array, but as each one has already received the sanction of Parliament no alarm need be felt. The Bill will do much to improve the sanitary administration of backward localities, and generally protect the interests of the population as regards public health.

The Cottage Homes Bill came on for consideration on Wednesday. The Address ran over till Tuesday, and at one time threatened to occupy the Wednesday. This was, however, avoided by the withdrawal of some amendments, and so the private members had their day. They made good use of it, and obtained the second reading of the Cottage Homes Bill. The Government, while assenting to this, decided that the Bill should go to a Select Committee. This course was inevitable after the grave criticisms which the provisions of the Bill called forth. The proposal of the Bill that parish councils and other local authorities should build and administer homes for the deserving poor under the control of the county council, and out of money to the extent of three-quarters provided by a county rate and the remainder out of national funds, is a bold one, and will no doubt be greatly modified before it passes into law. The significance of the second reading is that it is a declaration in favour of making provision for old age outside the Poor Law and under some other authority.

The Amendment of the Indecent Advertisement Act is, the House was assured by the Home Secretary, under his very serious consideration. It is understood that Sir Matthew White Ridley would not be indisposed to introduce legislation, either to amend the Indecent Advertisement Act or otherwise, if a practical scheme would be evolved. There will, however, it is thought, be considerable difficulty in drafting such a Bill.

An Amendment of the Law as to Constructive Murder is to be attempted by Mr. Ambrose, Q.C., who has a Bill which is intended to carry out the recommendation of the Criminal Code Bill Commissioners, of whom the late Sir James Fitz James Stephen was one. The Bill would provide that upon a trial for murder no constructive or implied malice shall be imputed to the accused merely because it is shown that he caused the death of the deceased by or in the course of the commission of or attempt to commit some other felony.

PUBLIC HEALTH ACTS AMENDMENT BILL.

A VERY comprehensive Bill to amend the Public Health Acts has been introduced into the House of Commons by Sir Alfred Hickman. It was down for second reading on February 22nd.

The Bill, which is on the principle of the Public Health Act Amendment Act, 1890, adoptive in any one of its parts, consists of a number of clauses, which, with the consent of the Police and Sanitary Committee of the House of Commons, have been added to various private Bills promoted by various sanitary authorities. It contains seven parts. The first part has only two clauses, relating respectively to the short title and the mode of adoption of the Act. This is similar to that prescribed for adopting the several parts of the 1890 Act. Parts II and VII may be adopted by any sanitary authority, Parts III, IV, V, and VI by any authority having or obtaining urban powers. Part I contains sanitary powers usually so called. It has twenty-four clauses.

Dairies and Laundries.—Clauses 3 and 4 provide that dairymen and washerwomen (including those engaged in mangling, and of course laundrymen) may, under certain circumstances, be required to furnish the medical officer of health with lists of their customers at a fixed rate of remuneration. The 5th enables a medical officer to require from a milk purveyor a list of the farms from which he obtains his supplies; and the 6th requires all dairymen supplying milk to a district from farms beyond that district, to notify to the local authority of the district supplied (why not the M.O.H. as in the Notification Act?) "all cases of infectious disease amongst persons engaged in or in connection with their dairies." The wording of this clause could easily be improved. It is equally important to know of a case of scarlet fever at the home of a cow tender or in the house where the milk cans are washed; but this does not seem to be provided for.

Diseases of Milch Cows.—We give Clause 7 in full on account of its special interest at the present time:

> Every dairyman who shall sell the milk of any cow to his knowledge affected with tuberculosis or milk (or parturient) fever shall be liable to a penalty not exceeding *forty shillings.*

The annotated print of the Bill, issued with the name of the Town Clerk of Wolverhampton on the back, mentions Leicester, Ilford, Leyton, and St. Helens as already having this clause. No mention, however, is made of Edinburgh and Glasgow, both of which possess similar though somewhat stronger powers, so far, at least, as tuberculosis is concerned. The question as to what is "milk or parturient fever" is at least as debatable in the cow as in the human subject. Is it intended to include the disease known to veterinarians as parturient apoplexy, though often called by the cowkeeper milk fever? It might have been well to add all diseases of the udder to those rendering the milk unsaleable. The cowtender can generally detect these, and the most serious cases of tuberculosis, so far as the public are concerned, are those where the udder itself is affected. Section 8 requires the notification to the authority of the district supplied of "all cases of tuberculosis or milk fever," and the former remarks equally apply.

Infectious Diseases in Dairy and Fruit Workers.—Clause 9 would prohibit a person suffering from any infectious disease from milking, fruit picking, or otherwise having to do with food supply. No definition is given, here or elsewhere, of "infectious disease." Perhaps this is as well. No local authority is likely to proceed against a milk dealer under this clause on account of itch or other comparatively trifling ailment.

Books.—Clause 10 enacts that no one shall return an infected book to any public library [What about private circulating libraries?], but shall give notice to the inspector of nuisances, who shall cause the same to be disinfected and returned to the librarian. The method and efficiency of the disinfection is left to the inspector, but he seems to have no option of destroying the book if the authority, as so often happens, have no proper means of disinfecting books.

Infectious Hospitals.—Clauses 11 and 12 give power of making by-laws for infectious hospitals (temporary and otherwise), and make it clear that want of proper isolation is sufficient warrant for setting the compulsory power of the Public Health Act, 1875, in action. St. Helens, Leamington, South Shields, Leicester, Ilford, and Leyton, are mentioned as possessing this power, which, by the way, Huddersfield has had for a quarter of a century.

Home Nursing.—By Clause 13 the important power is conferred on an authority of providing home nursing for cases of infectious disease. Is tuberculosis being included under this category?

Slaughtering.—The next clause makes it unlawful to blow or inflate any carcass,[1] while the 16th exempts the provisions of the Diseases of Animals Act, 1894, from being interfered with by anything in this Bill.[2]

The following clause seems to provide against such a miscarriage as in the well-known Portsmouth case:

> Any person who sends or deposits, or permits to be sent or deposited for the purpose of sale, or of preparation for sale, any food intended for the use of man, which is to his knowledge diseased or unfit for the food of man, shall be liable to a penalty not exceeding £20.

It is perhaps worth remarking that Brighouse possesses this clause. It is not easy to see why the man who knowingly sends unsound meat for food should escape with a fine, when the immediate seller is liable to imprisonment without such option.

Clause 19 is also an attempt to extend backwards to the original vendor the penalties provided in Section 117 of the Public Health Act of 1875.

Section 20 enables the sanitary officers to enforce the testing of drains. The powers, however, only apply where the officer has reason to suppose a defect really exists. Why should not every householder have the right to have his drains examined periodically? Surely it is well to lock the door before the steed is gone.

House Drains and Cellars.—Clause 21 raises the vexed question of private drains. We have grave doubts, however, if legislation on the lines of the Bill will get rid of this opprobrium of sanitary law. If the proposed clause is sufficient it ought to be law for the whole country, not merely for the towns which may be willing to adopt the whole of this part of the Act. By Clause 22 the penalty for letting a cellar dwelling, not conforming to conditions in Clause 72 of the Public Health Act, 1875, is extended to embrace the permitting such occupation even where no rent is paid. The four following clauses deal with the closing and filling up of offensive cesspools and ashpits, the provision of sinks or drains, the power of entry to secure the purification of unwholesome houses and the provision of public conveniences.

Parks and Streets.—Part III has to do with parks and recreation grounds, and embraces Clauses 27 to 36. Part IV concerns streets and buildings. Clause 37 provides that passed plans not carried out within three years must be resubmitted; 38 allows the making of by-laws as to depositing copies of plans, etc.; 39 and 40 deal with building lines. Clause 41 provides that no new street shall extend more than two hundred yards without a cross street. Unfortunately, it allows the authority to enforce the provision or not, as it likes. It leaves it to be squeezed by the speculative builder. Crossing places, the defining of streets, the definition of new buildings are then dealt with. Clause 46 is important. It provides that, in future streets, no building shall without the sanction of the authority exceed in height two-thirds the width of the street. The next clause requires new houses to have water and drainage provided, and to be in conformity with the local by-laws before occupation. The two following clauses exempt Crown and railway buildings in some respects. Parts V and VI deal with street traffic and street advertisements.

Common Lodging Houses.—These are dealt with in Part VII, which contains three clauses, 53 to 55, requiring the keeper to reside in the lodging house, and either he or his deputy to be in from 9 P.M. to 6 A.M., making it penal to keep a common lodging-house without being registered, and giving the licensing authority power, for good cause, to refuse the registration of an unfit person.

It is, perhaps, to be regretted that at least the sanitary clauses are not individually adoptable. Many towns have stronger powers in certain directions already. Are they to sacrifice these to gain some of the others they wish for? The Bill should at least contain a clause saving all existing powers to such places.

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[1] The choking or silting up of a stream is made a nuisance under Section XCI of the Public Health Act, 1875, by Clause 15.

[2] Why Clause 17, providing for making known to persons interested in it the adoption of this Act, should have come here instead of in the first part is difficult to account for except on the score of careless drafting.

THE HULL LYING-IN CHARITY.

At the instance of the President of the East York and North Lincoln Branch of the British Medical Association, a meeting of medical men practising in Hull was held on December 22nd, 1898, to consider the mode in which the Hull Lying-in Charity is at present conducted. A Subcommittee was appointed on that occasion, and from its report we learn that the population of Hull, estimated at about 225,000 is on the whole a poor one. the bulk of the midwifery fees being 21s., or even less. The average number of births is 7,272, these cases being attended by private practitioners, Poor-law medical officers, certificated and uncertificated midwives, and the certificated midwife of the Hull Lying-in Charity. This Charity, established ninety-five years ago, "for the relief of poor married lying-in women," is managed by a committee of ten ladies. Previous to 1895, excluding an honorary physician and two honorary surgeons, the staff consisted of two medical practitioners and one midwife, who attended all the cases for a comparatively small fee; the administration of the charity being entrusted to the matron, who occupied the house in Reed Street. In 1895, however, "in order to reduce the working expenses of the Charity," the Committee decided to dispense with the services of medical practitioners, and to employ a certificated midwife to attend all the patients, except in cases of extreme difficulty, when she was instructed to call in one of the three medical practitioners, who were then appointed on the staff, and who were to act if summoned in case of necessity, and to receive fees for such services. In 1896, on the retirement of the matron, the midwife was appointed as matron and midwife, and took up her residence, rent-free, in the furnished house of the charity in Reed Street. The Committee also permitted her to increase her income by attending private cases, and by taking pupils. The average number of cases attended per annum for the years 1894-97 was 165.

At present it appears that the midwife is assisted by two additional certificated accoucheuses and three pupils, all living in the house of the Lying-in Charity, and that these six midwives are attending a very large number of private midwifery cases (estimated to be one-seventh of the total number of births in the city). The Committee only officially recognises the matron-midwife, but is cognisant of her co-operation with the other five midwives. It is understood that these midwives have entered into an arrangement with a medical practitioner to assist them in cases presenting difficulty in their private practice.

The meeting of medical men on December 22nd, 1898, was largely attended, and after full discussion it condemned unanimously the action of the Lying-in Charity, on the following grounds:

(*a*) That the Charity permits its matron-midwife to engage in private practice, instead of confining her attention to the cases of the Charity.

(*b*) That the Charity permits its matron-midwife to co-operate with five other accoucheuses, who reside with her in the furnished house in Reed Street, provided, rent free, by the Charity, and enjoy the advantages and prestige attached thereto, though the Charity exercises no control over them.

(*c*) That the Charity permits its matron-midwife to take pupils, and charge fees for their instruction, without exercising any control over them.

(*d*) That these six accoucheuses and pupils are conducting a very large private midwifery practice, over which the Charity exercises no control, but which is considered by the general public to be under the direction of the Charity itself.

(*e*) That these midwives actively tout amongst the private patients of medical men. One medical man writes: "One of my patients had been seen three times one morning about her case. I happened to call in and was informed about it;" and several speakers at the meeting gave other instances of this practice.

(*f*) That these midwives obtain many of their patients by offering to attend them for half or even less than half the fees they have hitherto paid, and are well able to pay; the temptation of a reduced fee in most cases cannot be resisted.

(*g*) That the midwives have entered into an arrangement with a medical man to assist them in cases of difficulty, where the patients are able to pay a fee.

(*h*) That in cases of puerperal diseases, where the patients are unable to pay the fee of this practitioner, these midwives urge the patients to obtain letters of recommendation to the Hull Dispensary, and then leave them.

(*i*) That in cases of difficult labour, these midwives, instead of sending for the regular medical attendant, have summoned this practitioner, and have thus given him an introduction to the family. (It may be mentioned that in many families these midwives attend the mother during her confinements, but the family doctor attends for other illnesses).

(*k*) That owing to the competition with this co-operation of unqualified persons, countenanced as it is by one of the oldest established charities in Hull, the incomes of many hard-working members of the profession had been considerably reduced. One medical man estimated his loss at £80 to £100 per annum, another had lost 25 per cent. of his cases, others estimated their losses at £12 to £40 per annum.

(*l*) That the tendency in the future would be towards further reduction in midwifery fees, already very low as compared with other towns.

The meeting decided that the only possible remedy was the suppression of the private practice of the midwife of the Lying-in Charity, and a Committee of seven medical men was thereupon appointed to draw up a letter to the Committee of the Charity, offering to confer with them on the subject. This Committee forwarded a letter to the Honorary Secretary of the Charity, which expressly stated that:

> There is no desire on the part of the medical profession to interfere with the *bonâ-fide* work of the Charity, which, as far as it is aware, has been carried out to the advantage of many poor lying-in women.
>
> It is, however, understood that the Charity has allowed its matron and midwife to co-operate with five other accoucheuses, who are living in the house of the Charity in Reed Street, and enjoying the advantages and prestige attached thereto; and that these midwives are conducting a very large private midwifery practice over which the Charity exercises no control, but which is considered by the general public to be under the direction of the Charity itself.
>
> The Subcommittee requests me to say that it will be pleased if your Committee will kindly suggest some date on which a conference may be held to consider the whole subject.

On January 21st, 1899, a reply was received from the Honorary Secretary of the Charity, which stated that the Committee of the Charity "unanimously agreed that they did not see the need for making any change in the existing management of the Charity." This reply, practically amounting to a refusal to discuss the subject, has left the whole question in a very unsatisfactory state. This Lying-in Charity, supported by public contributions, employs one matron-midwife to attend an average of about 165 patients yearly. She receives a fee for every case attended, and is lodged rent free in the house of the Charity. The error in the arrangements begins when she is allowed to increase her income by attending private patients, and taking pupils. The case is much the same as if the house-surgeon of a hospital were allowed to undertake private practice. The second error is that the matron-midwife may further increase her gains by being assisted in her private work by two certificated midwives and three pupils (necessarily non-certificated), all of whom live in the house of the Charity, and enjoy advantages and the prestige attached thereto. These midwives attend very many private cases (about 1,000 annually, it is suggested), over which the Charity exercises no control, but which are considered by the general public to be under the direction of the Charity. What would be thought—to revert to our former illustration—if a house-surgeon for his own gain was not only allowed to undertake private work, but to be assisted therein by other qualified surgeons and some unqualified assistants? Further, the house of the Charity is provided for the matron-midwife that the Charity's work may be properly performed, not that other similar practice for anyone's private gains may be conducted therefrom.

Upon whom does the responsibility for this state of things rest? Undoubtedly upon the ten ladies who form the Committee of Management of the Charity, under whose protection these procedures are sheltered. They, and they alone, are responsible, since the matron-midwife is in their service. They should withdraw the permission under which she and her assistants carry on this private work. Unfortunately at present the Committee refuse to take such action, but we may hope that they will shortly become convinced of the extreme impropriety of these procedures. If they should yet remain unconvinced, the facts should be brought to the attention of subscribers to the Charity, and it should be pointed out that the Charity is at present countenancing a very improper procedure.

Meanwhile, have the medical officers of the Charity no voice in its management? Have they communicated to the "Committee of ten" their views respecting the doings of the matron-midwife? Again, we are informed that a medical man has been found to assist the midwives; surely he should at least join in making representations to the Committee and the supporters of the Charity.

The report of this Charity publishes a list of benefactors (including those from whom it has received legacies, donations, or collections at places of worship, etc., since the formation of the Charity) and annual subscribers. These latter receive one recommendation for each guinea contributed, and donors of 10 guineas one recommendation annually for life. There appear to be no governors, in the ordinary acceptation of the term, and the subscribers have no direct voice in the management of the Charity. Vacancies in the Committee of Ladies are filled by new members being introduced and voted for by the members of the Committee; apparently not by the annual subscribers.

The funds of the charity are derived from: (1) Legacies, (2) dividends, (3) donations and annual subscriptions, only the last two being practically certainties.

The number of annual subscribers is about 210, of whom about 112 pay 21s. or more, and the rest smaller sums.

Triennial Balance Sheet.
(October 1st, 1894—September 30th, 1897.)

Receipts.	£	s.	d.	*Expenditure.*	£	s.	d.
Balance from last report	88	19	9	Patient's food	235	4	7
3 years' subscriptions ...	664	11	6	Accoucheurs' fees ...	170	9	6
Legacies	1,503	10	4	Salaries, rents, drugs, etc.	257	4	1
Dividends from invested funds	118	2	0	Invested in Consols ...	1,303	10	4
				Balance in bank	422	12	11
Bankers' interest	23	2	10	In hands of Treasurer ...	9	5	0
	£2,398	6	5		£2,398	6	5

As regards the accouchers' fees before 1895, whilst the cases were divided between two medical practitioners and one midwife, the former received 10s. 6d. for each case attended and the midwife a smaller fee (6s.). Since 1895 the midwife has been given 6s. for each case attended, and in difficult labours where it has been necessary to call in one of the three medical practitioners now attached to the Charity, these latter have received fees for their assistance.

The matron-midwife holds the certificate of the London Obstetrical Society, and the two certificated accoucheuses who co-operate with her are also certificated by the same Society.

THE PLAGUE.

Bombay.

Although the number of plague deaths during the past week has not materially increased, there is no sign of abatement. A few cases of plague which occurred at the gold mines led to an exodus of the miners and a serious scare, for the most part wholly unfounded.

Calcutta.

The Chamber of Commerce has addressed the Bengal Government regarding the recent repulsion of the steamer *Bhandara* from Zanzibar. The contention is that Sir A. Hardinge's action was a contravention of the terms of the Venice agreement regarding plague. The British authorities subscribed to the terms, and now a governor of a British protectorate is the first to set the law at defiance.

Samarkand.

The latest report from the Samarkand district is that plague is dying out. The statement which has appeared in several publications that 70 Russian doctors died of plague at Samarkand is most probably due to some error in transmission. Such a mortality amongst doctors, or attendants upon the sick from plague, is unheard of. A triple cordon is still maintained round the infected district. An enormous number of people have, it is said, been carried off by the disease.

Transvaal.

The coolie who developed symptoms of plague died at Kaapmuiden, near Barberton, and a *post-mortem* examination tended to confirm the suspicion that he really died of plague.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF SPECIAL MEETING.

A Special Meeting of the Council will be held at the office f the Association, No. 429, Strand, London, W.C. on Friday, e 10th day of March next, at 2 o'clock in the afternoon, to consider the recommendation of the special meeting of the Parliamentary Bills Committee held on February 3rd.

Francis Fowke, *General Secretary.*

429, Strand, February 15th, 1899.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1899.

Meetings of the Council will be held on April 12th, July 12th, and October 11th, 1899. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 23rd, June 22nd, and September 21st, 1899.

Election of Members.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

Francis Fowke, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Members are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

Metropolitan Counties Branch: North London District.—A meeting of this District will be held at the London Temperance Hospital, Hampstead Road, on Wednesday, March 8th, at 4.30 P.M. Dr. Morton will preside. Mr. L. A. Bidwell will read a paper on the Surgical Treatment of Gastric Ulcer. Cases of interest will be shown in the wards of the hospital. The District Committee will meet at 4.15 P.M.—H. J. Macevoy, Brondesbury, N.W., Honorary Secretary.

South-Eastern Branch: East Sussex District.—The next meeting of this District will be held at Brighton on March 23rd. Members wishing to make communications to the meeting are requested to inform the Honorary Secretary before March 10th.—J. W. Batterham, Bank House, Grand Parade, St. Leonards, Honorary Secretary.

South-Eastern Branch: East Surrey District.—The next meeting of this District will be held at the Queen's Hotel, Upper Norwood, on Thursday, March 9th, at 4 P.M.; Mr. E. Beaumont, of Upper Norwood, in the chair. Dinner at 6 P.M.; charge 7s., exclusive of wine. Agenda:—(1) Minutes of Reigate meeting. (2) To decide when and where the next meeting shall be held, and to nominate a member of the Branch to take the chair thereat. (3) Election of Honorary Secretary. (4) To receive nominations for representatives on the Council of the Association. The following papers, etc., will be read,—Dr. Patrick Manson: Demonstrations on Malaria. Mr. Marmaduke Sheild: Some points in the Diagnosis and Treatment of Nasal Polypi. Mr. Lewis A. Tallerman: Demonstration of the Tallerman Treatment by the Localised Application of Superheated Dry Air. Messrs. Allen and Hanburys will exhibit Surgical Instruments, etc. Members desirous of exhibiting specimens or reading notes of cases are invited to communicate at once with the Honorary Secretary. All members of the South-Eastern Branch are entitled to attend, and to introduce professional friends. The Honorary Secretary would be much obliged if members would kindly inform him by postcard whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner.—Henry J. Prangley, Tudor House, Anerley, Honorary Secretary.

Lancashire and Cheshire Branch.—A meeting of this Branch will be held in the Medical Institution, Mount Pleasant, Liverpool, on Tuesday, February 28th, at 2.30 P.M. Agenda.—The Secretary will move: "That every accredited representative of this Branch, when attending a Committee or Subcommittee meeting in London on the business of the British Medical Association, and every member of a deputation to London, appointed by this Branch or by the Council of this Branch, on Association or Branch business, shall be paid out of the funds of this Branch his first-class return railway fare. However, this regulation shall not apply to representatives of this Branch on the Council of the Association when in attendance at meetings or on deputations at or about the times of the Council meetings in London, or to the attendance of anyone during a meeting of the Association, or to anyone when his fare or expenses are paid out of the funds of the Association." Dr. Carter will move: "That the Lancashire and Cheshire Branch of the British Medical Association desires to express its opinion that the efficient primary vaccination of every child is necessary in order to afford protection against outbreaks of small-pox; that stringent measures should be adpted to enforce such efficient primary vaccination; and that no certificate should be recognised unless the requirements of the Local Government Board have been fully complied with." Dr. J. Brassey Brierley will move: "That seeing the persistent refusal of the promoters of the Midwives Registration Bill to secure efficient medical and lay control over their proposed practitioners, the Lancashire and Cheshire Branch of the British Medical Association declines to take any further part in this question, and will use all its power to defeat this Bill or any modification of it." Medical and Surgical Communications:—Mr. W. Mitchell Banks: Some Surgical Cases (with patients). Dr. C. Thurstan Holland: Case of Lupus treated by *X* Rays (patient). Dr. G. C. Stopford Taylor: Cases of Lupus and Favus (patients). Mr. Rushton Parker: Case of Plexiform Neuroma of Eyelids, Excision; Ptosis completely corrected by Plastic Operation. Mr. W. Thelwall Thomas: Four Cases of Tumour of the Urinary Bladder, diagnosed by Cystoscopic Examination, and operated upon. Mr. R. W. Murray: Case of Suppurative Peritonitis. Mr. Robert Jones: Cases of Foreign Bodies in the Œsophagus. Mr. Damer Harrisson: Two Cases of Traumatic Epilepsy (with patients); Three Cases of Intestinal Obstruction. Dr. Wm. Bain: The Relative Excretion of the Nitrogenous Waste Products in a Case of Liver Abscess. There will be an exhibition of patients in the Library, from 2.30 to 3 P.M., by Drs. and Messrs. Mitchell Banks, Barendt, Barr, Damer Harrisson, Robert Jones, R. W. Murray, Rushton Parker, Paul, Stopford Taylor, Thelwall Thomas, etc. There will be an exhibit of New Drugs and Chemicals, Medical and Surgical Instruments, etc. Arrangements will be made for a dinner at the Adelphi Hotel, at 6 P.M., if twenty members notify their intention of being present. Tickets (wine not included), 5s. each. In order to facilitate arrangements, the Secretary will feel much obliged if every member who intends to be present at the meeting will kindly inform him whether he purposes being present at the dinner. Those gentlemen who intend coming, but who on the day of meeting may find it impossible to do so, will not be held responsible for their dinner tickets. The Secretary is very anxious to get the number as correctly as possible. A Council meeting will be held at 2 o'clock on the day of the meeting. Those who wish to become members of the Branch, or of the Association and Branch, should communicate with the Honorary Secretary at once. There are over 1,500 members of the medical profession in these two counties who are not members of the British Medical Association, and nearly 400 who are members of the British Medical Association, but not of this Branch. There is thus a large field in which members can render valuable aid in stimulating the growth and importance of this Branch. The Secretary hopes that members will induce as great a number of these as possible to join the Association and Branch. Anyone wishing an application form can have it by applying to the Secretary, **JAMES BARR**, M.D., 72, Rodney Street, Liverpool.

MIDLAND BRANCH: LINCOLNSHIRE DISTRICT.—A meeting of this District will be held at Spalding on March 9th, in the Johnson Hospital, at 2 P.M.; Dr. W. A. Carline, President. Communications:—Dr. G. M. Lowe: Fæcal Accumulations simulating Disease. Dr. Reginald Farrar: Labourers' Boots. Dr. E. C. Kingdon: Some Clinical Features of Acute Glaucoma. Mr. G. Lacy Barritt: Notes of (1) Brain Injury by a Ramrod passing through the Skull; and (2) Acute Suppurating Appendicitis; Abdominal Section; Recovery. Lunch at 1 P.M., at the White Hart Hotel; 2s. 6d. each. Those who intend to be present will kindly send an intimation, on or before Tuesday, March 7th, to Dr. **MANSEL SYMPSON**, Deloraine Court, Lincoln, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—A clinical meeting will be held on Tuesday afternoon, February 28th, at the Hospital, Swansea. —A. **SHEEN** (Cardiff), D. **ARTHUR DAVIES** (Swansea), Honorary Secretaries

EDINBURGH BRANCH.—The annual winter meeting of the Edinburgh (Fife and Lothians) Branch, in conjunction with other Branches, will be held in the Royal Infirmary, Edinburgh, on Friday, March 17th. A Medical Congress for Clinical Demonstrations will be held at 4 P.M. The museum (pathological and apparatus will be open from 3.30 P.M. onwards. Dinner in the Royal Hotel, Princes Street, at 6.30 P.M.; dinner ticket, 5s. Intimation of exhibits (clinical or other) should be made to **JAS. HODSDON**, M.D., 6, Chester Street, Edinburgh, or R. W. **PHILIP**, M.D., 45, Charlotte Square, Edinburgh, Honorary Secretaries.

SYDNEY AND NEW SOUTH WALES BRANCH.

THE regular monthly meeting of the Branch was held in the Royal Society's Room on Friday, December 23rd, 1898, Dr. W. **CHISHOLM**, President, in the chair. There were twenty-three members present.

Confirmation of Minutes.—The minutes of the previous meeting were read and confirmed.

Communication.—The Hon. Dr. **CREED**, M.L.C., read a paper entitled My Experience of Hypnotic Suggestion as a Therapeutic Agent. Two patients were exhibited and examined by the members. A discussion ensued in which the following gentlemen took part: Drs. **CRAGO**, **ARTHUR**, **THRING**, **CHISHOLM**, and **BRADY**. Dr. **CREED** replied.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

A MEETING of this Branch was held in Aberdeen on Wednesday, February 15th, Professor **FINLAY** in the chair.

New Members.—Dr. Walter Crombie (5, Golden Square, Aberdeen), Dr. George Mellis Duncan (68, Schoolhill, Aberdeen), and Dr. W. Sinclair (Ellon) were after ballot unanimously admitted members of the Branch.

Communications.—Dr. **OGSTON** (Rosemount) read notes of a case of Puerperal Septicæmia in the treatment of which antistreptococcus serum had been employed. He also described a case of Suppurating Appendicitis in which the serum was found useful.—Dr. **SCOTT RIDDELL** showed a patient on whom he had performed Osteoplastic Resection of the Foot by the Wladimiroff-Mikulicz method three months ago. He also exhibited masses of Synovial Lipoma removed from the knee-joint in a case of hydrops articuli of two years' standing. Dr. Reddill also read notes of a case of Carcinoma of the Kidney, and showed the kidney, which weighed 14 oz. and was successfully removed by nephrectomy two months ago.

JOINT COMMITTEE OF THE BRITISH MEDICAL AND MEDICO-PSYCHOLOGICAL ASSOCIATIONS.

THE following is the text of the draft clause for providing temporary care of persons suffering from incipient unconfirmed mental disease together with a form of certificate which have been drawn up by the Joint Committee of the British Medical and Medico-Psychological Associations on Incipient Insanity, and submitted to the Lord Chancellor:

DRAFT CLAUSE.

1. Where a medical practitioner certifies that a person is suffering from mental disease but that the disease is not confirmed, and that it is expedient with a view to his recovery that the patient should be placed under the care of the person whose name and address are stated in the certificate for the period also therein stated not exceeding six months, then during that period the provisions of Section CCCXV of the Lunacy Act 1890 shall not apply.

2. A medical practitioner who signs such certificate shall within three days after signing the same send a copy thereof to the Commissioners, and it shall be lawful for any Commissioner to visit the patient. The person under whose care the patient is placed shall not be the person who signs the certificate.

3. The person who receives a patient under such certificate shall within ten days after the expiration of the period mentioned in the certificate, or if he ceases to have the care of the patient under the certificate at an earlier date, then within ten days after such earlier date send a report to the Commissioners stating whether the patient recovered, and if not, in what manner he was dealt with when the person making the report ceased to have the care of him under the certificate.

CERTIFICATE.

I [*insert full name and address*] a duly registered medical practitioner certify that [*insert name, address, and description of patient*] is afflicted [*state the nature of the disease*], but that the disease is not confirmed, and that I consider that it is expedient with a view to his [*or her*] recovery that he [*or she*] should be placed under the care of [*insert full name and description*] at [*insert full address of the place where the patient is to be received*] for a temporary residence for a period of [*specify a period not exceeding six months*] from the day of 18 .

Dated Signed

SPECIAL CORRESPONDENCE.

LIVERPOOL.

Lecture on Vaccination and Small-pox.—Appointment of Surgeon to the Northern Hospital.

UNDER the auspices of the Ladies' Sanitary Association Dr. T. R. Bradshaw recently delivered a lecture on small-pox and vaccination. He reminded the audience that we were in danger of forgetting the horrors of small-pox as it was known to our ancestors and as it is still known where vaccination is neglected. Various authorities were quoted to prove its extreme frequency and terrible mortality, and the great disfigurement it wrought until Edward Jenner's discovery. Dr. Bradshaw based his argument in favour of vaccination chiefly on three grounds: (1) The enormous falling off in the mortality from small-pox which coincided with the introduction of vaccination into this and other countries; (2) The experience of recent epidemics and of the French and German armies, which showed that the mortality in communities and individuals varies inversely with the degree in which effective vaccination has been performed, and (3) the complete immunity enjoyed by doctors, nurses, and others in small-pox hospitals after they have submitted to revaccination. In the Liverpool Small-pox Hospital, 630 cases of small-pox had been admitted during the last seven years, and 128 cases wrongly suspected to be small-pox: 434 persons had been employed in various capacities about the institution, of whom fewer than 6 had had small-pox before joining. Of this large staff only 2 contracted small-pox, and these were wardmaids who had inadvertently entered the wards for a few minutes before they were revaccinated. The 128 patients admitted with suspected small-pox were all promptly vaccinated, and not one caught small-pox, although in some instances they had spent some hours in the wards. Of 100 students and medical men who had attended the practice of the hospital and were revaccinated not one had caught the disease. The immunity did not extend to other fevers, such as typhoid, typhus, etc., of which there had been 26 cases among the members of the staff. It was impossible to explain the diminished fatality of small-pox by improved sanitation, first because it was by no means proved that sanitation had any material influence upon the spread of the disease; and, secondly, because other diseases which were known to be largely dependent on insanitary surroundings had not diminished in anything like a corresponding degree. There was only one condition which was constantly found in communities which escaped small-pox, and was never found in communities which suffered from it, and that was efficient vaccination. The lessons to be drawn from recent epidemics were: (1) That vaccination in infancy protects up to 10 years of age, with a high degree of probability against attacks of small-pox, and at most with certainty against death; (2) that even up to middle life it continues to give protection against attacks, though in a rapidly-decreasing degree; and (3) that revaccination at about 10 years of age is necessary in order to maintain a high degree of protection against accidental exposure. They knew that there was an enemy at the gate; that the antivaccinators, themselves protected against small-pox by vaccination in childhood, were striving by every means in their power to deprive the generations to follow them of a priceless blessing. Dr. Bradshaw suggested the desirability of taking steps to form a branch of the Jenner Society in Liverpool.

The office of Surgeon to the Northern Hospital, which was rendered vacant by the death of Mr. Arthur H. Wilson, has been filled by the election of Mr. R. W. Murray, F.R.C.S., Surgeon to the Infirmary for Children.

BRISTOL.

The Jubilee Memorial Convalescent Home.—The Superintendency of the Fever Hospital.—A Dissatisfied Patient.

THE news that appeared in the official letter of the Mayor and Hon. Secretaries that the Convalescent Home matters were progressing favourably was received with satisfaction, as expressions of surprise have been heard about the delay in opening the Jubilee Memorial. We now learn that the trust deed has been duly executed and the property conveyed to the trustees. To the original property, which was a large school building with grounds, an addition has been made which will be found advantageous. Of the donations promised £60,000 has been paid, leaving a balance of £2,554 yet to come. The house and grounds were bought with another donation of £20,000. The proposed alterations to the structure are: A new entrance by which the house can be divided into halves, the stable to be converted into a laundry, a system of steam heating, and the installation of electric light. The letter suggests that some generously inclined citizen should furnish the building throughout, thus saving the Committee a very considerable outlay.

By the appointment of Dr. Davies, the Medical Officer of Health for the City, at the original salary proposed, to the post of Superintendent to the Fever Hospital which will shortly be opened, the Council have gone back upon a resolution passed a month or so ago. This is a satisfactory ending to the matter, though it is much to be regretted that several things were said when the matter was first mooted that had better have been unsaid. No doubt some members of the Council were influenced in their voting by the knowledge that the appointment of anyone other than Dr. Davies meant a larger salary.

A case of some interest was heard before Mr. Justice Mathew at the Assizes on February 21st. The plaintiff claimed damages against Mr. H. Hayman, a dentist, and Mr. H. Kendale, a surgeon, for negligence. It appeared that he consulted Mr. Hayman about his teeth, and was recommended to have some extracted under ether. This was accordingly done, but it was alleged by the plaintiff that the defendant, Mr. Hayman, removed more teeth than he, the plaintiff, had agreed to have removed, and that Mr. Kendale gave him too much ether, and left him before recovery in a dangerous condition of collapse and exhaustion. The evidence on the plaintiff's side went to show that the plaintiff was in feeble health from malaria contracted abroad; that after the anæsthetic he did not recover, and that the gums continued to bleed, and that a fragment of tooth was left in the mouth. The defendants both swore that the plaintiff had sufficiently recovered to speak intelligibly before they left the house, and that in the event of help being required the plaintiff's friends had their addresses, of which no advantage was taken. There were several medical witnesses on each side, one saying that he would never advise eight teeth—the number extracted in this case—to be drawn at one operation. The jury found for the defendants with costs after about two minutes' deliberation.

MELBOURNE.

Confiscation of Plague Bacilli.—A Nail in the Brain.—The Late Miss Castilla.—"Pass and Pluck" in the Melbourne Medical Faculty.

IN consequence of the bubonic outbreak at Vienna the Victorian Government have been on the alert to prevent any possibility of the plague entering the country. Recently the Board of Public Health were informed that Dr. Leonard Haydon, who had been sent out from England by the British Government to India to deal with plague, had arrived about six months ago from India, and was staying with his brother, Dr. Gerald Haydon, and that he had in his possession a number of tubes containing cultures of the bacilli of the bubonic plague. The Government, acting on the advice of the Board of Health, regarded it as dangerous to the public health to permit experiments to be conducted with the bacilli in the Colony, and despatched an officer of the Board to ascertain if the report was correct, and, in case it were so, to demand the preparations from Dr. Haydon. The bacteriologist refused to part with his bacilli unless he received £300 compensation. No provision having been made by the Legislature to meet such a case, the Customs authorities hit on the ingenious idea of confiscating the specimens on the ground of their having been imported in gelatine, which is subject to a duty of 3d. per pound, and as this duty had not been paid the department was privileged to seize the gelatine. Ultimately, under strong protest, Dr. Haydon surrendered his property. The officer empowered to obtain the bacilli had special powers granted to him so that he would have been able to strain the law to its utmost in the execution of his instructions. "Law or no law," the Minister of Health declared to an interviewer, "the bacilli must be destroyed." Placed in a vessel containing kerosene, the result of 12 months' scientific work was destroyed. Dr. Haydon states that he brought the bubonic plague bacilli from India to Victoria with the sole object of protecting the people of this colony in the event of an outbreak of plague occurring, and not for experimental purposes, and that the officers of the Public Health Department not only knew that he had the cultures in his possession, but actually inspected the tubes immediately after his arrival in July last, and obtained from him information how to deal with the plague by means of inoculations should it get a foothold in Victoria. He consequently expressed natural indignation that after so long a period he should be treated as a smuggler and his work of over 12 months destroyed, without apparent reason. Dr. Haydon holds a certificate from the Chairman of the Plague Committee that he was specially deputed to conduct a series of experimental investigations on plague bacilli in the laboratory of Grand Road Hospital, and was entrusted with the diagnosis of doubtful cases in the surrounding districts. When he showed the tubes to the health officers here no objection was then raised to his retaining possession. He regrets that his work has been destroyed unnecessarily, and what is more important, the material that would have enabled him to provide an antidote for immediate use if an outbreak had occurred here. The only known antidote is the dead germ and its products, and he had great trouble to keep pure cultures for that purpose. He believed that there never was any danger at any time, and he stigmatises the whole present action of the Victorian authorities as absurd. Our commercial intercourse with India may give rise to some apprehension that a vessel from an infected port may by means of rats import the disease and spread it. The means of dealing with the disease effectually, should it at any time break out, is taken away, and although there may be a fearful potency for mischief in the germ there is also a potency for good in it as an antidote. Until we know the details of what brought about the fatalities in Vienna we can hardly sit in judgment, but Dr. Haydon thinks that they had not taken the precaution of inoculating themselves before beginning their investigations. The rate of attack and death was very small amongst those inoculated, but amongst the others it was 90 per cent. Other doctors and himself were inoculated and were not in dread of contracting the plague. The only thing not determined was the period of immunity enjoyed by those inoculated. His own germs were not virulent, but were the attenuated virus which is used for inoculation. They were perfectly harmless when destroyed, and he would have swallowed them if necessary to prove it. Dr. Haydon made a demand for compensation, insisting on the unfairness of the authorities in suddenly seizing and destroying his property after allowing him to import it.

Dr. J. E. Neild, in making a *post-mortem* examination of the body of a female inmate of one of our lunatic asylums, found, firmly embedded in the top of the skull, and penetrating about half an inch directly into the actual brain substance, a bootmaker's nail of the sort generally used in the soles of very heavy boots. There were no signs of any inflammation having at any time been set up, and there was no indication that the insanity of the woman had in any way resulted from the injury. The woman had suffered from dementia for fourteen years. The brain was soft, but there was no evidence that a nail in the brain contributed to the disease. Some little time back a young man walked about a mile to the Melbourne Hospital with a steel ramrod sticking through his skull, which he had shot accidentally from his gun. In a few weeks he was about again without any detriment to his faculties.

Miss Amy Castilla, M.B., Ch.B., who recently died from pleurisy and pneumonia, was the granddaughter of Señor José de Castilla, who took refuge in England, and became the younger Pitt's private secretary. Miss Castilla's mother was Miss May Robertson, the niece of Patrick Robertson, the friend of Scott and Lockhart. Miss Castilla first entered the Alfred Hospital as nurse, and on obtaining her certificate she took up medicine, and was one of the first women graduates at the Melbourne University. She was then elected resident at the Women's Hospital, and afterwards obtained the position of resident at St. Vincent's Hospital, being the first woman who has ever held the position of medical officer in a general hospital. She was one of the founders of the Victoria Women's Hospital, and was actively and keenly interested in its progress.

The following figures form an interesting comparison of those who went up for examination in Medicine at the Melbourne University and of those who failed: First year medicine: number of students who presented themselves in 1897 were 61, passed 27; 1898, 62, passed 18. Fifth year medicine: number who presented themselves in 1897, 49; of these, 28 passed; 1898, out of 30, passed 8.

CORRESPONDENCE.

THE NEED FOR FURTHER VACCINATION LEGISLATION.

SIR,—With the general intention of the resolutions drawn up by the Parliamentary Bills Committee in reference to the Vaccination Act of last year, and adopted by the General Medical Council, no doubt everyone will agree, and will also endorse the pious expression of hope that the Government will introduce a Bill this session dealing with the question of revaccination.

I venture, however, to think that unless some strong and combined action is taken by the medical profession, there is a great fear that nothing will be done; and I would suggest either that a special general meeting of the Association be called to consider the whole question, or that all the Branches be asked to pass resolutions expressing their views on the subject. Such an expression must, I believe, have great weight with the Government, and had it been given last year I have but little doubt the present Bill would have been withdrawn.

I would therefore urge that some decisive steps should be taken without any delay, and that the Government should be petitioned to introduce a Bill dealing not only with revaccination, but also with the equally important question of efficient primary vaccination.—I am, etc.,

Malvern. HARRY E. DIXEY, M.D.

MIDWIVES BILL.

SIR,—The question of legislation on behalf of midwives is about to enter upon its last stage. From the very first the promoters of legislation have sought the protection of the woman of the diploma. Later, the opponents of legislation sought the control of all women who attended cases of labour whose names were not upon the *Medical Register*. The proposed legislation is a compromise.

An experience of the subject, which may be fairly claimed to be many-sided, has led me more and more to the firm belief that if the public weal is to be considered of the first importance any legislation which invests uneducated women with a diploma entitling them to practise midwifery, even under restrictions, is fraught with very great danger. My own experience is further supported by the facts frequently published in the newspapers. It is, perhaps, of some utility to consider how the present state of affairs originated.

The Obstetrical Society of London—or, to be correct, its Council—has for many years sold a diploma to those who passed an examination. It has also been the main fomenter of agitation in favour of the midwife from the outset. The proposal for legislation has therefore come from the medical profession, or from part of it.

The Society—judging from Dr. Cullingworth's address—has sold its diploma without any code of rules and regulations to be observed by midwives holding it until the present year. It is a matter of difficulty to distinguish between the Society which covers the practice of midwifery by persons who are not upon the *Medical Register* by means of a diploma from which an income is derived, and medical practitioners who cover the practice of unqualified assistants and derive an income from their work.

However, the position of affairs now arrived at is this: Registered practitioners individually are not allowed to employ unqualified assistants. Associations of registered practitioners are allowed to cover the practice of unqualified practitioners in midwifery by means of a diploma, from the sale of which some registered practitioners derive profit.

To put matters in order, legislation is demanded by such associations, and actively pushed forward. The main body of the profession, at first somnolent, is at last roused, and protests, and in the result a compromise is so far embodied in a Bill.

It is a matter of common notoriety that the restrictive clauses inserted by the British Medical Association are practically not accepted by the principal promoters of legislation, and moreover that the House of Commons is not a body which is likely to pass restrictive clauses in such a Bill.

If a case is made out for the resuscitation of the midwife, the House of Commons will probably not restrict her practice. This condition of affairs is indeed serious, and it is not easy to find a remedy so late in the day.

The birthright of the medical profession has been sold for a mess of diplomas to midwives. If it had not, very useful legislation might have been put forward, solely upon the basis of control over the practice of all persons who practised midwifery, and who are not registered medical practitioners, and legislation upon this basis would have had nothing but support from the medical profession. However this may be, I do not believe for an instant that any attempt to pass the restrictive clauses in the present Bill will be successful, and, as a matter of strategy, if the medical profession desires to secure the insertion into the Bill of proper restrictions, it will have to make it clear to the members of the House of Commons that control over the practice of midwives is what is required, and not the formation of a midwife brigade sanctioned by Act of Parliament.

If the present Bill is passed I can see no end to the practical difficulties of its working. A Bill of very few clauses could be framed to control the midwife and to effectually protect the ignorant. It requires a Bill of the present size to conceal the intentions of the real promoters and to do a great deal of harm.—I am, etc.,

Hatfield, Feb. 21st. LOVELL DRAGE.

THE ROYAL ARMY MEDICAL CORPS.

SIR,—In the BRITISH MEDICAL JOURNAL of January 14th "M.B." takes exception to my proposal to alter the ages at entry to 22 to 25, saying such an alteration would "entirely exclude" candidates who hold degrees in Arts or Science. I can only say that in my own case I was a B.A., M.B. (first place), T.C.D. before I was 20, and many men qualify under 22.

The great objection to men entering the army old is that they never can hope for promotion to administrative rank, and, no matter how high their qualifications, must as a rule remain junior all their service to men who have passed in senior to them—for example, the last man of a batch, perhaps only an L.S.A., will be senior to the first man of the next batch, even though he be a B.A., M.B., F.R.C.S., etc. Again, men entering the army over 25 cannot be expected to acquire habits of discipline, etc., as well as younger men.

I note also remarks on page 128 regarding the pay of junior officers R.A.M.C., in India. Permit me to say I have made inquiries on this point, and find that even the combatant element agrees that the present arrangement is a scandalous one. Captains of infantry (the lowest paid of the combatant ranks) draw Rs.415 + Rs.30 contingent, while from three to five years' service captains R.A.M.C. draw but Rs.350. Note also that a veterinary-lieutenant draws Rs.400 from the start; in other words, gets Rs.50 per mensem more for attending horses than the medical officer for attending officers and men.

Indeed, the general treatment meted out to the R.A.M.C. in India is very bad. The *Pioneer* has just drawn attention to the fact that not one of the R.A.M.C. officers employed on plague duty got a decoration, while the officers I.M.S. were liberally dealt with. Again, the appointment of V.H.S., which used to be given equally to R.A.M.C. and I.M.S., are now nearly all bestowed on the local service.

Lord Lansdowne has done much for the R.A.M.C., but these are points that deserve his attention if he desires to see its ranks replenished with suitable candidates.—I am, etc.,

J. B. HAMILTON,
Lucknow, Feb. 1st. Surgeon-General R.P.

LUNACY LAW AND BORDERLAND CASES.

SIR,—I am sure that Dr. Handfield Haslett will pardon me if I venture, with your permission, to point out certain misconceptions under which he appears to have been labouring when writing the letter that appeared in the BRITISH MEDICAL JOURNAL of February 4th.

We are all agreed that it is advisable for all cases of unsoundness of mind, of whatever degree, to be treated under the supervision of the Lunacy Commissioners. Nor can I find in the leading article dealing with the matter in the JOURNAL of January 14th—to which he takes exception—any suggestion that such supervision should be evaded or ignored. But the point is this: that in the present state of the law it is impossible to obtain that supervision—apart from residence in asylums—without certifying our patients as lunatics. What the leading article referred to suggests, and what we all desire, is that it should be possible to notify such cases to the Commissioners—such notification carrying with it the invitation to exercise whatever supervision they think necessary—without certifying our patients as lunatics.

Dr. Haslett appears to think that there are no adequate objections to certification. But he must know that certification, although it does not necessarily mean incarceration in a lunatic asylum, does assuredly mean liability to such incarceration. Any person certified as a lunatic is liable to incarceration in a lunatic asylum. There is no power in the land to which a person, thus certified, might with confidence appeal to prevent such incarceration. There is not a single case on record where the Commissioners have stepped in to prevent it.

It is from this close and dangerous connection between certification and incarceration in a lunatic asylum that arise certain very grave objections to the system of certification now in vogue, that suffice to render it obnoxious, not merely to the patients and their friends but also to the public in general, and to such of us as have constantly to deal with cases of unsoundness of mind. In the first place this connection renders the system liable to abuse, which in the case of women might reach to an appalling extent, if all degrees of unsoundness of mind are to entail certification, or to render it possible. Hence the stubborn instinct against indiscriminate certification which the public are not slow to manifest on all occasions, and the weight of which they force us to recognise when, as juries, they sit in judgment on our actions. Secondly, this connection invests the whole treatment of unsoundness of mind with such horror in the minds of the patients and their friends that in all those cases of minor degrees of unsoundness of mind, of incipient insanity, and of the graver forms of hysteria, where early treatment might be applied with excellent results, the first thing that is thought of is to elude inquiry and to escape from treatment. Thirdly, this connection renders us liable to prosecution, because however unwilling agents we may be, we are compelled by the system of certification to become accomplices in the possible incarceration of the patient. It is true that recent enactments have, in appearance at least, rendered the process of certification less dangerous to the medical men concerned; nevertheless, it does remain one of considerable danger.

It is mainly for these reasons that the movement has arisen which has for its object the securing of a system of notification in England similar to that which already exists in Scotland. By such a system all cases of unsoundness of mind that offer no adequate reason for incarceration in a lunatic asylum could be perfectly well treated and supervised by the Commissioners. But a person thus treated under simple notification would never thereby be liable to incarceration in a lunatic asylum—a fact which would remove all the odium, the horror, and the danger that surround the present system, a system which is responsible for much of the increase of the preventable insanity of the present day. The matter has already been threshed out, and as Dr. Rayner reminds your readers in the JOURNAL of February 4th and as stated in your leading article of January 14th, the British Medical and Medico-Psychological Associations have given to the movement their sanction and have actually worked out a plan for carrying out the proposed innovation. It remains for us individual members of the medical profession to give effect to the counsels of our leaders, by refusing to certify and refusing to have any hand in the certification of patients for whose incarceration in a lunatic asylum there exists no sufficient reason. Only by such conduct and by stubbornly contesting the matter if necessary with the Commissioners can we hope to arouse the public to a sense of the necessity that exists for the modification of the law. That in so doing we are not acting against the spirit of the law is sufficiently proven by the verdict delivered in my case at Kingston.—I am, etc.,

Ewell, Surrey, Feb 14th. E. NOEL REICHARDT, M.D.Lond.

THE GENERAL MEDICAL COUNCIL AND THE HUNTER CASE.

SIR,—May I be permitted to point out that in the BRITISH MEDICAL JOURNAL of February 18th one of your correspondents has apparently misstated the decision in the case of Ellis *v.* Kelly in reference to Section XL of the Medical Act, 1858? Your correspondent makes, on page 441, two statements with reference to that case—namely (*a*) "It was there decided that a medical practitioner with a foreign degree could not be convicted for falsely describing himself as a Doctor of Medicine;" and (*b*) "the judges in Ellis *v.* Kelly rightly considered that Section XL was intended to protect the public against unregistered practitioners only, and refused to allow it to be used to prosecute a registered practitioner." Reference to the report of Ellis *v.* Kelly shows that both these statements are misleading.

The facts of the case were shortly as follows: Mr. Kelly was on the *Medical Register* as "Mem. Royal Coll. of Surgeons, England, 1856; Lic. Soc. Apoth. Lon., 1856;" and an information was preferred against him for having wilfully and falsely pretended to be, and taking and using the name or title of, a Doctor of Medicine. It was shown that Mr. Kelly possessed a diploma of the University of Erlangen in Bavaria. The Court held that the information had been rightly dismissed, the ground of their decision being that it was not proved that Mr. Kelly's erroneous assumption of the title of Doctor of Medicine was wilfully false. So far from deciding, as your correspondent states, that a registered practitioner with a foreign degree could not be convicted for falsely describing himself as a Doctor of Medicine they decided the precise opposite, the words of Baron Bramwell being: "It appears to me that on the true construction of that section" (namely, Section XL) "if any person wilfully and falsely called himself a Doctor of Medicine he would be liable to a penalty, although he was in reality a Member of the College of Surgeons or of the Apothecaries' Company and was so registered." Nevertheless the Court exonerated Mr. Kelly because they thought on the facts that he had called himself "Dr. Kelly" upon a reasonable though erroneous supposition that he had a right to do so; in other words, he had falsely called himself a Doctor of Medicine, but had not wilfully and falsely so called himself. Further proof that in their opinion a registered practitioner could be convicted for falsely describing himself as a Doctor of Medicine is afforded by the concluding words of Baron Bramwell's judgment, where he says of Mr. Kelly, "I do not say that if he continues to use that description after what has taken place he may not be responsible." That is to say, that a description which at the time of the action was not one for which Mr. Kelly could be held punishable under the section, would nevertheless if continued after the action render him so punishable; because after the action had brought his error to his notice a continued use of the description of Doctor of Medicine would be wilfully false, although he was registered as a Member of the College of Surgeons and of the Apothecaries' Company.

It would seem, then, that the statement of your correspondent which I have labelled (*a*) should be corrected by eliminating the word "not," and that the concluding words of his statement (*b*) should run, "refused to allow it to be used to prosecute that particular registered practitioner."—I am, etc.,

Cornwall Gardens, S.W., Feb. 21st. B. L. Richmond.

THE GENERAL MEDICAL COUNCIL AND THE SOCIETY OF APOTHECARIES.

Sir,—It appears to me that the whole question of the title of the L.S.A. resolves itself into one of "honesty." Does the L.S.A., when he puts "Physician and Surgeon" on his door-plate, wish to convey to the public mind that he is a medical man of superior qualification? Is he a man holding a superior qualification, does he belong to a College of Physicians, or is he rather one holding the lowest English qualification? Do the the public, when they say they wish to consult a "physician," mean that they want the opinion of an L.S.A.? Surely the judges speak the interpretation the public put upon the word "physician" when they say that a "physician" means a medical man of the higher grade. Why does not the L.S.A. speak the honest truth, and say that he is a Licentiate of Apothecaries' Hall, or that he is a general medical practitioner? Now that the General Medical Council is making a desperate attempt to put down all dishonesty in its own ranks that it may be better fitted to go into the court with clean hands against outside quackery, is it not the duty of the whole profession to rise and say that it heartily approves the action the Council has and is taking? Had the profession put aside all consideration for personal or family interest and thus spoken in 1886, against the Society which has gradually crept from behind the counter, and is giving all the present trouble, that Society would long ago have ceased to exist.—I am, etc.,

February 13th. "Honesty is the Best Policy."

A DEGREE FOR DOUBLY QUALIFIED MEN.

Sir,—I did not suggest that the English colleges should "water the capital" of their licences by granting the M.D. degree to the holders of the double diploma, as I did not suggest any terms upon which this additional degree or qualification should be granted. I simply said that the holders of the diplomas of the two Royal Colleges of London passed examinations in the aggregate quite equal to the examinations qualifying for M.B. and M.D. in other parts of the United Kingdom, and that they were entitled to an equivalent in degree value, and that the M.R.C.S. and L.R.C.P.Lond., conveying no title, but only a licence, were not a fair equivalent for the money and labour expended in attaining them—that is, as compared with the equivalent obtained for sometimes, I fear, a less expenditure of both money and brain force in some other parts of the United Kingdom.

In accordance with the terms of my suggestion it would be quite open to the combined Royal Colleges in London to insist on so many years of actual practice, and an additional examination and fee before granting this degree, which even need not necessarily be an M.D.; it might be an M.C.D. for instance, but whatever it was it should convey the legal right to be called "Doctor." No one can deny that a man who has passed the M.R.C.S. and L.R.C.P.Lond., been in actual practice, say, ten years, and then passed another examination in practical medicine or surgery or both, is not entitled to be called "Doctor," and that without a particle of injustice to any other holders of the title. The university M.D.s would still have their M.B.s and M.C.s, etc., to distinguish them.

I should like to see a union of the double diplomates of the kingdom with the avowed object of bringing about this desirable reform, which, after all, is only an act of the barest justice. In my opinion it would soon then be attained.—I am, etc.,

February 19th. A University Graduate.

Sir,—I, like "M.R.C.S., L.R.C.P.," whose letter is in the British Medical Journal of February 18th, went in for the London double because other men did so, my parents not knowing the ins-and-outs of medical qualifications. Since I have been qualified I have often heard the sneering remarks of university graduates, their open contempt, and their own superiority expressed, in discussing with the lay public the licences of doubly qualified men.

Many years ago one of my old teachers (M.D., M.R.C.P. Lond.) used to say the examinations of the Conjoint Board were much above the standard of most universities; the men themselves were more practical and certainly more conversant with their work than the average graduate. This has been borne out in my experience.

The time is ripe when all the London double men should combine and lay before the Royal Colleges their grievances. Everything must have a beginning, and nothing is gained in this world without perseverance; and unless something is done we shall have to live on, being subjected to the sneers of university graduates and the offensive remarks of the lay public, who, primed by some M.D., inquire what degree you possess. If the legal mind (*vide* Hunter's case) was so obtuse over the value of qualifications, is it surprising the lay mind is also?

The millinery (cap and gown) is quite a secondary consideration; let the Colleges give all the present doubly qualified men the M.D., and in the future all those who pass their finals.

I should be very pleased to join a society (if one could be formed) to protect and improve the status of the M.R.C.S. and L.R.C.P. men.

It would be interesting to know the proportion of London double men among the members of the British Medical Association.—I am, etc.,

February 19th. Another M.R.C.S., L.R.C.P.Lond.

Sir,—I must say that I do not quite see where the luck comes in in being educated in Trinity College, Dublin, that is unless luck is to be understood as meaning four years' hard work spent in obtaining a degree in Arts, without which the M.B. cannot be obtained. Personally, I think the proper course for *bonâ fide* university graduates to adopt would be to drop the M.D. on their door plates, and describe themselves as Dr. Blank, M.A., Physician and Surgeon.—I am, etc.,

Hammersmith, W., Feb. 19th. Marcus Eustace, B.A., M.D.

THE VISION OF SCHOOL CHILDREN.

SIR,—I am obliged to Dr. D. Love for calling attention to the fact that I omitted to state in my paper in the BRITISH MEDICAL JOURNAL of January 14th the proportion of the children examined who I considered ought to wear glasses. In submitting a report to the managers of the school, I classified the children as having good, fair, or bad sight. There were 292 children with good sight ($\frac{6}{6}$), including emmetropes and low hypermetropes, 56 with fair sight ($\frac{6}{10}$ or $\frac{6}{15}$), and 43 with bad sight ($\frac{6}{20}$ or worse in one or both eyes), besides 7 cases of children with corneal nebulæ, for whom glasses would have been of little use. I recommended that the third group only should be advised to have glasses, but the children in the second group would undoubtedly have been benefited by spectacles, though to a less extent.

I should consider the indications for the use of glasses in children to be: (1) Markedly defective vision hindering the education of the children; (2) headaches due to eye-strain in cases of hypermetropia; (3) strabismus. I am not aware of any evidence to show that in such cases the use of accurately prescribed glasses produces any evil effects. There is certainly abundance of evidence to show the relief experienced by the little sufferers from the above conditions when they are provided with suitable spectacles, and of unsuitable spectacles I do not speak. If Dr. Love is in possession of facts which show that the relief and added joy in living which are brought to these children by glasses are purchased at the price of future harm, in justice to the children and to the profession he ought to let us have these facts.—I am, etc.,

Rochdale, Jan. 31st. J. A. MENZIES.

THE TEACHING OF MIDWIFERY.

SIR,—It is pretty generally recognised that the teaching of midwifery from a clinical standpoint is far from what it should be. Reform is needed, and the question arises, How are we to secure this? The remedy lies with the General Medical Council. It is utterly useless to offer extra facilities to students so long as there is no compulsion. A few men will avail themselves of the opportunities, but the majority will only do work sufficient to gain their certificates. This seems to me a matter which should be taken up by the medical societies of Great Britain and Ireland, especially the obstetrical societies. If a strong memorial were submitted to the General Medical Council a change might be brought about.

Now that the medical course has been lengthened to five years for the very purpose of students gaining more clinical experience, it seems the height of absurdity that part of that clinical experience should not be in midwifery, the very branch of the profession which at least 95 per cent. of the graduates will be practising. I do not think it would be asking too much to have it made compulsory for each student to attend a course of three months' instruction at the bedside and in the labour room of a maternity hospital over and above the personal attendance of at least twelve cases.

The Glasgow Obstetrical and Gynæcological Society has taken the matter up, and I hope other societies will do the same.—I am, etc.,

ROBERT JARDINE, M.D.,
Glasgow, Feb. 9th. Physician to the Glasgow Maternity Hospital.

THE TRAFFIC IN ABORTIFACIENTS.

SIR,—In your article on the above subject you say medical men should make known that no drugs have any appreciable ecbolic effect, but surely we ought also to point out that to destroy a fœtus at the ninth month before birth, or within a few weeks after conception, is only a matter of degree, and that the destruction of that entity which in the ordinary course of nature would become a human being is not only illegal, but morally a murder.

You also refer to the use of measures to prevent pregnancy. Adopting such means cannot be called a crime, but is it a high state of morality? Is it a proceeding that should be recognised by the medical profession? Surely our moral obligation to the State and to our race points out the course it is our duty to follow when our advice is sought on this subject: Explain that preventive measures are harmful; point out that the physiological conditions of certain organs are such that a man can abstain for any length of time and yet become the father of healthy children; state that the only moral method is abstention; to use preventives is lowering to the moral tone, must of necessity degrade the husband in the eyes of his wife; or should it be the wife who is desirous of such methods, alienate from her that respect without which her husband can possess no affection; in short, produce such results that the happiness and morality of home life would be undermined, the high moral tone of our homes —which is the basis of all civilised communities—possess a canker at its root that would ultimately cause destruction to our race and the downfall of this great nation, as other vices have been the ruin of nations in the past.—I am, etc.,

Wimpole Street, W., Jan. 27th. GEO. STEELE PERKINS.

THE COEXISTENCE OF ZYMOTIC DISEASES.

SIR,—Since my first letter to you on the above subject published in the BRITISH MEDICAL JOURNAL of January 21st I have learnt that the theory I then referred to—namely, that one zymotic disease excludes (or tends to exclude) another, was strongly held, and emphatically taught by no less an authority than John Hunter.

I think this very probably accounts for the widespread credence which the theory, undoubtedly an erroneous one, has received in spite of the evidence of facts being altogether against it.

It is one more proof of the fallibility of even truly great men and the necessity for caution in accepting any theory or doctrine, no matter how high the source from which it emanates, until the evidence of facts has first been examined and found to support it.—I am, etc.,

Birmingham, Feb. 4th. C. KILLICK MILLARD, M.D., D.Sc.

THE SURGICAL AID SOCIETY AND ITS METHODS.

SIR,—With reference to Mr. H. Betham Robinson's letter under the above heading in the BRITISH MEDICAL JOURNAL of February 18th, will you permit me to say that the letter in question was the first intimation I had had of any dissatisfaction in regard to the case to which he therein alludes; but I am now in correspondence with Mr. Robinson and have no doubt that the explanation of the contingent circumstances will fully satisfy him as to the Society's action? In the meantime may I say for the information of your readers, and in answer to the question asked by Mr. Robinson, that this Society does, as stated in its prospectuses and other publications, accept the certificate of any duly qualified surgeon; and indeed a form for that specific purpose is provided at the foot of each letter of recommendation for the benefit of patients who are unable to attend here? Of course this rule, like all others, is liable to exceptions under some special circumstances.—I am, etc.,

RICHARD TRESSIDER, Secretary.
The Surgical Aid Society, Salisbury Square, Fleet Street,
London, E.C., Feb. 21st.

OBITUARY.

PROFESSOR LABOULBÈNE,

Paris.

DR. ALEXANDRE LABOULBÈNE, Professor of the History of Medicine in the University of Paris, who died recently at the age of 73, had won great distinction as a pathologist and an entomologist before he was appointed to the chair which he occupied for the last twenty years of his life. Born at Agen in 1825, he studied medicine in Paris, gaining the gold medal of the *internat* in 1853, and taking his doctor's degree in 1854. He became *agrégé* in 1860, and Physician to the Paris hospitals in 1863, and was elected a Member of the Académie de Médecine in 1875. In 1879 he was appointed professor of the history of medicine and surgery. He was the author of a large number of papers on pathological and entomological subjects, presented not only to the Académie de Médecine, but to the Société de Biologie, the Société Anatomique, and the Société Entomologique de France. In many of his researches he had as collaborators such men as Milne-Edwards, Brown-Séquard, Claude Bernard, Blainville, Davaine, Vulpian, etc. Laboulbène was the author of a *Traité d'Anatomie Pathologique*, a *Traité des Pseudo-membranes*, a *Faune Entomologique Française*, and numerous articles in the *Dictionnaire Encyclopédique des Sciences Médi-*

cales. In the domain of medical history he wrote with sound erudition on the Arabian physicians; the Hippocratic treatises; Galen and his works; Paracelsus and Van Helmont, etc. Professor Laboulbène was President of the Académie de Médecine in 1893.

ON February 13th there died in Birmingham, at the comparatively early age of 55, a familiar figure and well-known friend of the poor—Mr. W. T. CRABBE, F.R.C.S.Ed. For more than twenty-two years Mr. Crabbe was Medical Superintendent of the Medical Mission in Birmingham, an institution founded in 1875 to minister to the bodily welfare and spiritual wants of the poor of the city. Through all his life in Birmingham Mr. Crabbe devoted his energies to this work, and the success of the Mission is due in no small measure to his untiring devotion to its cause. Mr. Crabbe was born in 1844, and received his medical training at Edinburgh. After a distinguished career as a student he entered practice first at Lasswade, a suburb of Edinburgh, and then devoted himself entirely to mission work. This he undertook first at Aberdeen and then at Edinburgh, removing to Birmingham in 1876. From that time until his death he devoted his entire energies to the work of the mission, and took an active part in training medical missionaries for various parts of the world. His health began to fail in 1896, but after a long holiday he returned apparently restored, and continued in active work till two months ago. He leaves a widow and three sons, two of whom are members of the medical profession.

ROYAL NAVY AND ARMY MILITARY SERVICES.

THE STATISTICAL REPORT OF THE HEALTH OF THE NAVY FOR 1897.

THIS concise and elaborate report deals first with the total force serving afloat, and it is stated that the returns of 1897 are, on the whole, very satisfactory, as compared with those of the previous year, 1896, and the average of the last ten years, and, in fact, the lowest recorded since 1856, when the present system was adopted.

Death-rate.—In the year 1897 the total force numbered 80,540 officers and men, distributed thus:

Number.	Ages.	Percentage.
47,720	15—25	59.25
23,740	25—35	23.47
7,650	35—45	9.49
1,430	45 and upwards	1.77

Deaths.—The total number of deaths was 422—that is, 305 from disease and 117 from injury. Table 3 in Appendix I gives the ratios of deaths from disease and injury on the several stations. Although the death-rate of the total force is under that of 1896, of the average of the preceding ten years, or of any record since 1856, the invaliding rate shows an increase of 4.62 per 1,000 over that of 1896, and of 5.44 over the average for the last ten years. This is to be accounted for by the large amount of remittent fever contracted during the operations against the King of Benin. Of 33 cases of wounds in action 8 proved fatal and 2 were invalided. Out of 4 cases of yellow fever reported from the North American and West Indian stations, 3 died and 1 was invalided. On a more extended scale, that would be a heavy mortality.

Enteric Fever was on the increase in the Mediterranean, but the greater number was attributable to an outbreak on board the *Fonte* at Phalerum Bay.

Sickness Rate.—The total number of cases of disease and injury entered on the sick list was 72,068, being a decrease of 16.26 per 1,000 compared with the previous year, of 71.32 per 1,000 when compared with the average ratio of the last ten years. The number of days' sickness in the total force brings out the large amount of 1,117.782, but this was 0.43 days less than the previous year, and a decrease of 1.24 days in the average of the last ten years.

Invaliding.—The invaliding amounted to 2,576, or 31.98 per 1,000, an increase of 4.62 per 1,000 compared with the previous year, or of 5.44 in the decade. Out of the above number 1,553 were finally invalided out of the service, being in the ratio of 18.9 per 1,000 of the whole force, or 59.12 per cent. of the number invalided, showing an increase of 1.02 per 1,000 compared with 1896.

Venereal Disease.—Primary and constitutional syphilis showed a slight increase, but there was a decrease in gonorrhœa and its sequelæ. Nevertheless, amongst the general diseases, primary and secondary syphilis and gonorrhœa with its sequelæ take a prominent place. Thus, out of 11,906 cases, primary syphilis took up 3,956, secondary syphilis 2,177, and gonorrhœa 5,773. The number invalided for these diseases was 218, and there were 10 deaths; 6,367 of them are found in the records of the home stations. Estimating the cases of primary syphilis at 4,000, or 50 per 1,000, it may be said to affect 5 per cent. of the whole force. Of course the number would vary on different stations, but it is only fair, however, to notice that on reviewing the entries for venereal diseases in the greater number of naval hospitals both at home and abroad we see a slight decrease:

Hospital.	1897.	1896.	Decrease.
Haslar	2,429	2,471	42
Plymouth	940	1,068	128
Chatham...	450	500	50

On the home stations primary syphilis alone numbered 2,036 in 1897, as against 2,204 in 1896, showing a decrease of 3.66 per 1,000 when compared with previous year, and of 10.68 per 1,000 when compared with the average of the last 10 years. But at 53.86 per 1,000 and 50.2 per 1,000 we still reach over 5 per cent. of the total force.

Medical Officers' Returns.—It is pleasing to see so many quotations from the medical officers' returns with the insertion of their names. The excellent report of the Benin Expedition, quoted from the returns of the Principal Medical Officer, Fleet-Surgeon Michael Fitzgerald, C.M.G., may be noticed in particular. It commences with a very important statement under the head of "General Remarks," as follows: "The ships taking part in the Benin Expedition, under the supreme command of Vice-Admiral Sir Harry H. Rawson, K.C.B., were the *St. George*, *Theseus*, and *Forte*, which remained anchored off the mouth of the Forcados River, and *Philomel*, *Phœbe*, *Barrosa*, *Alecto*, *Widgeon*, and *Magpie* employed at various points up the river. In addition, the P. and O. ss. *Malacca*, fitted as a hospital ship, arrived off the Forcados River on February 8th, with a force of 120 Marines, under the command of Captain G. L. Byrne, R.M.L.I., and two subalterns; the hospital staff being composed of one fleet-surgeon and 1 staff-surgeon, with 4 surgeons, 3 nursing sisters, and 24 sick berth ratings." The medical and surgical incidents and remarks would amply repay perusal, as well as all the returns from the other stations; but we need only further remark here that while the statistical returns occupy 120 pages, the elaborately-wrought Appendix occupies 77.

ROYAL NAVY MEDICAL SERVICE.

THE undermentioned Surgeons, having completed twelve years' full-pay service, are promoted to be Staff Surgeons, dated February 28th: JOHN D. HUGHES, WILLIAM J. COLBORNE, JOHN H. STENHOUSE, M.B., JOSEPH A. MOON, ROBERT HARDIE, M.B., CORNELIUS BRADLEY, M.D., GEORGE T. COLLINGWOOD, RICHARD MILLER, M.B., JOHN E. COAD, M.B., HUBERT HOLYOAKE, GEORGE WILSON, M.B., WALTER BOWDEN, D.S.O. Their war services, as given in the *Royal Navy List*, are as follow: Staff Surgeon Moon was wrecked in H.M.S. *Victoria*, flag-ship of Vice-Admiral Sir George Tryon, K.C.B., Commander-in-Chief of the Mediterranean Fleet, which was sunk off Tripoli, on the Syrian coast, in collision with H.M.S. *Camperdown*, when the admiral, 21 officers, and 350 men were drowned, June 22nd, 1893. Staff Surgeon Collingwood served in the Naval Brigade landed by Rear-Admiral F. G. D. Bedford, C.B., from the *Raleigh*, *Alecto*, *Magpie*, *Satellite*, and *Widgeon*, at Bathurst, on the River Gambia, West Coast of Africa, in February, 1894, in co-operation with two companies of the 1st West India Regiment, for the punishment of Fodi Silah, a rebellious slave-raiding chief (mentioned in despatches); served also in the Naval Brigade landed under the command of Rear-Admiral Bedford, C.B., Commander-in-Chief, for the punitive expedition against Chief Nanna, of Brohemie, in the Benin River, resulting in the capture of his stronghold at Brohemie, September, 1894; also landed as Senior

Medical Officer in charge of the forces in the punitive expedition against King Koko, of Nimby, the chief town of Brass, on the River Niger, February, 1895 (general Africa medal, Benin River, 1894, Brass River, 1895, "Gambia, 1894," clasps). Staff-Surgeon Miller was awarded the bronze medal of the Royal Humane Society, February 28th, 1889. Jumped overboard from H.M.S. *Iron Duke* to the assistance of Corporal Hitt, R.M.L.I., took him a life buoy which was afterwards thrown, and brought him alongside the the ship; ship was anchored at Gibraltar; there was a westerly gale blowing and a very heavy sea running; no communication with the shore; was fully dressed at the time. Staff-Surgoon Wilson served in the naval brigade landed by Rear-Admiral Rawson at Mombassa from the *St. George*, *Phæbe*, *Barrosa*, *Racoon*, and *Blonde*, accompanied by 60 Soudanese and 50 Zanzibar Askaris, for the punishment of Mburuk, a rebellious Arab chief, resulting in the capture of his stronghold, M'weli, August 17th, 1895 (general Africa medal, "M'weli, 1895," engraved on rim); mentioned in despatches; also present on the occasion of the bombardment and capture of the Sultan of Zanzibar's palace on August 27th, 1896, by the Squadron of Rear-Admiral H. H. Rawson, C.B. Staff-Surgeon Bowden served in the naval brigade landed by Rear-Admiral F. G. D. Bedford, C.B., from the *Raleigh*, *Alecto*, *Magpie*, *Satellite*, and *Widgeon*, at Bathurst, on the River Gambia, West Coast of Africa, in February, 1894, in co-operation with two companies of the 1st West India Regiment, for the punishment of Fodi Silah, a rebellious slave-raiding chief; was in medical charge of the Royal Marines, volunteered to take charge of the ammunition, especially recommended by Colonel Corbet, Royal Marines, and mentioned in despatches; was present in medical charge at the bombardment and occupation of Gunjur, March 7th to 9th, 1894; D.S.O. for this service (general Africa medal, "Gambia, 1894," clasp).

The following appointments have been made at the Admiralty: **HENRY C. WHITESIDE**, Surgeon, to the *Pembroke*, for disposal, February 15th; **CHARLES C. MACMILLAN**, M.B., Surgeon, to the *Wildfire*, for disposal, February 15th; **GEORGE GIBSON**, Surgeon, to the *Tamar*, February 15th; **HAMILTON MEIKLE**, Staff-Surgeon, to the *Severn*, February 16th; **HAROLD R. OSBORNE**, Staff-Surgeon, and **HUGH CLIFT**, Surgeon, to the *Edgar*, undated, and to the *Royal Oak* on recommissioning; **LAWRENCE BIDWELL**, Surgeon, to the *Edgar*, undated; **MONTAGUE L. B. RODD**, Surgeon, to the *Vivid*, for Devonport Yard, undated; **FREDERICK J. LILLY**, Staff-Surgeon, to the *Resolution*, February 16th; **WILLIAM TAIT**, Staff-Surgeon, to the *Colossus*, temporary, February 16th; **JOSEPH R. MCDONNELL**, M.D., Staff-Surgeon, to the *Mars*, February 16th; **WALTER BOWDEN**, D.S.O., Surgeon, to the *Trafalgar*, temporary, February 28th; **ROBERT H. MORNEMENT**, Surgeon, to the *Eclipse*, February 28th.

ARMY MEDICAL SERVICE.

SURGEON-GENERAL C. F. CHURCHILL, M.B., Principal Medical Officer at Bombay, has been ordered to proceed to Simla to officiate as Principal Medical Officer in India, pending the arrival of Surgeon-General W. Taylor, M.D., C.B.

ROYAL ARMY MEDICAL CORPS.

THE undermentioned Surgeons on probation are appointed Lieutenants, dated January 28th:—**HAROLD P. W. BARROW**, **JOHN E. HODGSON**, **ALIC L. SCOTT**, **LIONEL E. L. PARKER**, **JAMES G. GILL**, **GEORGE W. G. JONES**, **MATTHEW H. G. FELL**, **GERALD H. GODDARD**, **WILLIAM B. WINKFIELD**, **THOMAS C. LANDER**, M.B., **JONAS W. LEAKE**, **JOHN W. H. HOUGHTON**, **DUNCAN E. CURME**, **HERBERT S. TAYLOR**, **GEORGE M. GOLDSMITH**, M.B., **RICHARD H. LLOYD**, **DAVID HARVEY**, M.B., **JOHN M. SLOAN**, M.B., **HENRY E. HAYMES**, **FRANCIS J. BRAKENRIDGE**, **GEORGE C. PHIPPS**, **NATHANIEL J. C. RUTHERFORD**, M.B., **GILBERT J. A. ORMSBY**, M.D., **HARRY D. PACKER**, **LAWRENCE HUMPHRY**, **ROBERT S. RODGER**, M.B., **WILLIAM W. SCARLETT**, **HORACE K. PALMER**, **ARTHUR O. B. WROUGHTON**, **FRANK ASHE**.

Captain **JOHN P. MORTON**, Madras Establishment, who was transferred to the half-pay list June 21st, 1898, is restored to the effective list from November 7th, 1898.

ARMY MEDICAL RESERVE.

SURGEON-CAPTAIN ANDREW A. ABRAHAM, 5th Volunteer Battalion the Durham Light Infantry, is appointed Surgeon-Captain, February 22nd.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL EDWARD PALMER, Bengal Establishment, in medical charge of the 9th Bengal Lancers, on being relieved by Captain H. B. Luard, M.B., 45th Sikhs, is directed to proceed to Miran Shah, and take up his appointment as Principal Medical Officer Tochi Field Force, *vice* Lieutenant-Colonel J. T. B. **BOOKEY**, Bengal Establishment, granted sick leave to England.

Major **SYED HASSAN**, M.B., Bengal Establishment, has retired from the service from January 1st. He was appointed Surgeon October 2nd, 1880, and Surgeon-Major, October 2nd, 1892. He was with the Burmese Expedition in 1886-7 (medal with clasp); with the Chin-Lushai Force in 1889-90 (clasp), and with the Miranzai Expedition in 1891 (clasp).

THE VOLUNTEERS.

THE undermentioned Surgeon-Lieutenants have resigned their commissions from February 22nd; W. R. **MARTINE**, 7th Volunteer Battalion the Royal Scots (Lothian Regiment); C. C. **BRODRICK**, 2nd (Prince of Wales's) Volunteer Battalion the Devonshire Regiment; E. H. **SUTCLIFF**, M.B., 4th Volunteer Battalion the Devonshire Regiment; P. J. **BARCROFT**, 1st Wiltshire Rifles.

Surgeon-Lieutenant-Colonel J. **MCALISTER**, 1st Volunteer Battalion the Royal Scots Fusiliers, has retired from the service, retaining his rank and uniform, February 22nd.

Mr. **RICHARD J. SWAN** is appointed Surgeon-Lieutenant in the 1st Surrey (South London) Rifles, February 22nd.

Surgeon-Captain T. A. **DODD**, 1st Newcastle-on-Tyne Engineers, is promoted to be Surgeon-Major, February 15th.

The undermentioned gentlemen are appointed Surgeon-Lieutenants in the corps specified, dated February 15th: **FREDERICK E. A. WEBB**, 3rd (Cambridgeshire) Volunteer Battalion the Suffolk Regiment; **REGINALD G. HANN**, 3rd Volunteer Battalion the Prince of Wales's Own West Yorkshire Regiment; **EDWARD T. MCDONNELL**, 2nd Tower Hamlets Rifles.

Surgeon-Lieutenant J. H. H. **WILLIAMS**, 1st (Pembrokeshire) Volunteer Battalion the Welsh Regiment, has resigned his commission, February 15th.

Surgeon-Captain H. G. **THOMPSON**, M.D., 1st Volunteer Battalion the Royal Fusiliers, is promoted to be Brigade-Surgeon-Lieutenant-Colonel on appointment as Senior Medical Officer to the West London Volunteer Infantry Brigade, February 15th.

PRECEDENCE.

RETIRED writes: Referring to Captain Trevor's remark on the "Army Doctor" in the BRITISH MEDICAL JOURNAL of February 11th, that he is now "a real live officer" with a military title, may I ask why he still occupies an inferior position at mess? *Vide* par. 944, Queen's Regulations, 1898. Under the heading of Precedence at Mess in these Regulations, readers are referred to the above paragraph.

⁂ This is a pertinent question. The paragraphs in the Queen's Regulations which, under the old bad *régime*, stamped the medical officer as an inferior being, must now be revised.

MEDICO-LEGAL.

ACTION BY THE APOTHECARIES' SOCIETY.

AT the Whitechapel County Court, on February 11th, before his Honour Judge Bacon, Thomas Allen, Commercial Road, was sued by the Society of Apothecaries for the payment of £20, the penalty prescribed by Section XX of the Apothecaries Act, 1815, for having acted as an apothecary without authority.

Mr. Turner appeared on behalf of the Society, and according to a report in the *Morning Post*, said that in July last the Society's attention was drawn to the conduct of Allen, who had previously been cautioned by an East London coroner for having given advice and prescribed remedies, for which he received payment.

Evidence was given by a witness, who said he had visited Allen, who had examined him and supplied him with medicine and pills, for which he had paid a charge of 1s. on each occasion.

It was contended on behalf of the defendant that he gave advice free, but only charged for the medicine which he supplied to the patients.

His Honour gave judgment for the plaintiff Society for £20 with costs.

THE CONSCIENCE CLAUSE.

THE "conscience clause" and the procedure under it have once more demanded the attention of the Divisional Court, in the case of R. *v.* Justices of Buckingham, heard by Lawrance and Channell, J.J., on February 13th, which was a case in which a rule *nisi* had been obtained calling on the justices to show cause why they should not hear and determine an application for exemption under the Vaccination Act. The facts were shortly as follows: Arthur Bedford applied to the defendants for a certificate of exemption from vaccination for his two children upon the usual grounds. When the case reached the higher court they filed an affidavit, in which it was stated that in pursuance of a rule made by the Bench the application had been refused because no birth certificates had been produced. Evidence of the birth, in the form of the oral testimony of him and his wife, had been tendered by the applicant, and he also produced the child itself, but the justices declined to hear the application.

Counsel for the applicant (Mr. Schultess Young) argued that the evidence tendered was the best evidence of the fact of the birth, and that the rule made by the justices was *ultra vires*. It was not authorised by the Act. Eventually the Court discharged the rule. Mr. Justice Lawrance said that it was important that the child should be identified both for the purpose of making out the certificate, and also for future use; while Mr. Justice Channell observed that the justices were entitled to require a birth certificate unless some reason were shown why it could not be given.

The point decided in this case appears to be that it rests with the magistrates to determine what proof is best suited to all the circumstances of the case, with a view of fixing the identity of the child for the guidance of the vaccination officer. As a birth certificate only costs 3d. if applied for at the time of registration, no great hardship will ensue from the enforcement of its production before the magistrates.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

BOTANY.—Mr. A. W. Hill, B.A., of King's College, has been appointed Demonstrator of Botany.

DEGREE.—At the Congregation, on February 16th, Mr. C. Powell, B.A., of Emmanuel College, was admitted to the Degrees of M.B. and B.C.

AGRICULTURAL SCIENCE.—The graces for the establishment of a Department of Agriculture, for the maintenance of which offers to the amount of over £20,000 have been made by Sir Walter Gilbey and various public bodies, will be submitted to the Senate on March 2nd. The discussion in the Arts School was favourable to the proposal.

EXAMINATION FOR DEGREES.—Parts I and II of the Third Examination for the degree of M.B. and B.C. will commence on Tuesday, April 25th. The examination for the degree of M.C. will commence on Friday, April 28th.

UNIVERSITY OF EDINBURGH.

DISEASES OF TROPICAL CLIMATES.—At the meeting of the University Court on February 13th, it was resolved to invite applications, by advertisement, for the office of Lecturer in Diseases of Tropical Climates.

and it was remitted to a committee to consider and report as to the qualifications of the candidates, the first appointment to be for a period of three years, which may be renewed. The following are the regulations pertaining to the Lectureship: "1. The course of instruction shall extend over not less than twenty or more than twenty-five lectures, and shall consist of lectures and demonstrations and other practical work, the number of meetings for each to be arranged by the Senatus. 2. The class fee for the course shall be £2 2s., with an entrance fee of 5s. in the case of non-matriculated students. 3. Two such courses shall be given in each year, one in the winter and the other in the summer session, should a course in each session be required. 4. Each course of instruction shall be open to (1) qualified medical practitioners; (2) students who have completed the curriculum for the Final Examination in Medicine of any of the qualifying medical authorities; and (3) others specially interested in the subject. 5. Certificates of attendance will be granted as follows: (*a*) A class certificate to each member of the class who has performed the work of the class in a satisfactory manner; (*b*) a University certificate to be signed by the Dean of the Faculty of Medicine, to each member of the class who has attended a course of instruction on practical bacteriology, including the micro-organisms of tropical diseases, who has also attended the course of instruction in tropical diseases, and who has performed the work of both of these classes in a satisfactory manner. This certificate shall be based on evidence received from the teachers of practical bacteriology and tropical diseases."

RESEARCH GRANTS.—Grants recommended by the Senatus from the Earl of Moray Endowment for the purposes of research were approved.

EXTRA-ACADEMICAL TEACHERS.—The following were recognised as extra-academical teachers whose courses of instruction qualify for graduation in medicine in the University: (1) Professor W. E. F. Thomson, Anderson's College Medical School, Glasgow (Physiology); (2) John Macpherson, M.D., Larbert (mental diseases).

UNIVERSITY OF ABERDEEN.

UNIVERSITY COURT.

Proposed Subdivision of the Chair of Natural History.—At the meeting of the University Court on February 15th, some points of considerable general interest were dealt with. The great loss sustained by the University in the death of Professor Nicholson was alluded to with deep regret by the Principal. It may be mentioned that a request has been forwarded from the University authorities to the Secretary for Scotland, to which he has agreed, namely, that the appointment to the vacant Natural History Chair shall be delayed for a few weeks in order that the possibility may be considered of separating the subjects of zoology and geology, which have hitherto been included in the teaching of the Chair.

Teaching of Tropical Medicine.—A representation was received from the Senatus advocating the institution of a course of instruction in Tropical Medicine. The proposed course should consist of some twenty-five lectures, and it was suggested that the remuneration of the lecturer should be derived from the fees paid for the course. The importance of such teaching at the present time is emphasised by the wish of the Colonial Secretary only to appoint as medical officers in tropical districts those who shall have previously obtained knowledge of the diseases of the Tropics. The argument that such teaching, without clinical material, would be useless, was met by the statement that such a course was only intended as preliminary for the curriculum in London. The representation was adopted by a majority of votes, and the Faculty of Medicine was asked to make a recommendation for the appointment.

Proposed Gymnasium.—A memorial signed by some 425 students was submitted, which requested the attention of the Court to the great benefit which students would derive from the establishment of a gymnasium. It was known that the late Dr. Mitchell, in his generous benefactions to the University, had had this in view in the extensions of Marischal College, and manv obvious reasons were given for its expediency. The Court passed a resolution expressing its cordial sympathy with, and approval of, the object of the memorial, and remitted it to the Sites and Plans Committee with the view of taking the earliest opportunity of providing a gymnasium for the University.

LONDON SCHOOL OF MEDICINE FOR WOMEN.

BOSTOCK SCHOLARSHIP.—The trustees of the Reid Trust for the Education of Women have resolved to offer a scholarship of the annual value of £60 at the London School of Medicine for Women. The scholarship is founded in memory of the late Miss Bostock, one of the trustees. It will be tenable for two or four years, and will be given on the results of the Preliminary Scientific Examination of the University of London. The scholar must prepare for the medical degrees of the University of London. Further particulars can be obtained from the Hon. Secretary of the Reid Trust, Bedford College, York Place, W.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE following gentlemen having passed the necessary examination have been admitted Licentiates in Dental Surgery of the College: A. T. Green and D. Saville.

SOCIETY OF APOTHECARIES OF LONDON.

PASS LIST, February, 1899.—The following candidates passed in:

Surgery.—A. E. Malaher, St. Thomas's Hospital; R. R. Mowll (Section II), King's College Hospital; C. A. C. Salmon, Guy's Hospital; E. C. Thomas, London Hospital; R. Le G. Worsley (Section I), St. George's Hospital and Durham University.

Medicine.—P. A. Chillcott, London Hospital; C. J. Coleman, Cambridge University and Birmingham; F. Dengler (Sections I and II), Munich; J. Gallagher, Bombay; E. MacD. Judge, Guy's Hospital; L. Lehmann, Strassburg and Leipzig; R. R. Mowll (Section II), King's College Hospital; B. J. Nolan, Dublin; E. C. Thomas, London Hospital; D. O. Williams, Leeds.

Forensic Medicine.—P. A. Chillcott, London Hospital; C. J. Coleman, Cambridge University and Birmingham; H. Cooper, Aberdeen; F. Dengler, Munich; J. Gallagher, Bombay; E. S. Johnson, St. Mary's Hospital; E. MacD. Judge, Guy's Hospital; L. Lehmann, Strassburg and Leipzig; P. Power, Cork and Edinburgh; S. A. Rowley, Bristol; E. C. Thomas, London Hospital; D. O. Williams, Leeds.

Midwifery.—H. Clough, Leeds; H. Cooper, Aberdeen; F. Dengler, Munich; J. Gallagher, Bombay; E. S. Johnson, St. Mary's Hospital; V. S. Partridge, Charing Cross Hospital; J. W. Robertson, Kingston, Ontario; S. A. Rowley, Bristol; E. C. Scarlett, Royal Free Hospital; A. E. Shaw, Cambridge University and St. Thomas's Hospital; A. Y. St. Leger, Cambridge University and St. Mary's Hospital; E. C. Thomas, London Hospital; J. M. Twentyman, Cambridge University and King's College Hospital; D. O. Williams, Leeds; T. R. Wilshaw, Birmingham; E. D. Wortley, St. Bartholomew's Hospital.

The diploma of the Society was granted to Messrs. H. Clough, E. MacD. Judge, R. R. Mowll, A. E. Shaw, E. C. Thomas.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

ENGLISH URBAN MORTALITY IN 1898.

IN the accompanying table will be found summarised the vital statistics of 1898 relating to the thirty-three large English towns, including London, dealt with by the Registrar-General in his weekly returns.

The 339,350 births registered during 1898 in these thirty-three large towns were equal to a rate of 30.3 per 1,000 of their aggregate population, estimated at nearly eleven and a quarter millions of persons. This rate was 1.4 per 1,000 below the mean rate in the preceding ten years, 1888-97, and was lower than in any year on record. In London the birth-rate last year was equal to 29.5 per 1,000, while it averaged 30.9 in the thirty-two provincial towns, among which it ranged from 22.5 in Huddersfield, 22.9 in Halifax, 24.0 in Bradford, and 24.8 in Brighton to 34.7 in Salford, 35.2 in Liverpool, 35.4 in Sunderland, 35 5 in Gateshead, and 35.8 in Wolverhampton.

The 212,848 deaths registered last year in the thirty-three towns were equal to an annual rate of 19.0 per 1,000; this rate almost corresponded with that in the preceding year, and was 1.3 per 1,000 below the average rate in the ten preceding years. With two exceptions the rate of mortality during 1898 in these large towns was the lowest yet recorded. The death-rate in London during the year under notice was equal to 18.7 per 1,000, while it averaged 19.3 in the thirty-two provincial towns, among which it ranged from 13.9 in Croydon, 14.8 in Cardiff, 15.4 in West Ham, and 15.9 in Huddersfield to 21.4 in Newcastle-upon-Tyne, 21.9 in Manchester, 22.6 in Sunderland, 22.7 in Salford, and 24.0 in Liverpool.

During the year under notice 31,752 deaths were referred to the principal zymotic diseases in the thirty-three towns, equal to a rate of 2.85 per 1,000, which slightly exceeded the mean rate in the ten preceding years, 1888-97. The zymotic death-rates in these towns last year ranged from 1.61 in Huddersfield, 1.99 in Croydon, 2.04 in Burnley, and 2.15 in Plymouth, in Oldham, and in Halifax to 3.26 in Norwich, 3.35 in Leicester, 3.69 in Sunderland 3.82 in Sheffield, and 4.03 in Salford. The 31,752 deaths referred to the principal zymotic diseases included 13 which resulted from small-pox, 6,290 from measles, 1,570 from scarlet fever, 3,419 from diphtheria, 4,658 from whooping-cough, 2,190 from "fever" (principally enteric), and 13,612 from diarrhœa. The fatal cases of small-pox registered in the thirty-three large towns, which had been 732, 450, 120, 25, and 18 in the five preceding years, further declined to 13 during 1898, of which 3 occurred in Gateshead, 3 in Newcastle-upon-Tyne, 2 each in Leeds, Liverpool, and Sunderland, and 1 in London. The death-rate from measles, which had been 0.53, 0.71, and 0.55 per 1,000 in the three preceding years, was 0.56 last year and was slightly below the mean rate in the ten years 1888-97. In London the measles death-rate was 0.68 for 1,000, while it averaged 0.48 in the thirty-two provincial towns, among which the highest rates were recorded in Brighton, Plymouth, Bristol, Swansea, Norwich, Leicester, and Halifax. The death-rate from scarlet fever, which had been 0.18, 0.22, and 0.18 per 1,000 in the three preceding years, declined to 0.14 during the year under notice, and was little more than half the average rate in the ten preceding years; in London the rate of mortality from this disease was equal to 0.13 per 1,000, while it averaged 0.15 in the thirty-two provincial towns, and was highest in Wolverhampton, Birkenhead, Liverpool, Salford, Leeds, and Sunderland. The death-rate from diphtheria, which had been 0.35, 0.38, and 0.31 per 1,000 in the three preceding years, was again 0.31 during 1898, and corresponded with the average rate in the ten preceding years; in London the diphtheria death-rate was 0.39 per 1,000, while it averaged 0.25 in the thirty-two provincial towns, among which the highest rates were recorded in West Ham, Portsmouth, Cardiff, Swansea, Wolverhampton, Leicester, Birkenhead, and Leeds. The rate of mortality from whooping-cough, which had been 0.37, 0.57, and 0.41 per 1,000 in the three preceding years, was 0.42 during 1898, against an average rate of 0.52 per 1,000 in the ten preceding years; in London the death-rate from this disease was equal to 0.48 per 1,000, while it averaged 0.37 in the thirty-two provincial towns, among which whooping-cough showed the highest proportional fatality in Birmingham, Liverpool, Salford, Preston, Sheffield, Gateshead, and Newcastle-upon-Tyne. The death-rate from different forms of "fever" (including typhus, enteric fever, and simple and ill-defined forms of fever), which had been 0.20, 0.19, and 0.18 per 1,000 in the three preceding years, rose again to 0.20 during the year under notice, and corresponded with the average rate in the ten preceding years, 1888-97. In London the "fever" death-rate did not exceed 0.13 per 1,000, while it averaged 0.24 in the thirty-two provincial towns, among which the highest rates were recorded in Norwich, Birkenhead, Bolton, Salford, Preston, Sheffield, Sunderland, and Newcastle-upon-Tyne. The rate of mortality from diarrhœa, which had been 1.20, 0.79, and 1.24 per 1,000 in the three preceding years, was 1.22 during 1898, and considerably exceeded the average-rate in the ten preceding years: in London the death-rate from this disease was equal to 0.97 per 1,000, while it averaged 1.38 in the thirty-two provincial towns, among which diarrhœa showed the highest proportional fatality in Wolverhampton, Bolton, Manchester, Salford, Preston, Sheffield, Hull, and Sunderland.

Analysis of the Vital and Mortal Statistics of Thirty-three of the Largest English Towns during the Year 1898.

Towns.	Estimated Population middle of 1898.	Births.	Deaths.	Annual Rate per 1,000 Living.			Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Fever.	Diarrhœa.	Deaths of Children under one year of age to 1,000 Births.	Rate per cent. of Uncertified Deaths.
				Births.	Deaths.	Principal Zymotic Diseases.										
33 Towns	11,218,378	339,350	212,848	30.3	19.0	2.85	31,752	13	6,290	1,570	3,419	4,658	2,190	13,612	178	1.2
32 Provincial Towns	6,713,612	206,918	128,912	30.9	19.3	2.87	19,187	12	3,215	987	1,647	2,498	1,592	9,236	185	1.6
London	4,504,766	132,432	83,936	29.5	18.7	2.78	12,565	1	3,075	583	1,772	2,160	598	4,376	167	0.6
West Ham	286,654	8,749	4,406	30.6	15.4	2.68	765	—	91	23	180	119	72	280	170	2.4
Croydon	124,421	3,146	1,723	25.4	13.9	1.99	248	—	34	9	17	35	11	142	150	—
Brighton	122,310	3,024	2,062	24.8	16.9	2.36	288	—	82	7	21	21	18	139	180	0.5
Portsmouth	186,618	4,974	3,033	26.7	16.3	2.16	402	—	69	32	55	43	43	160	156	1.0
Plymouth	99,136	2,935	1,932	29.7	19.5	2.15	212	—	70	4	10	28	6	94	170	0.6
Bristol	316,900	9,055	5,437	28.6	17.2	2.69	852	—	307	14	44	115	25	347	164	0.7
Cardiff	177,770	5,520	2,627	31.1	14.8	2.24	396	—	50	8	129	43	17	149	158	0.7
Swansea	102,001	2,941	1,889	28.9	18.6	3.21	326	—	88	11	124	40	13	50	184	1.5
Wolverhampton	88,051	3,140	1,868	35.8	21.3	3.19	280	—	19	23	38	9	20	171	200	1.1
Birmingham	510,343	17,316	10,179	34.0	20.0	2.78	1,417	—	181	46	131	251	114	694	191	2.9
Norwich	111,699	3,329	2,112	29.9	19.0	3.26	363	—	75	23	14	37	45	169	192	0.8
Leicester	208,662	6,156	3,522	29.6	16.9	3.35	697	—	214	44	62	19	30	328	191	2.4
Nottingham	236,137	6,800	4,160	28.9	17.7	2.37	558	—	104	34	24	58	56	282	178	0.8
Derby	104,834	2,861	1,759	27.4	16.8	2.26	235	—	53	20	9	28	28	97	169	—
Birkenhead	113,189	3,429	1,969	30.4	17.4	2.53	285	—	30	32	49	8	38	128	186	0.8
Liverpool	633,645	22,224	15,153	35.2	24.0	3.22	2,034	2	276	143	147	326	166	974	184	3.4
Bolton	122,495	3,776	2,368	30.9	19.4	2.93	358	—	31	23	8	45	38	213	168	0.3
Manchester	539,079	17,591	11,766	32.7	21.9	3.11	1,673	—	271	65	53	170	125	989	197	0.8
Salford	215,702	7,475	4,884	34.7	22.7	4.03	867	—	99	62	32	130	80	464	212	1.0
Oldham	148,288	3,748	2,600	25.3	17.6	2.15	319	—	85	24	10	65	22	113	175	0.1
Burnley	109,546	2,964	1,781	27.1	16.3	2.04	224	—	8	6	30	7	27	146	195	1.7
Blackburn	133,228	3,595	2,451	27.1	18.4	2.57	342	—	50	16	31	5	32	208	206	3.3
Preston	116,356	3,596	2,245	31.0	19.3	3.07	356	—	2	4	8	61	43	238	225	2.9
Huddersfield	102,454	2,295	1,627	22.5	15.9	1.61	164	—	32	10	13	11	10	88	153	2.2
Halifax	96,729	2,210	1,724	22.9	17.9	2.15	207	—	70	14	8	35	18	62	163	2.7
Bradford	233,737	5,594	4,102	24.0	17.6	2.12	493	—	104	11	17	68	49	244	185	1.2
Leeds	416,618	12,968	7,983	31.2	19.2	3.12	1,295	2	191	119	223	161	92	507	182	0.4
Sheffield	356,478	12,044	7,197	33.9	20.2	3.82	1,358	—	175	56	94	219	142	672	195	2.3
Hull	229,887	7,666	4,209	33.4	18.4	2.99	686	—	92	28	17	68	58	423	182	1.4
Sunderland	143,849	5,077	3.247	35.4	22.6	3.69	532	2	85	32	9	68	69	267	202	0.7
Gateshead	103,775	3,679	2,133	35.5	20.6	3.10	320	3	51	19	10	66	18	154	208	0.3
Newcastle-on-Tyne	223,021	7,041	4,764	31.4	21.4	2.82	634	3	126	25	30	139	67	244	190	0.7

Infant mortality, measured by the proportion of deaths under 1 year of age to births registered, was equal to 178 per 1,000, and exceeded by 11 per 1,000 the mean rate in the ten preceding years. In London the rate of infant mortality was equal to 167 per 1,000, while it averaged 185 in the thirty-two provincial towns, among which it ranged from 150 in Croydon, 153 in Huddersfield, 156 in Portsmouth, 158 in Cardiff, and 163 in Halifax to 200 in Wolverhampton, 202 in Sunderland, 206 in Blackburn, 208 in Gateshead, 212 in Salford, and 225 in Preston.

The causes of 2,538, or 1.2 per cent., of the 212,848 deaths in the thirty-three towns during 1898 were not certified, either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Croydon and in Derby; in the other towns the lowest proportions of uncertified deaths were registered in Oldham, Bolton, Leeds, and Gateshead, and the highest in West Ham, Birmingham, Leicester, Liverpool, Blackburn, Preston, and Halifax.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 7,028 births and 4,275 deaths were registered during the week ending Saturday last, February 18th. The annual rate of mortality in these towns, which had increased from 17.0 to 21.9 per 1,000 in the three preceding weeks, declined to 19.5 last week. The rates in the several towns ranged from 10.5 in Leicester, 12.1 in Huddersfield, 14.5 in Portsmouth, and 14.9 in Cardiff and in Hull, to 25.4 in Birkenhead, 27.7 in Salford, 27.9 in Liverpool, and 28.8 in Preston. In the thirty-two provincial towns the mean death-rate was 19.7 per 1,000, and slightly exceeded the rate recorded in London, which was 19.3 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.6 per 1,000; in London the rate was equal to 1.6 per 1,000, and corresponded with the mean rate in the thirty-two provincial towns, among which the highest zymotic death-rates were 2.7 in Halifax, 2.8 in Manchester, 3.0 in Swansea, and 4.1 in Birkenhead. Measles caused a death-rate of 1.3 in Manchester; whooping-cough of 1.3 in Nottingham, 1.4 in Sunderland, 1.6 in Halifax, and 2.3 in Birkenhead; and "fever" of 1.0 in Gateshead. The mortality from scarlet fever showed no marked excess in any of the large towns. The 88 deaths from diphtheria in the thirty-three towns included 40 in London, 8 in Sheffield, 5 in West Ham, 5 in Swansea, 4 in Birmingham, 4 in Liverpool, 3 in Birkenhead, and 3 in Leeds. No fatal case of small-pox was registered during the week under notice, either in London or in any of the thirty-two large provincial towns; and no small-pox patients were under treatment in any of the Metropolitan Asylums Hospitals. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had declined from 2,939 to 2,642 at the end of the seven preceding weeks, had further fallen to 2,587 on Saturday last, February 18th; 202 new cases were admitted during the week, against 220, 265, and 253 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, February 18th, 955 births and 855 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had risen from 21.3 to 31.2 per 1,000 in the four preceding weeks, declined to 28.0 last week, but was as much as 8.5 per 1,000 above the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 18.0 in Dundee and 18.6 in Perth to 32.5 in Greenock and 34.5 in Paisley. The zymotic death-rate in these towns averaged 2.5 per 1,000, the highest rates being recorded in Aberdeen, Leith, and Perth. The 452 deaths registered in Glasgow included 5 from measles, 7 from scarlet fever, 11 from whooping-cough, 6 from "fever," and 6 from diarrhœa. Ten fatal cases of whooping-cough were recorded in Edinburgh, and 4 in Leith.

PUBLIC HEALTH OF EDINBURGH.

THE Public Health Committee of the Edinburgh Town Council, on February 14th, on a motion by Bailie Pollard, the Convener, unanimously resolved to recommend to the magistrates and Council that in the contracts for the supplies of milk to the various city departments the following special condition should be introduced: "That cows from which milk is taken for the contract supplies shall have withstood the tuberculin test, applied by a qualified veterinary inspector approved by the Town Council."

At the same meeting Sir Henry Littlejohn, the medical officer of health, reported that during the six weeks of the present year 788 deaths from all causes had been registered, giving a death-rate of 22.84 per 1,000. Of these 788 deaths, 267 were due to diseases of the chest, and 73 to phthisis. On the other hand, there was less zymotic disease than usual. The City Hospital was now entirely free from the recent outbreak of typhus fever, and the number of patients on that day in the hospital was only 218.

POOR-LAW OFFICERS SUPERANNUATION ACT AMENDMENT BILL.

THE Poor-Law Officers Superannuation Act (1896) Amendment Bill introduced into the House of Commons by Sir J. W. Maclure is a short Bill of two clauses. It proposes that the provisions of the Poor-Law Officers Superannuation Act (1896) shall extend to and include all assistant overseers. The Bill is also backed by Mr. Ashcroft, Mr. Bailey, Lord Balcarres, Sir John Brunner, Mr. Cawley, Mr. Leigh Clare, Mr. Bromley Davenport, Sir F. Fitzwygram, Mr. Harwood, Mr. Hatch, Sir A. Hickman, and Sir W. H. Houldsworth.

AN ETHICAL QUESTION *RE* MIDWIFERY FEE.

G. P. writes as follows: Dr. A. attends an emergency midwifery case at the request of the relieving officer for the district, the Union medical officer, Dr. B., not being available at the time. As Dr. B. had neither attended the case, nor been engaged to do so, the relieving officer made out the order to Dr. A., and the guardians will only pay the fee to the latter. What is Dr. A.'s duty under the circumstances?

⁂ The whole proceeding is irregular. G. P. does not say that A. is the recognised deputy of B. We therefore assume that he is not so, and if this is the case A. ought not to have been applied to, as it was the duty of the relieving officer to procure the attendance of B.'s deputy, if possible, during his absence.[1] There could be no justification for any application to A. till this had been done. The duty of A. under such very peculiar circumstances is difficult to define. An equal division of the fee between A. and B. would, we think, be a fair settlement of the question.

HOSPITAL AND DISPENSARY MANAGEMENT.

FIFE AND KINROSS ASYLUM.

The annual report for the year ending July 31st, 1898, shows that during the twelve months 131 patients (59 males and 72 females) were admitted, 73 cases were discharged, and 27 died. The average daily number resident was 493, while there remained on the register at the close of the year 516, as compared with 485 at the close of the previous year. As showing the continuous increase in the number of admissions, it may be mentioned that during the ten years 1880 to 1890 the average annual number admitted was 87; during 1890 to 1895 it was 101; and during the last three years it has risen to 128. As Dr. Turnbull very properly points out, whether the increase in the numbers are readmissions or not, in considering whether there is any real increase in insanity or not, the fact remains that there is at any rate a large increase in the call for asylum care. Of the discharges, 44 were recovered, giving a percentage of 33.58 per cent. of the admissions. The death-rate was unusually low, only reaching 5.47 per cent. of the average daily number resident. The accommodation of the asylum is only sufficient for present numbers, and any increase in the number of patients will call for further accommodation being provided to prevent overcrowding. The net cost of maintenance has been £24 11s. 8d. per patient.

THE EARLSWOOD ASYLUM FOR IDIOTS.

At the close of the year 1897 there remained in the asylum 562 patients—373 males and 189 females—and Dr. Caldecott points out with regret that owing to deficiency of revenue the admissions had been limited to 40. This is much to be regretted, as the benefits conferred by this institution are so well known and recognised it is worthy of more generous public support. It is gratifying to learn that the greater number of those admitted already show signs of improvement. Of the discharges 27 were males and 16 females, all having been benefited by their residences in the institution. The deaths numbered 18, and no fewer than 11 of these died from phthisis and 2 from "congestion of the lung," truly a formidable death roll due to diseases of the lungs. In the girls' school 178 pupils and in the boys' schools 100 pupils attend, and much progress is made in educating these mentally deficient inmates in reading and writing, whilst the workshops bring out in a wonderful manner the intelligence of some of the patients who are incapable of higher education. No fewer than 23 prizes were gained at the Lancaster Arts and Crafts Exhibition by patients of this institution.

THE RETREAT, YORK.

This old and well-known institution has been continuously full during the year covered by the report, and patients have been declined owing to lack of room. During the twelve months ending June 30th, 1898, covered by the report, the total number of cases under care was 195—namely, 78 males and 117 females. There were 39 admissions and 28 discharges; of the latter there were only 11 discharged recovered, giving an average of 28.20 per cent. calculated upon the admissions, as compared with 50 per cent. during the previous year. The death-rate was exceedingly low, standing at only 1.3 per cent. calculated upon the average daily number resident, while the weekly average cost for the maintenance of the patients was for the financial year 36s. 7d. per head per week. It is gratifying to observe that in addition to the 30 patients already maintained at 12s. a week 6 new patients were admitted at the same rate, whilst a like number of necessitous patients were received at reduced rates on account of their connection with the Society of Friends. Dr. Bedford Pierce tells us in his report that 67 patients are at present in the Retreat whose payments do not cover the cost of their maintenance. This is carrying out the principle of true charity in the administration of the institution. The systematic training of the male and female nurses of the institution continues, and several have gained the certificate of the Medico-Psychological Association for proficiency in nursing.

INDIA AND THE COLONIES.

NEW SOUTH WALES.

Proposed New Maternity Hospital at Sydney.—The Royal Commission recently appointed by the Government of New South Wales to investigate and report upon the public charities have recommended the transference of the maternity department of the Benevolent Society in Sydney to a more commodious building on a better site. The lying-in wards form a part of a very old building used as an asylum for women and children. There have been several outbreaks of puerperal fever in these wards in past years, and the medical staff have long urged the necessity for the removal of the maternity department in consequence o the incommodious and insanitary condition of the present building. The Commission have recommended the resumption of the premises in Darlinghurst used as the School of Industry, and their adaptation for a maternity hospital. The constitution of the new hospital would be framed on lines somewhat similar to those of the other public hospitals in Sydney, so as to invite and elicit support from the public for its maintenance. Under present arrangements the medical students have to attend their practical midwifery under very uncomfortable circumstances; and a new hospital on the lines suggested would be a great boon not only to the poor lying-in women, but also to the medical staff and medical students.

Report of the Inspector-General of the Insane.—The annual report of the Inspector-General of the Insane for New South Wales has just been presented to Parliament by Dr. Eric Sinclair. Early in the year Dr. F. Norton Manning resigned the post which he had held for over twenty years and in which he had done such excellent work. Dr. Eric Sinclair, the Medical Superintendent of Gladesville Asylum, was appointed his successor. The number of insane persons in the various asylums at the close of 1897 was 3,957—2,408 males and 1,549 females—being an increase of 112 on the number for 1896. But this increase is considerably less than has been customary during the last few years, and approaches more the average for twenty years. The proportion of insane to the population in 1891 was 2.69 per 1,000; at the close of 1897 it was 2.99 per 1,000. This compares favourably with the proportion in the other Australian colonies and in Great Britain. The diminution in the number of new cases admitted during the year was probably due to the improvement in the general condition of the colony and the recovery from the financial depression of previous years. The recoveries show a percentage of 41.47, and the cases relieved a percentage of 5.78 on the admissions. This again compares favourably with the rates in other countries. The total number of patients under care during the year was 4,837; the average daily number resident was 3,822, of whom 2,355 were males and 1,467 females. The deaths numbered 249, being a percentage on the daily average number resident of 6.51; of these, 134 were due to diseases of the brain, the remainder to various diseases of the heart and lungs and old age; 1 patient committed suicide and 1 died from an accident—snake poisoning.

BRITISH SOUTH AFRICA.

Memorial Hospital at Buluwayo.—This hospital at Buluwayo was built as a memorial of those who fell in the war in 1893. The foundation stone was laid in October, 1894, and the hospital was opened in April, 1895. By the end of the year, in consequence of the Matabele rebellion, the accommodation was quite inadequate to meet the requirements of the sick and wounded. Rinderpest, too, was so prevalent that transport was paralysed, and ordinary food stuffs, such as milk, eggs, and butter, could scarcely be obtained, and then only at exorbitant prices. The hospital was also kept in a state of siege by the Matabele, and had to be fortified and guarded night and day. These unfavourable circumstances conduced, no doubt, to the high death-rate which marked this period. In June, 1897, the hospital, which had previously been controlled and financed by the Government, was handed over to the public of Bulawayo, as it was felt that it would receive more generous support if it became a public institution. It is now managed by a Board of nine members, six of whom are elected by the public and three nominated by the Government. The income for the first year from all sources was £12,341 12s. 3d., and the expenditure £9,499 3s. 6d. In May, 1898, a contract was let for the erection of additional buildings, to cost £12,110. The number of patients treated during the year was 1,204 whites and 415 blacks: there are practically no out-patients. From the report of Dr. Arnold, the resident surgeon, we learn that cases of malarial fever constitute a large proportion of the patients, the death-rate being very small among the Europeans, but considerably higher, as in all forms of disease, among the natives admitted to hospital. There have been but few cases of typhoid fever, and pulmonary diseases have not been prevalent, only five cases of pulmonary phthisis having been admitted. Of forty-six operations performed, eleven were major, consisting of laparotomies, operations on the head, and for abscesses of the liver; only one death occurred from operation, and that was in a native.

MEDICAL NEWS.

By the resignation of Dr. S. Rees Philipps the position of Medical Superintendent of the Holloway Sanatorium, Virginia Water, is rendered vacant. We are requested to state that the committee of the institution will meet in March to appoint a successor.

We are requested to state that Cooke's School of Anatomy, Physiology, and Operative Surgery was reopened on Tuesday, February 14th, and that it will be carried on in future according to the methods so successfully initiated by the late Mr. Thomas Cooke, F.R.C.S.

French Congress of Medicine.—The fifth French Congress of Medicine, which is to be held this year at Lille, will open on July 28th. The following are the questions proposed for discussion: (1) Myocarditis; (2) Lymphadenoma and Leukæmia; (3) Habituation to Drugs.

An International Medical Press Congress.—The French Medical Press Association held its forty-third meeting on February 3rd, under the presidency of Dr. Gézilly. It was decided to organise an International Congress of the Medical Press to be held in Paris in 1900 at the same time as the other congresses which are to take place there in that year.

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[1] Every medical officer shall, as soon as may be after his appointment, name to the guardians some legally qualified medical practitioner to whom application for attendance may be made in case of absence from home, etc., and the name and residence of such named practitioner shall be forwarded to each relieving officer, etc. (Art. 200, Consolidated Order, July 24th, 1847.)

THE Manchester Corporation has been advised that the estimated cost of dealing with the sewage and storm water of the city by means of 60 acres of bacteria beds will not exceed £300,000. The works proposed are anticipated to relieve Manchester of all future embarrassments in respect of the purification of sewage.

FEMALE NURSES IN THE UNITED STATES ARMY.—Surgeon-General Sternberg recommends the employment of expert female nurses in the United States army, their number not to exceed 1 per cent. of the army. These nurses are to receive not more than 50 dollars (£10) per month, and the chief nurses not more than 75 dollars (£15) per month. The nurses and chief nurses are to be graduates of training schools for nurses.

THE late Baroness de Stern has by her will bequeathed £500 each to the Surgical Aid Society, the Bexhill Convalescent Home, the Brompton Hospital for Consumption, the Hospital for Consumption, Hampstead, Earlswood Asylum, and the Hospital for Incurables, Putney. She also bequeathes to her trustees £60,000, to be applied in founding and endowing a hospital or a convalescent home, or almshouses or other public institutions, or for the purposes of enlarging any such existing institution in memory of her husband, whose name is to be associated therewith.

A RUSSIAN OPHTHALMOLOGICAL SOCIETY.—An Ophthalmological Society has recently been founded in Moscow, and already numbers 27 members. At the opening meeting Professor F. A. Jewezki delivered an address on the development of ophthalmology in Russia. He said the first ophthalmic surgeon of whom there was record in that country was David Brun, who settled in practice in 1628. In the seventeenth and eighteenth centuries there was practically no skilled treatment available for people afflicted with eye diseases, and the proper cultivation of that branch of surgery dated only from the second half of the present century. Professor A. A. Krjukow was elected President, and Professor Jewezki Vice-President, of the new society.

MEDICAL CO-EDUCATION.—Cornell University, the first college to admit women in co-education with men, has now been obliged to add a medical department to allow the sexes to study together. The professors, it is stated, were at first opposed to receiving the young women in the same medical classes with the young men; but the charter of the institution having been granted for co-education, it was not possible to close any department to either sex. The example of the medical department of the University of Buffalo, which admitted women in 1875 on the same basis as men, is thus followed. Nineteen young women are enrolled among the medical students at Cornell.

A STATE HOME FOR AGED PERSONS.—A Bill is to be introduced in the Legislature of New York State to provide a State home for the aged in the city of New York, and the counties of Westchester, Rockland, and Suffolk. The Bill appropriates 100,000 dols. (£20,000) to buy the land and build, furnish, and maintain the home, with permission to the governors to apply for more money each year. The buildings are to consist of a central hall and a number of one-storey cottages, all properly plumbed, heated, and lighted. A Board of Governors, appointed by the Mayor of New York and the superintendents of the poor of the three counties above mentioned, will manage the home under the terms of the Bill. Respectable, industrious, law-abiding aged persons, twenty years resident of any of the counties, may become inmates upon proof of lack of means of support. Employers of labour may also obtain admittance for superannuated employees on payment of a fixed yearly sum.

MALE NURSES FOR MALE PATIENTS.—At the annual meeting of the York Home for Nurses, Mr. W. Draper, Senior Surgeon to the York Dispensary, stated that it was his opinion, strongly held, that male patients should be nursed by male nurses. He objected to the nursing of men by females on moral as well as on many other grounds. It was not necessary; the nursing in the army and navy was done by medical orderlies, and well done. Indeed, some nursing duties might be better performed by men than by women; and he advocated the extension of the system to civil life. There would be no difficulty in obtaining the services of plenty of temperate, respectable, and sufficiently-educated young men who would be willing to go through a proper course of training in hospital, and then to qualify themselves as efficient male nurses. In London a very successful male nurses co-operation existed, having in its ranks about 100 male nurses, whose average earnings per man amounted to over £100 a year, after all expenses are paid. He trusted that the time was not far distant when every nursing institution of importance would have its branch for male nurses.

WORKING COLONY FOR EPILEPTICS.—The Asylums Committee of the London County Council have had under consideration provision for 300 male epileptics in eight detached buildings on their estate at Horton Manor, Epsom, where their seventh county asylum is now in course of erection. The plan of so-called cottage homes has been already tried at Alt-Scherbitz and other places in Germany, and has been favourably reported on; and in this country certain large Lancashire unions have combined for the purpose of providing accommodation of this kind for their imbeciles and epileptics. It is intended specially to select from amongst the patients of the London county asylums epileptics who appear suited for colony life; they will of course continue to be under the supervision of the Commissioners in Lunacy. The estimated expense of permanent buildings is at the rate of about £200 per bed.

THE MEDICAL PROFESSION IN AUSTRIA.—Official statistics recently published show that in 1895 the total number of Doctors of Medicine in Austria was 7,620. The proportion of medical practitioners to population in the different parts of the empire were as follows: Vienna, 1 in 691; Baden, 1 in 1,956; Linz, 1 in 1,070; Salzburg, 1 in 859; Graz, 1 in 604; Klagenfurt, 1 in 737: Laybach, 1 in 1,349; Trieste, 1 in 1,364; Innsbruck, 1 in 328; Prague, 1 in 452; Brünn, 1 in 832; Troppau, 1 in 1,024; Lemberg, 1 in 859; Krakau, 1 in 395; Czernowitz, 1 in 1,444; Lower Austria, 1 in 1,129; Upper Austria, 1 in 4,000; Krain, 1 in 8,564; Galizia, 1 in 6,792; Bukowina, 1 in 6,990. The number of doctors given above does not include the lower grade practitioners known as *Wundaertze* (surgeons, or literally "wound doctors"), who in 1895 numbered 1,181.

MEDICAL VACANCIES.

The following vacancies are announced:—

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES.—Clinical Assistant. Applications to the Secretary, John Bright Street, Birmingham, by March 10th.

BRIGHTON THROAT AND EAR HOSPITAL, Church Street, Queen's Road, Brighton.—Non-resident House-Surgeon. Appointment for six months, but renewable. Salary at the rate of £75 per annum. Applications to the Secretary, 10, Black Lion Street, Brighton, by February 28th.

CUMBERLAND AND WESTMORLAND ASYLUM, Garlands, Carlisle.—Junior Assistant Medical Officer, unmarried, and not more than 26 years of age. Salary, £80 per annum, with board and residence. Applications to the Medical Superintendent.

DEVIZES URBAN DISTRICT COUNCIL.—Medical Officer of Health; must reside within the Borough. Salary, £50 per annum. Applications, marked "Medical Officer of Health," to the Town Clerk, by March 4th.

DUBLIN: MERCER'S HOSPITAL.—Resident Medical Officer. Applications to the Registrar by February 27th.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—House-Surgeon. Board and residence provided, and honorarium of £25 on completion of six months' approved service. Applications to the Secretary by March 18th.

EDINBURGH UNIVERSITY.—Lecturer on Diseases of Tropical Climates. Applications to the Secretary of the University Court by March 6th.

EDINBURGH: VICTORIA HOSPITAL FOR CONSUMPTION.—Resident Physician and a Non-resident Medical Officer. Appointments for six months. Salary at the rates of £20 and £60 per annum respectively. Applications to the Honorary Secretaries, 1, North Charlotte Street, Edinburgh, by March 11th.

ESSEX COUNTY ASYLUM, Brentwood.—Junior Assistant Medical Officer, unmarried, and not over 26 years of age. Salary, £120 per annum, with board, residence, and washing. Applications to the Medical Superintendent by February 28th.

FARRINGDON GENERAL DISPENSARY.—Resident Medical Officer. Salary, £100 per annum, with apartments and attendance. Applications to the Secretary, 17, Bartlett's Buildings, Holborn Circus, E.C., by February 28th.

GLASGOW UNIVERSITY.—Professor of Pathology. Salary, £1,100. Applications to Alan E. Clapperton, Secretary of the Glasgow University Court, 91, West Regent Street, Glasgow, by March 24th.

GREAT NORTHERN HOSPITAL.—Surgeon to In-patients; must be F.R.C.S. Junior House-Surgeon. Appointment for six months. Salary at the rate of £30 per annum, with board, lodging, and washing. Applications to the Secretary by March 15th and 20th respectively.

HALIFAX ROYAL INFIRMARY.—Assistant House-Surgeon, unmarried. Salary, £50 per annum; and an extra allowance of £9 2s. 6d. per annum; also residence, board, and washing. Applications to the Secretary by February 28th.

HALIFAX UNION WORKHOUSE, St. Luke's Hospital.—Assistant Medical Officer for the Hospital and Workhouse, unmarried, and not over 35 years of age. Salary, £100 per annum. Applications on forms provided, to be endorsed "Assistant Medical Officer," and sent to the Clerk to the Guardians by March 1st.

HEREFORD GENERAL INFIRMARY.—Senior House-Surgeon, unmarried. Salary, £80 per annum, with furnished rooms, board, washing, gas, coals, and attendance. Applications to the Secretary by February 28th.

KING'S COLLEGE, London.—Sambrook Surgical Registrar and Assistant Ophthalmic Surgeon at King's College Hospital. Applications to the Secretary for the former by March 13th.

LIVERPOOL: BOOTLE BOROUGH HOSPITAL.—Junior House-Surgeon. Salary, £50 per annum, with board, lodging, etc. Applications to the Secretary.

LIVERPOOL HOSPITAL FOR DISEASES OF THE THROAT, NOSE, AND EAR, 25, Oxford Street, Liverpool.—Honorary Assistant Surgeon. Applications to the Honorary Secretary, Sand Lea, West Kirby, Cheshire, by March 1st.

LIVERPOOL NORTHERN HOSPITAL.—Assistant House-Surgeon. Salary, £70 per annum, with residence and maintenance. Applications to the Chairman of the Committee by March 9th.

LIVERPOOL SCHOOL OF TROPICAL DISEASES (University College, Liverpool, and the Liverpool Royal Southern Hospital).—Lecturer in Tropical Diseases at University College. Will also be appointed Honorary Consulting Physician to the Royal Southern Hospital. Salary, £250 a year and proportion of students' fees. Applications to Professor Boyce, University College, Liverpool, by February 27th.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Assistant Resident Medical Officer. Appointment for six months. Residence, board, and washing provided, and honorarium of 5 guineas. Applications to the Secretary by March 16th.

MANCHESTER CHILDREN'S HOSPITAL.—Junior Resident Medical Officer. Appointment for six months, but eligible for election as Senior for six months. Unmarried. Salary, £80 per annum as Junior, and £100 as Senior, with board and lodging. Application to the Secretary, Dispensary, Gartside Street, Manchester, by March 1st.

MANCHESTER EAR HOSPITAL, 23, Byrom Street.—Clinical Clerkship. Appointment for six months. Honorarium, 10 guineas. Applications to the Secretary by March 1st.

MANCHESTER ROYAL INFIRMARY.—Honorary Aural Surgeon, Honorary Assistant Surgeon, and Junior Administrator of Anæsthetics. Salary for the latter post, £50 per annum. Applications to the General Superintendent and Secretary for the two former appointments by March 18th, and for the latter by March 4th.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—House-Physician, House-Surgeon, Assistant House-Physician, and Assistant House-Surgeon. Appointments for six months. The two former will receive salary at the rate of £40 per annum, and the two latter at the rate of £20 per annum. Applications to the Secretery by March 13th.

MILLER HOSPITAL AND ROYAL KENT DISPENSARY, Greenwich Road, S.E.—Junior Resident Medical Officer. Salary, £40 per annum, with board, attendance, and washing. Appointment for six months, with prospect of re-election as Senior. Applications to the Secretary by March 8th.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—House-Surgeon, unmarried and not more than 30 years of age. Salary, £80 per annum, with board, lodging, and washing. Applications to the Secretary by February 28th.

PORTSMOUTH: ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL.—Assistant House-Surgeon. Appointment for six months, but renewable. Board, residence, and honorarium of £15 15s. Applications to the Secretary by March 2nd.

PLYMOUTH: SOUTH DEVON AND EAST CORNWALL HOSPITAL.—House-Surgeon. Salary, £100 per annum, with board and residence. Applications to the Honorary Secretary by March 4th.

PLYMOUTH: SOUTH DEVON AND EAST CORNWALL HOSPITAL.—Assistant House-Surgeon. Appointment for six months, but renewable. Salary at the rate of £50 per annum, with board and residence. Applications to the Secretary by March 11th.

PRESTON ROYAL INFIRMARY.—A Junior and an Assistant House-Surgeon. Salaries, £80 and £50 per annum respectively, with board, lodging, and washing. Applications to the Secretary, 5, Winckley Street, Preston, by March 4th.

READING: ROYAL BERKS HOSPITAL.—Assistant House-Surgeon. Appointment for six months. Salary, £30 per annum, with board, lodging, and washing. Applications to the Secretary.

ROXBURGH DISTRICT ASYLUM.—Assistant Medical Officer. Salary, £100 per annum, with furnished quarters, board, washing, and attendance. Applications to the Medical Superintendent.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN, Waterloo Bridge Road, S.E.—Resident Medical Officer. Salary, £70 per annum, with board, lodging, and washing. Applications to the Secretary by March 1st.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Junior Out-patient Surgical Officer. Salary, £50. Applications to the Secretary by February 28th.

RYDE: COUNTY HOSPITAL.—House-Surgeon. Salary, £50 per annum, with board, lodging, etc. Applications to the House-Surgeon by March 1st.

ST. GEORGE HANOVER SQUARE PROVIDENT DISPENSARY, Little Grosvenor Street.—Resident Medical Officer. Salary, £100 per annum, with allowance about £80, and residence. Applications to the Secretary by March 10th.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN, Marylebone Road, N.W.—Anæsthetist. Honorarium, £20 per annum. Applications to the Secretary by March 10th.

STAFFORDSHIRE COUNTY ASYLUM, Stafford.—Junior Assistant Medical Officer, unmarried, and under 30 years of age. Salary, £100 per annum, increasing to £150, with furnished quarters, board, etc. Applications to the Medical Superintendent.

TAUNTON: TAUNTON AND SOMERSET HOSPITAL.—Assistant House-Surgeon. Appointment for six months. No salary, but board, washing, and lodging provided. Applications, endorsed "Assistant House-Surgeon," to the Hon. Secretary, by March 3rd.

WESTON-SUPER-MARE HOSPITAL.—House-Surgeon, unmarried. Salary, £60 per annum, with board and residence. Applications to the Honorary Secretary by February 28th.

MEDICAL APPOINTMENTS.

BLATHERWICK, Henry, L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the Dulwich District of the Parish of St. Giles, Camberwell.

BOSTOCK, E. Bernard, M.B., B.S.Lond., M.R.C.S., L.R.C.P., appointed Resident Medical and Surgical Officer to the Jaffray Branch of the General Hospital, Birmingham, Gravelly Hill.

BRENNAND, F. J., M.B., C.M.Aberd., appointed Medical Officer for the Fourth District of the Shepton Mallet Union.

COOKE, F. H., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Fifth District of the Lexden and Winstree Union.

DE BEAUVAIS, R. N., L.S.A., appointed Medical Officer for the Milton Abbott District of the Tavistock Union.

DICKEY, A. A. G., M.D., L.R.C.S.I., appointed Medical Officer for the Colne District of the Burnley Union.

DUNN, J. P., M.B., C.M.Glasg., appointed Medical Officer for the Bishopton District of the Sedgefield Union.

FLINT, F. S., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the Orford District of the Plomesgate Union.

FRYER, R. A., M.B., C.M.Edin., appointed Medical Officer for the Hoxton New Town District of the Parish of St. Leonard, Shoreditch.

GRAHAM, J., M.B., C.M.Edin., appointed Medical Officer to the Cockermouth Union Workhouse.

GRAHAM, J. W. F., L.S.A., appointed Medical Officer for the Brill District of the Thame Union.

HILLMAN, G., L.S.A., appointed Medical Officer of Health to the Castleford Urban District Council.

HANLY, J. J., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer for the No. 2 District of the Shepton Mallett Union, *vice* L. Powell, M.R.C.S.Eng., L.R.C.P.Edin.

JACOB, F. H., M.B.Lond., M.R.C.S., L.R.C.P., appointed House-Physician to the Nottingham General Hospital, *vice* J. C. Buckley, M.D., resigned.

KEMPE, Gilbert, M.D., B.S.Durh., M.R.C.S.Eng., L.R.C.P.Lond., appointed Honorary Surgeon to the Salisbury Infirmary.

ENNARD, D. G., M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer of the Workhouse and the Faringdon District of the Faringdon Union.

KIRBY, S. J. J., M.D.Brux., L.R.C.P.Edin., M.R.C.S.Eng., appointed Medical Officer of Health to the Hoxne Rural District Council.

LONGFORD, J. M., L.R.C.P., L.R.C.S.I., appointed Medical Officer for the Litcham District of the Mitford and Launditch Union.

MANN, F. W. S., M.R.C.S., L.R.C.P.Lond., appointed Medical Officer for the Revesby District of the Horncastle Union.

MARSHALL, C. Devereux, F.R.C.S., appointed Ophthalmic Surgeon to the Victoria Hospital for Sick Children, Chelsea.

RAWLINGS, J. D., M.B.Lond., appointed Medical Officer for the Northern District of the Dorking Union.

RENNIE, George E., M.D., M.R.C.P.Lond., appointed Pathologist to the City of London Hospital for Diseases of the Chest, Victoria Park.

ROBINSON, James, M.D.Brux., L.R.C.P.Edin., M.R.C.S.Eng., reappointed Medical Officer of Health to the Turton Urban District Council.

ROCHE, Antony, M.R.C.P.I., etc., reappointed Examiner in Medical Jurisprudence and Public Health in the Royal University of Ireland.

ST. JOHNSTON, George, M.D.Lond., M.R.C.S., L.R.C.P., appointed Surgeon to the E Division, Birmingham Police.

TAYLOR, James, M.D., F.R.C.P., appointed Physician to the Royal London Ophthalmic Hospital.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 8.30 P.M.—Dr. Sidney Martin: Auto-intoxication and its bearing on the Treatment of Disease.

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Mr. McAdam Eccles: The Application of Trusses and of Abdominal Supports. (Lecture I.)

Royal College of Surgeons, 5 P.M.—Mr. B. G. A. Moynihan: On the Anatomy and Surgery of the Peritoneal Fossæ. (Arris and Gale Lecture I.)

Royal Institute of Public Health, 20, Hanover Square, W., 8.30 P.M.—Professor John McFadyean: On Tuberculosis in Cattle.

TUESDAY.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C., 3.30 P.M.—Mr. Gunn: On the Value of the Visual Fields in Diagnosis.

Royal College of Physicians of London, 5 P.M.—Dr. G. Vivian Poore: On the Earth in relation to the Preservation and Destruction of Contagia. (Milroy Lecture II.)

West End Hospital for Diseases of the Nervous System, 73, Welbeck Street, W., 4 P.M.—Dr. Dundas Grant: Cases of Aural and other Forms of Vertigo.

Royal Medical and Chirurgical Society, 8.30 P.M.—Mr. W. J. Walsham: A case of Extirpation of a large Non-pulsating Aneurysm, involving the common, internal, and external carotid arteries of the right side of the neck, with remarks on Non-pulsation in Aneurysms and the Treatment of Aneurysms by Extirpation.

WEDNESDAY.

Hospital for Consumption and Diseases of the Chest, Brompton, 4 P.M. Dr. Hector Mackenzie: Medicinal Treatment of Pulmonary Tuberculosis.

Royal College of Surgeons, 5 P.M.—Mr. B. G. A. Moynihan: On the Anatomy and Surgery of the Peritoneal Fossæ. (Arris and Gale Lecture II.)

Evelina Hospital, S.E., 4.30 P.M.—Mr. F. C. Abbott: Clinical Demonstration on the Complications of Ear Disease (Postgraduate Course).

Royal London Ophthalmic Hospital, Moorfields, 8 P.M.—Mr. Tweedy: Diseases of the Conjunctiva, with special reference to their General Pathology and Classification.

Obstetrical Society of London, 8 P.M.—Specimens will be shown by Mr. Bland Sutton and Mr. Targett and others. Inaugural Address by the President (Mr. Alban Doran). Paper: Dr. C. Hubert Roberts: A second case of Primary Carcinoma of the Fallopian Tube.

THURSDAY.

Neurological Society of London, 11, Chandos Street, Cavendish Square, W., 8.30 P.M.—Clinical evening: Dr. F. E. Batten: Muscular Atrophy in a Child. Dr. T. D. Savill: Epileptiform Seizures of probable Vasomotor Origin. Dr. Caley: Syringomyelia with sudden increase of Symptoms. Dr. Wilfrid Harris: Hæmorrhage into Spinal Cord (? Syringomyelia). Dr. J. H. Bryant: Paralysis Agitans following Typhoid Fever in a Man aged 31. Dr. Stansfield: Epileptic Insanity associated with Mastoid Disease: Operation: Relief of Mental Symptoms. And other cases.

Hospital for Sick Children, Great Ormond Street, W.C., 4 P.M.—Dr. Garrod: Demonstration of Selected Cases.

British Balneological and Climatological Society, 20, Hanover Square, W., 3.30 P.M.—Dr. Douglas Kerr (Bath): On Treatment of Diseases by Heat. Dr. Hedley (London): The Therapeutics of Heat.

Charing Cross Hospital, Post-Graduate Course, 4 P.M.—Dr. Montague Murray: Demonstration of Medical Cases.

St. John's Hospital for Diseases of the Skin, Leicester Square, 4.30 P.M. Dr. Morgan Dockrell: Cases of Telangiectasis and Vascular New Growths.

London Temperance Hospital, 2 P.M.—Dr. Soltau Fenwick: Clinical and Pathological Demonstration to Senior Students.

Harveian Society of London, 8.30 P.M.—Mr. D'Arcy Power: On Vanishing Tumours. Mr. Bellamy Gardner: A new Ether Inhaler.

Royal College of Physicians of London, 5 P.M.—Dr. G. Vivian Poore: On the Earth in relation to the Preservation and Destruction of Contagia. (Milroy Lecture III.)

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Mr. McAdam Eccles: The Application of Trusses and of Abdominal Supports. (Lecture II.)

FRIDAY.

West Kent Medico-Chirurgical Society, Royal Kent Dispensary, Greenwich Road, 8.45 P.M.—Clinical cases, etc., will be shown by Dr. McCann and Dr. Ezard, Mr. Ernest Clark, and Dr. Toogood.

Royal College of Surgeons, 5 P.M.—Mr. B. G. A. Moynihan: On the Anatomy and Surgery of the Peritoneal Fossæ. (Arris and Gale Lecture III.)

West London Medico-Chirurgical Society, West London Hospital, W., 8.30 P.M. Clinical evening. Cases will be shown by Dr. Seymour Taylor, Mr. Rowland Pollock, Mr. McAdam Eccles, and others.

Laryngological Society of London, 20, Hanover Square, 5 P.M.—Cases will be shown by the President, Dr. De Havilland Hall, Mr. Bowlby, Dr. E. Law, Dr. StClair Thomson, and others.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to insure insertion in the current issue.

BIRTHS.

WELSH.—Felton, Northumberland, on the 15th instant, the wife of Robert A. Welsh, M.B., B.S., of a son.

THOMAS.—On February 18th, at Greenlawn, Penylan, Cardiff, the wife of Mr. J. Lynn Thomas, F.R.C.S., of a daughter.

DEATH.

BAREFOOT.—On the 19th instant, at the residence of his brother, The Bank, Grays, Essex, suddenly, John Richard Barefoot, Major, Royal Army Medical Corps, aged 37.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances.*—Daily, 2. *Operations.*—Tu. W. F., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR. *Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—I.p., Tu., 2.30; o.p., F., 2.

CHARING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.45; Dental, M., 9: Throat and Ear, F., 9.30. *Operations.*—Th. F. S., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—M. W. Th. F., 2.

GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F., 2.30; Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

GUY'S. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30: Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 2. *Operations.*—Tu. F., 1.30; (Ophthalmic), M., 1.30; Th., 2.

HOSPITAL FOR WOMEN, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

KING'S COLLEGE. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, daily, 2; o.p., daily, 1.30; Eye, M. W. Th., 1.30: Ear, Th., 2.30; Throat, M., 1.30; F., 2; Dental, M. Th., 10; Skin, W., 1.30. *Operations.*—W. Th. F., 2.

LONDON. *Attendances.*—Medical, daily, i.p., 2; o.p., 1.30; Surgical, daily, 1.30 and 2; Obstetric, M. Tu. Th. F., 2; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, W., 9; Skin, Th., 9; Dental, Tu., 9. *Operations.*—Daily, 2.

LONDON TEMPERANCE. *Attendances.*—Medical, M. Tu. W. Th. F., 1.30; Surgical, M. Th., 1.30. *Operations.*—M. Th., 4.30.

LONDON THROAT, Great Portland Street. *Attendances.*—Daily, 2; Tu. F., 6. *Operations.*—Daily, 2.

METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 2; S., 9; Obstetric, W., 2; Eye, W., 2; Throat and Ear, Th., 2; Dental, Tu. Th. S., 9. *Operations.*—Tu. W., 2.30; Th., 4.

MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., 1.30; o.p., M., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu. F., 9; Skin, Tu., 4; Th., 9.30; Dental, M. F., 9.30; W., 9. *Operations.*—Daily, 1.30.

NATIONAL ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30. *Operations.*—Tu. F., 9.

NORTH-WEST LONDON. *Attendances.*—Medical, daily, exc. S., 2; S., 10; Surgical, daily, exc. W., 2; W., 10; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

ROYAL EAR, Frith Street. *Attendances.*—M. W. F., 3; Tu. F., 9.30 and 7.30. *Operations.*—Tu., 3.

ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

ROYAL FREE. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, W., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances.*—Daily, 2. *Operations.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily, 2.

ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. W. F., 2; o.p., W. S., 9; Eye, M. Tu. W. Th. S., 2; o.p., M. Th., 9; W. S., 2.30; Ear, Tu. F. 2; Skin, Tu., 9; Larynx, Tu. F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9; Electrical, M. Tu. Th. F., 1.30. *Operations.*—Daily, 1.30; (Ophthalmic), Tu. F. 2; Abdominal Section for Ovariotomy, F., 2.

ST. GEORGE'S. *Attendances.*—Medical and Surgical, daily; i.p., 1; o.p., 12; Obstetric, i.p., Tu. F. 1.45; o.p., M. Tu., 2.30; Eye, W. S., 1.30; Ear, Tu., 2; Skin, W., 2.45; Throat, F., 2; Orthopædic, F., 12; Dental, M. Tu. F., S., 12. *Operations.*—Daily, 1; Ophthalmic, M., 1; Dental, Th., 9.

ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males, S., 2; females, W., 9.30. *Operations.*—M., 9; Tu., 2.30.

ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 12.45; Obstetric, Tu. F., 1.45; o.p., M. Th., 1; Eye, Tu. F., 9; Ear, M. Th., 9; Throat, Tu. F., 3; Skin, M. Th., 9; Dental, W. S., 9; Electro-Therapeutics, M. Th., 2.30; Children's Medical, Tu. F., 9. *Operations.*—M., 2.30; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances.*—M., 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F. 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Th., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. F., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—Gynæcological, M., 2; W., 2.30.

THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu, F., 6.30. *Operations.*—Daily, exc. M., 10.

UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. F., 1.30; Eye, M. W., 1.30; Ear, M. Th., 9; Skin, Tu. F., 2; Throat, M. Th., 9; Dental, Tu. F., 9.30. *Operations.*—Tu. W. Th., 2.

WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th., 2; Ear, Tu., 2; S., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, M. Th., 2; Skin, M. F., 2; Throat and Nose, Tu., 2; S., 10. *Operations.*—Daily, about 2.30; F., 10.

WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, Tu. F., 9.30; Ear, Tu., 1.30; Skin, W., 1.30; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and **LETTERS** *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are directed will be found under their respective headings.*

QUERIES.

A. R. H. asks for particulars of the Maiche process for sterilising water.

L. A. W. will be glad to know of an efficient treatment for a young married lady—first confinement four months ago—whose hair is rapidly coming out; general treatment with tonics has no effect, and a local application is the present want.

J. A. M. desires to hear of a home or institution into which a governess, aged 54, who is suffering from aphasia without hemiplegia, could be received. She has no money and no friends, and is not likely to be able to earn her own living again.

TOWN DUST DESTRUCTORS.

PROVINCIAL MAYOR would like to know the name of some book which describes the methods of getting rid of town refuse, and which contrasts the relative advantages of the various types of dust destructors in use.

DURHAM AND LONDON.

DR. W. G. KEMP (38, Alleyn Road, West Dulwich, S.E.) writes: I am seeking information upon the best way to combine study at these two places. Will some of your readers who may have practical knowledge upon this question kindly favour me with answers to the following queries: (1) Which year is most advantageously spent at Newcastle by a student commencing medical studies in, say, October next? It must be remembered that attendance upon medical and surgical practice and clinical lectures upon the same is compulsory upon those who spend one year out of the five at Newcastle. (2) What the increased cost, in fees, is to those who spend a year at Newcastle as compared with those who spend the whole time in London? (3) The advantages or otherwise of living at the Residential Hall?

HYDROCELE OF THE CORD AND SCROTUM.

MR. COTTENHAM FARMER, M.R.C.S., etc. (Hexham) writes: A farmer, aged 28, had suffered for years from a tumour in the groin, the pain being sometimes intolerable. I found a swelling in the inguinal region, connecting directly with a fairly large hydrocele, the communication between them being free. I introduced a trocar, and drew off 5 or 6 ounces of clear fluid, but did not empty the sac; but I fancy I felt the atrophied testicle in the upper tumour close to the ring. A week ago I again punctured, but with too fine a trocar drew off little fluid, and injected tincture of iodine, producing great pain and shock, probably due to over-distension. Six days later the swelling appeared the same; there was no thickening of the sac and no pain. I again tapped with a large trocar, but only succeeded in drawing off a certain amount of fluid, and I again injected iodine. He used pressure upon the inguinal tumour, and so distended the hydrocele whilst I operated. I shall be glad of the advice of some surgeon of more experience than myself.

A QUESTION OF TASTE.

J. G.—Our correspondent wishes to know whether on a joint doorplate his partner should be described as J.P., Medical Officer of Health; and himself as M.B.London, Physician and Surgeon?

⁂ It is well known that there is no absolute standard of taste, and that manners and customs change from one generation to another. Undoubtedly it has not hitherto been usual to put the initials J.P. or such a designation as Medical Officer of Health upon a doorplate, while the practice of adding Physician and Surgeon after the name is comparatively new, and is not followed by the leading general practitioners, who are content to put their name only upon their doorplates, or at most to add the word Surgeon. There is so much difference of opinion upon all these questions that, in the absence of any rule beyond what may be derived from such customs as we have pointed out, we must decline to occupy the insecure position of an arbiter of taste.

THE SECOND PROFESSIONAL EXAMINATION, EDINBURGH.

J. asks for advice in the choice of books for the Second Professional Examination, Edinburgh University.

⁂ We are advised that the following books would suit our correspondent's requirements: Gray's *Anatomy*, 14th edition, by T. Pickering Pick, F.R.C.S. (London: Longmans, Green and Co., 1897, 36s.); Ellis's *Demonstrations of Anatomy*, 11th edition, by Professor G. D. Thane (London: Smith, Elder and Co., 1890, 12s. 6d.); *Manual of Practical Anatomy*, by D. J. Cunningham, M.D., 2nd edition (Edinburgh and London: Young J. Pentland, 1896, 25s.); Turner on the *Brain*; the late Professor Rutherford's Class Syllabus, and his notes on Histology and Physiological Chemistry, or *Kirkes's Handbook of Physiology*, 14th edition, by W. D. Halliburton, M.D., F.R.S. (London: John Murray, 1896, 14s.); *Elements of Histology*, by E. Klein, M.D., F.R.S., and J. S. Edkins, M.A., M.B. (London: Cassell and Co., 1889, 12s. 6d.); *Manual of Pathology*, by J. Coats, M.D., 3rd edition—a new edition is promised in the autumn—(London: Longmans, Green and Co., 1895, 31s. 6d.), or Green's *Pathology and Morbid Anatomy*, 8th edition, by H. M. Murray (London: H. Renshaw, 1895, 17s.), with *Practical Pathology*, by G. Sims Woodhead, M.D., 3rd edition (Edinburgh and London: Young J. Pentland, 1892, 12s. 6d.); Sir A. B. Garrod's *Essentials of Materia Medica*, 13th edition (London: Longmans, Green and Co., 1890, 12s. 6d.), or *Pharmacy, Materia Medica and Therapeutics*, by W. Whitla, M.D., 7th edition (London: H. Renshaw, 1898, 10s. 6d.), or *Materia Medica and Therapeutics*, by J. Mitchell Bruce, M.D. (London: Cassell and Co., 1893, 7s. 6d.), or *Therapeutics*, by H. C. Woods, M.D., LL.D. (London: Smith, Elder, 1894, 18s.).

AFTER-HISTORY OF CASES OF CHRONIC DYSENTERY TREATED BY COLOTOMY.

MAJOR L. TARLETON YOUNG, M.D., I.M.S. (Flushing, Falmouth) is anxious to have information as to the subsequent history of cases of chronic dysentery treated by colotomy or ileotomy. He asks as to the part of the colon in which the lesions were situated in successful cases. In some cases examined in India *post mortem*, he observed marked attempts at cicatrisation. Many cicatrised ulcers, completely healed up, were found side by side with others which were small, clean, healthy, and punched-out in appearance. In these cases the liver was found to be small, atrophied, and pale yellow in colour. It had all the appearance of a cirrhosed liver in which fatty degeneration had occurred. In other cases, he continues, I found absolutely no attempt at any reparative changes, and in such cases the liver exhibited no marked macroscopic changes. The intestine itself was also always much more thickened and hypertrophied than in the other type of cases. Clinically we also find that liver abscess supervenes with greater frequency in those cases in which the cæcum and ascending colon are affected, and that it is these cases which are most impossible of cure. Chronic dysenteries of other parts of the colon often recover when put to bed for from three to five months on absolute milk diet. The chronic dysenteric bowel is most susceptible to all kinds of irritation; even the slightest change of food affects it. Irritations of other portions of the digestive tract also seem to leak or travel over to the dysenteric portion, Taking this extreme sensitiveness into consideration, does no possibility exist of fresh dysenteric trouble being lighted up by any operative interference?

ANSWERS.

A MEMBER.—The removal of superfluous hairs by electrolysis can be carried out by any dermatologist.

SAXON.—We are informed that a moderate degree of myopia does not necessarily disqualify a candidate for the medical service of the Royal Navy.

WE are informed that such a case as to which "A. P." inquires in the BRITISH MEDICAL JOURNAL of February 11th, p. 386, would be received at the Yorkshire Home and Hospital for Chronic and Incurable Diseases, Harrogate. The usual terms are 12s. 6d. a week, but other arrangements are sometimes made for special cases. Further particulars can be obtained on application to the secretary.

RULING.—The rule suggested in *The Medico-Chirurgical Tariffs* is as follows:

Consultations.—When the ordinary medical attendant has to meet another practitioner in consultation, he is fully entitled from loss and disarrangement of time, to not less than double his usual fee—exclusive of that for inordinate or needless detention. If, however, the consultations are frequent, the increase may be remitted at his discretion; and in the following case, also, if requested by the practitioner in attendance, When a general practitioner is himself called in consultation he is entitled to the consultant's *minimum* fee of 21s. Obstetric consultations should be charged by arrangement between the practitioners.

AJAX; W. B. S.; B. C. T.—The rule suggested in *The Code of Medical Ethics* is as follows;

All legitimate practitioners of medicine, their wives, and children while under the paternal care, are entitled (*not* as a matter of *right*, but) *by professional courtesy*, to the reasonable and gratuitous services—*railway and like expenses excepted*—of the faculty resident in their immediate or near neighbourhood, whose assistance may be desired. In the case, also, of near relatives who are more or less dependent upon a professional brother (other than wealthy), it will likewise be well, at his request, to forego or to modify the usual fee. On the other hand, a son or a daughter altogether independent of the father—or the widow and children of a practitioner left in affluent or well-to-do circumstances—should be charged as ordinary patients, unless feelings of friendship, or other special reasons, render the attendant practitioner averse to professional remuneration; in such case, the rule need not apply. Moreover, if a wealthy member of the family seeks professional advice, and courteously urges the acceptance of a fee, it should not be declined—*for no pecuniary obligation ought to be imposed on the debtor which the debtee himself would not wish to incur.*

MEDICAL INSPECTORSHIPS.

J. H. E.—We do not know how far the D.P.H. is essential to appointment as Medical Inspector under the Local Government Board, but we imagine that, all else being equal, such a diploma would have great weight in determining the chance of success of a candidate.

THE TUBERCULOUS TEST IN MILCH COWS.

DR. A. EYTON LLOYD.—The best plan would be for our correspondent to apply directly to the Principal of the Royal Veterinary College, Camden Town. He prepares tuberculin and sends out along with it instructions for its use, giving the temperature, etc., and some general observations.

TREATMENT OF GONORRHŒAL ARTHRITIS.

W. T. T. writes: In answer to "S," I have found most marked and steady improvement in obstinate gonorrhœal rheumatism follow the long continued administration of mercury and iodide. ℞ Liq. hydrarg. perchlor. ʒj; potassii iodid gr.64 or ʒjss; sp. ammon. aromat. ʒiij; aq. ad ℥viij. ʒss t.d.s. In three very chronic and severe cases, in which all the joints of the body were affected, with marked effusion in each joint, this treatment enabled the patients to return to active work. Of course any urethral affection must be cured. My reason for resorting to the treatment was based on the pyæmic nature of the affection requiring an attempt to soak the tissues with a powerful germicide, which the biniodide of mercury in solution seems to effect.

THE INEBRIATES ACT, 1898.

G. D. W.—No one can be sent to, or detained in, any reformatory or home under the Inebriates Act, 1898, unless he or she has been convicted of some offence, and has been found to be a habitual drunkard; or has been convicted of drunkenness and a minor offence after three similar convictions within the preceding twelve months. By the 1879 Act a habitual drunkard can be detained in a licensed retreat only after having applied for admission and detention, the application having been attested by a justice.

QUALIFICATIONS OF PUBLIC VACCINATORS.

MR. W. G. DUNWOODY, B.A., M.D.Univ.Dub. (Ely) writes: May I correct a statement of yours in your answer to "M.D." under the heading "Qualifications of Public Vaccinator" in the BRITISH MEDICAL JOURNAL of February 11th? You say the University of Dublin does not seem ever to have required a certificate of proficiency in vaccination. This is erroneous, as candidates for the M.B. in Dublin University have to produce certificates of attendance at vaccination classes and of proficiency at the end of such attendance. The course is taken out at the Local Government Board Vaccine Institute, 47, Sackville Street.

NOTES, LETTERS, Etc.

MEMBRANOUS COLITIS AND COLOTOMY.

MR. SKENE KEITH (London, W.) writes: In the BRITISH MEDICAL JOURNAL, p. 456, Dr. R. Neale states that my case of right inguinal colotomy for membranous colitis is not the first on record, and he brings forward two cases in support of his statement. In both of these the colon was opened on the left side. I entirely support Dr. Simpson's positive statement, that my case was the first where right inguinal colotomy with removal of the ovaries was performed. The production of two cases of a different operation does not shake my belief.

DR. J. CHRISTIAN SIMPSON (Cambridge) writes: With all deference to Dr. Neale, I think his note in the BRITISH MEDICAL JOURNAL of February 18th is most misleading. Both Mr. Keith and I are aware of the case treated by left inguinal colotomy, and reported by Mr. Mayo Robson in 1893, and also the case mentioned by Mr. H. B. Robinson, in which he opened the sigmoid or descending colon for ulceration in that part in 1891. But surely Dr. Neale has not read and digested the whole of my note in the JOURNAL of December 31st, 1898, or the paper by Dr. Lawrie in the JOURNAL of November 5th, 1898, in which Mr. Golding-Bird gets the credit of priority of performing right inguinal colotomy for membranous colitis in May, 1895. Why did Dr. Neale not correct (?) this statement? Again, Dr. Neale cannot have have done me the honour of reading or digesting my original paper and its full title which appeared in the *Medical Press and Circular*, July 29th, 1896, or the Further Note on the same case in the same journal for July 20th, 1898. If Dr. Neale can kindly refer me to a case of membranous colitis treated prior to June 24th, 1894, by performing right inguinal colotomy and double oöphorectomy, I shall be greatly indebted to him and sincerely apologise to the author and operator thereof for my erroneous (?) and positive statement.

ASCITIC FLUID.

DR. W. STEWART MCDOUGALL (Wallington, Surrey) writes: M.S., a single woman, aged 43, was first tapped by me on July 7th, 1893. On July 22nd paracentesis was again necessary, and a third time on August 29th. On the first two occasions I drew off only part of the fluid present, and each time after I left oozing took place from under the collodion dressing. Fagge's prognosis of this accident is gloomy in the extreme, but in this case no harm resulted. Afterwards oozing never occurred, for practically all the fluid present was evacuated at each paracentesis. On December 17th, 1897, I tapped her for the eighty-ninth time, and my successor tapped regularly up to her death, which occurred a fortnight ago. During the four years and a-half she was under my care the intervals between the tappings diminished from a month to a fortnight, and the amount of fluid withdrawn each time was about 5 gallons (800 ounces). I cannot give the maximum amount, but the above quantity was accurately measured on an ordinary occasion in 1893. In the first year of her illness she developed eczema around the paracentesis punctures, which disappeared when I ceased to apply collodion over the puncture, and simply dressed with carbolised lint for a day or two after tapping. Up to the end of 1897 she was able to go about two days after each operation, and was seldom confined to bed until my arrival for the next. While she was under my observation the only obvious changes in her condition were the development of "stigmata," an increasing tendency to ecchymosis from the slightest bruise, a progressive enlargement of the superficial abdominal veins, shrinking of the liver, enlargement of the spleen, thickening of the intestinal coats from deposit of lymph on them, and a diminution in the quantity of urine excreted. The diagnosis was cirrhosis of the liver, and this was supported by Dr. William Russell, of Edinburgh, who saw her with me in 1893. Unfortunately, as there was no *post-mortem* examination, this can never be verified. The case was published in the *Scottish Medical and Surgical Journal* of December, 1898 (before the patient's death). After December, 1897, Dr. Rutherford, Tongue, N.B., tapped the patient 32 times, and the maximum quantity was 30 quarts. She was a comparatively small woman, though her abdomen measured 5 ft. in circumference before tapping.

Lieutenant Cox will find recorded by Fagge a case of Sir T. Grainger Stewart's in which 606 pints were removed from the abdomen in twenty-one operations (averaging about 580 ounces each paracentesis). The patient recovered, so in all probability this average gives no idea of the maximum amount.

DR. F. J. SAWDON (Hull) writes: I notice in the BRITISH MEDICAL JOURNAL of January 28th, Lieutenant W. H. Cox inquires if 480 ozs. of fluid has ever been exceeded in one tapping. I have in my case book notes of a Mrs. W., aged 50. She was first tapped in 1882, and once in each consecutive year to 1884. Then the fluid increased rapidly to the end of 1886. The fluid was clear, and pale yellow. Time was taken in removing it (two hours). She never exhibited any signs of fainting or anything. She dressed on the third day, and went about her work as usual up to the date of the next tapping. Of course she became very anæmic from the immense drain on her. In my absence from home she was induced to become an in-patient in an institution. Here they removed the fluid, I imagine, too quickly, for she sank from syncope.

	Dates.	Fluid.		Dates.	Fluid.
1882.	March 20th	38 pints.*	1886.	April 16th	50 pints.
1883.	May 31st	38 ,,	,,	August 26th	50 ,,
1884.	February 28th	44 ,,	,,	December 29th.........	54½ ,,
1885.	January 29th	51 ,,	1887.	April 19th	54 ,,
,,	October 29th	54½ ,,	,,	July 27th..................	51½ ,,
			,,	October 20th............	56 ,,

* 1 pint = 20 fluid ounces.

ERYTHEMATOUS RASH PRODUCED BY SMALL DOSES OF QUININE.

MR. J. M. MORRIS, M.B.Edin. (Neath) writes: Dr. A. St. Lawrence Burke recounts an interesting case of the above in the BRITISH MEDICAL JOURNAL for February 4th. Having seen several instances I do not think it is so uncommon as he seems to judge. In fact, I consider that he is to be congratulated less upon the discovery of the rapid appearance of the erythematous rash than upon its prompt disappearance within 24 hours of withholding the drug.

In his case the patient had presumably taken 20 gr. in the course of the night, whereas in the following instance, which I met with some few months ago, a single dose of 4 gr. sufficed. A female patient, complaining of headache, was given this dose in a little warm milk. Within ten minutes she began to experience great tingling and irritation of the face and neck, and in less than half an hour an urticarial rash was seen to be spreading over this region. Moreover, within an hour of taking the quinine menstrual flux ensued, it being a week since the cessation of her regular period. The menstrual flow, in normal quantity, continued for over 12 hours, but the urticaria, along with considerable œdema, persisted for 4 days, during which the patient suffered much mentally owing to the hideous countenance that she presented.

My experience of these cases seems to show that they may occur in those who have been accustomed to take quinine without exhibiting any such reaction, but that once this has appeared a recurrence will certainly be met with, even when the very smallest doses of the drug are given.

ACADEMICAL COSTUME.

MR. J. M. CARVELL, M.R.C.S., L.S.A. (Catford, S.E.), writes: Under the above heading, one of your correspondents—"M.R.C.S.Eng."—states that in the clerical profession a licentiate of a theological college has no right to wear a hood, which is a distinctive privilege of a university graduate. With reference to the first part of the statement, I would refer him to the penultimate paragraph of the article on University Hoods and Degrees, in *Whitaker's Almanack*, page 709: "It has been resolved by the Upper House of Convocation, that all the theological colleges of the Church of England have a uniform hood for their non-graduate members.........each college, however, being at liberty to add to the hood a coloured edging, border, or binding, by which its own students might be distinguished." If the hood is a distinctive privilege of a university, how is it that hoods are granted to theological licentiates, the associates of King's College, London; associates, licentiates, and Fellows of the College of Preceptors?

ELEPHANTIASIS OF THE VULVA.

MR. THOMAS H. AQUINO, F.C.S., L.M.S. (Assistant Surgeon, Sholapore) writes: Adverting to Dr. William Renner's case of elephantiasis of the vulva published in the BRITISH MEDICAL JOURNAL of September 24th, 1898, I wish to remark that I had a similar case (brief account in the *Indian Medical Record* of May 1st, 1896):

S. E., a Hindu woman, aged about 22 years, was admitted into the Gadag Dispensary for elephantiasis of the vulva of seven years' duration. The left labium was chiefly affected, the growth forming a round, heavy mass of the size of a large pomelo, and pendulous. The tumour in connection with the right labium was much smaller and flattened laterally; the clitoris and the nymphæ were also hypertrophied. General health was fairly good. The tumours were excised one after another—the left one first—by bold and rapid sweeps of the knife, after having taken the precaution of emptying them as much as possible of their blood by keeping them in an elevated position for some time before the operation and by applying an elastic ligature tightly round the base of each just before beginning the operation. The bleeding was chiefly venous, and, though considerable, was much less than was anticipated and readily controlled. The clitoris and the nymphæ were also trimmed. The larger tumour weighed 8¼ lbs., the smaller 1½ lb. The raw surfaces left after the removal of the growths healed nicely and rapidly by granulation, and the patient made an excellent recovery.

From this it will be seen that the tumour removed by me weighed 2 lbs. more than Dr. Renner's. I may also add that the immense size of the growth and its situation necessitated its being pushed back between the thighs on to the nates whenever the patient wished to sit down—or, rather, squat down, as is the habit with natives. It also caused an awkward impediment in locomotion. In other respects the two cases presented many points of similarity.

MEDICAL TITLES.

HAIR-SPLITTING writes: Some years ago a patient came to me from a distance with a somewhat trifling surgical complaint. On asking if there was no doctor nearer his home who could attend to such a small matter, with some hesitation he replied: "Oh, yes, there is, but he is a very queer man, and we don't trust him very much in our neighbourhood." "How is he 'queer'?" I asked, and, with creditable hesitation, the man answered: "Well, you see, we are afraid there is something wrong there (pointing to his head). He calls himself 'Mr.' ——, and he won't allow anybody to call him 'Dr.,' and always says when we call him 'Dr.' that he is not a 'Dr.'; so we don't reckon to trust a man very much when he practises as a doctor but says he isn't a doctor." *Verb. sap.* I have since learned that Mr. —— is an exceedingly capable and conscientious man, and a licentiate of one of the Royal Colleges.

LETTERS, COMMUNICATIONS, Etc., have been received from:

A Dr. A. G. Auld, London Dr. R. Atkinson, Clifton; Alpha: Mr. J. A. Atkinson, Knaresborough; Aylesbury Dairy Company, Aylesbury; Apothecaries, Society of, Secretary of, London; Mr. R. B. Anderson, London; A. Z. O.; Mr. C. E. Ady, London. **B** Mr. P. B. Bentlif, Jersey; Dr. J. W. Batterham, St. Leonard's-on-Sea; British Medical Temperance Association, Secretary of, London; Birmingham and Midland Counties Branch, Secretary of, Birmingham; Mr. A. A. Bowlby, London; T. M. Bonar, M.B., Probus; Dr. E. G. Barnes, Eye; Mr. L. A. Bidwell, London; Messrs. Burgoyne, Burbidges and Co., London; Dr. Berliez, Grenoble; Mr. W. Bassett, Newport, Mon.; Dr. T. Beattie, Newcastle; Messrs. Burroughs, Wellcome and Co., London; Mr. J. Brunt, Fleetwood; Messrs. Baillière, Tindall and Cox, London; Dr. A. Brocchi, Paris; Dr. J. Brown, Bacup; Mr. J. W. Burdwood, Bourne. **C** Mr. A. Cheatle, Oxford; Mrs. Coats, Glasgow; Carnos Limited, Great Grimsby; Dr. L. Cobbett, Weybridge; Mr. F. W. 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Wilson, Cheltenham; West Kent Medico-Chirurgical Society, Secretary of, London; Miss C. S. Wilkie, Halifax; Mr. R. Williams, Liverpool; W. L. F.; W. T. T.; Messrs. Whitwell and Co., London. **X** X. **Y** Mr. L. T. Young, Falmouth; etc.

BOOKS, Etc., RECEIVED.

The Municipal Yearbook of the United Kingdom for 1899. Edited by Robert Donald. London: Edward Lloyd. 2s. 6d.

Pathogénie et Traitement des Hématuries Renales dites Essentielles. Par Dr. R. Robinson. Paris: Jouve et Boyer. 1899.

Anleitung zur Uebungs-Behandlung der Ataxie. Von Dr. A. Goldscheider. Leipzig: Georg Thieme. 1899.

St. Bartholomew's Hospital Reports. Edited by N. Moore, M.D., and D'Arcy Power, F.R.C.S. Vol. XXXIV. London: Smith, Elder and Co. 1899. 8s. 6d.

The Englishwoman's Yearbook and Directory for 1899. By Emily James. London: A. and C. Black 1899.

Whitaker's Naval and Military Directory and Indian Army List, 1899. London: J. Whitaker and Sons. 5s.

The Annual Charities Register and Digest. London: Longmans, Green and Co. 1899. 4s.

Les Verres Isométropes. Par Dr. D. Bourgon. Paris: A. Maloine. 1899 Fr. 5.

Apoplejia Cerebral. Par J. C. Castelvi. Barcelona: L. Tasso. 1899.

*** In forwarding books the publishers are requested to state the selling prices.

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AN ADDRESS

ON THE

INDIVIDUAL VALUE OF THE SYMPTOMS IN PERFORATIVE PERITONITIS, MORE ESPECIALLY AS REGARDS OPERATION.

Delivered before the Hunterian Society.

By CHARTERS J. SYMONDS, M.S., F.R.C.S.Eng.,
Surgeon to Guy's Hospital.

MR. PRESIDENT AND GENTLEMEN, I shall endeavour to fulfil your trust by asking your attention to a subject of practical interest. I propose to deal with acute perforative peritonitis, and especially to examine into the value of the symptoms as directing operation. There is no more important question before us to-day, for while on the one hand it must be our aim to avoid operating unnecessarily, on the other hand it must be recognised by all that early operation has saved many lives. Though one would make the statement with the deepest sense of its gravity, I think it not too much to say that operation in these acute diseases need never be harmful however early it be undertaken.

Our recent knowledge has taught us the frequency with which the appendix is the cause of acute symptoms and my remarks will centre around the acute affections of this body. In using the term "perforative" I must add that so far as the appendix is concerned, though the symptoms are acute and alarming, there is at the moment no pathological perforation in the majority of cases. My title must be regarded as a clinical one.

The patient, whose case I will relate as a type of the acute condition, was a woman of 50. In better health than usual, on account of a holiday, she was seized at 10 o'clock on Wednesday night, April 29th, with severe pain in the abdomen and vomiting. The bowels acted three times within a few hours. The pain continued through the night. She was first seen and examined by Dr. Hugill, on Thursday, April 30th, fourteen hours after the onset. The pain was chiefly limited to the right inguinal region, although the whole abdomen was more or less tender. There was slight general distension. The temperature was 99°, and the pulse 80. She was given a hypodermic of morphine. At 6 P.M. the temperature was 100.8°, pulse 96. The pain still continued, but was less severe; the abdominal distension had not diminished, and the right inguinal was still the more tender region. The patient felt sick, but there had been no vomiting. Five hours later (11 p.m.) the temperature registered 100.2°, and the pulse 92. She complained of feeling faint, and of pain in the back; the abdomen was resonant, and moved slightly on inspiration. There was marked tenderness on the left side The second night was passed with much restlessness, and very little nourishment was taken. Early in the morning, somewhere about 5 o'clock, she was taken with intense pain all over the abdomen. When Dr. Hugill arrived soon afterwards he found her in a condition of collapse. The temperature had fallen to 97°, the pulse was rapid, the whole expression typical of the most severe peritoneal injury. A full dose of morphine was administered hypodermically. In eight hours the temperature stood at 103°, the pulse 128; the abdomen did not move so freely on inspiration; it was distended, and very tender. One hour-and-a-half later the temperature of 103° was maintained, the pulse had dropped to 112, there had been a little vomiting, and the pain continued to recur, though some relief was obtained from hot applications. When I arrived at 6.30 P.M., forty-four hours had elapsed since the onset. The patient was now practically free from pain, and thought herself much better. She conversed in a bright, lively manner, and could not understand our taking a serious view of her case. The abdomen was uniformly distended, and did not move on inspiration. There was distinct resistance in the right iliac region, with tenderness, but no dulness, and no localised swelling. The temperature was 102°, and pulse 100.

The main question was, whether the case was one that might terminate in localised abscess, or whether it would not be wiser to operate at once. We decided to operate, and for the following reasons:—The sudden onset indicated a severe peritoneal injury; the early abdominal distension, growing more marked and unrelieved by treatment, indicated extending irritation; the localising symptoms settled the seat of the disease. Then the continued pyrexia pointed to a septic process in the wall of the appendix itself. We had as a special point the sudden collapse of the morning, marking probably a fresh and sudden extension. On these grounds, in the face of the placid condition into which the patient had entered, we incised at once. A foul abscess was found, the appendix was gangrenous, the adherent great omentum was black and green, and the suppuration was extending towards the pelvis. After removing the omentum and appendix and flushing with an abundance of boiled water, it was thought wiser to put a drain into the pelvis above the pubes. A tampon of gauze was placed in the inguinal wound deep into the cavity. The operation was well borne, and by 10 P.M. the temperature was 101° and pulse 104. For the first twenty-four hours there was a good deal of distension, relieved, however, by the flatus tube. Hiccough occasionally gave trouble, and there was some sickness. Only a small amount of thin reddish fluid was withdrawn from the drainage tube, which was removed in thirty-six hours. The inside of the tampon was removed in twenty hours and replaced. It is unnecssary to relate the further progress of the case, which was uneventful, as I am dealing mainly with the question of operation.

Now when a patient in perfect health, no matter of what age, is seized in the way I have related, what are the prominent causes that may give rise to the symptoms? Dr. Fagge used to say we should think of three conditions, namely, perforation of the appendix, perforation of the stomach or duodenum, and a ruptured ovarian abscess, or, as I am told is more correct, ruptured pyosalpinx. Such a remark was not intended to be complete. We must bear in mind such conditions as ruptured tubal pregnancy, ruptured hydatid and gall bladder, suppurating mesenteric gland, perforation by a gall stone on its way to the duodenum, and even tuberculous peritonitis.

PAIN.

Taking the symptoms in detail, the first point we will consider is the value of pain at the onset of the case. It was sudden and alarming, was felt all over the abdomen, and was accompanied by sickness. These initial symptoms are common in three other conditions, which may be termed the "colics," namely, renal, hepatic, and intestinal colic. In these the onset closely resembles the graver complaints, and the diagnosis is often difficult. As a broad general distinction separating these two groups of cases, it may be said that the colics improve quickly, are not accompanied by a sustained elevation of temperature, that in two of them localising symptoms quickly develop, for example, jaundice in one and vesical irritation in the other, while in the third (intestinal), if not soon relieved, the symptoms become very grave, the pain remains general, and indications of strangulation and obstruction of the bowel arise. Here let me point to some errors that may occur if we rely wholly upon the initial symptoms, especially pain.

A man aged 42, a couple of hours before we saw him, was seized with violent abdominal pain and sickness. He was in great agony, rolling about in the bed, with pain in the "pit of the stomach," perhaps a little to the right of the median line, and he was retching and vomiting. The diagnosis was that of perforating ulcer of the stomach.

My present impression being that it is as well to allow such cases to pass into the stage of repose usually following the onset before operating, we waited six hours. On going to the man's bedside, we found him breathing rapidly, with dilating nostrils, with great pain in the side, and all the aspects of pleuro-pneumonia. The man went through an ordinary right basic pneumonia, and went out quite well. Within a week of this occurrence we were called one evening to a woman between 50 and 60, with great abdominal pain and tenderness about the region of the gall bladder. She was somewhat sick; a little jaundiced, had a high temperature and a rapid pulse. The diagnosis first suggested was that of suppurating gall bladder. After carefully considering her case, and noting that the pulse could not be counted at the wrist, because of its great rapidity and irregularity, we decided that operation was out of the question. This woman went through an attack of acute pneumonia on the right side, and walked out of the hospital quite well.

Not more than a week after these instances, a girl of 20 was brought with a history that at 11 P.M. she was seized with violent abdominal pain and vomiting, both of which persisted up to the time we saw her, about 3 P.M. the following day. We explored, with the expectation of finding a perforating gastric ulcer, for there was a long history of indigestion, and she was young. We found a perfectly normal peritoneum and stomach, closed the wound and put her to bed; she was never sick again, got rapidly well, and we came to the conclusion it was all hysteria.

Pain at the onset is no doubt an indication of severity, allowance being made for the difference in the ability of patients to bear pain. When pain is localised to the right iliac fossa, its value as to the seat of trouble is obvious. When pain is continuous, I mean is independent of handling, and thus to be distinguished from tenderness, it is a sign of great value, and an important indication for operation.

I would say that pain recurring after the period of repose is always a grave sign, and an important indication for operation. Therefore, we see the absolute necessity of not obscuring this valuable guide by the continuous use of sedatives.

GENERAL ABDOMINAL DISTENSION AND IMMOBILITY.

These are two of the most important symptoms. In the present case, the abdomen when first seen, some fourteen hours after the onset, was slightly full, and when I saw her forty-four hours after the onset, it was uniformly distended and tympanitic, and was not moving on respiration. What does this distension in the early stages signify?

It has been clearly shown by Dr. Malcolm that the early distension occurring after operations, called by Mr. Tait peritonitis, and which he claimed to cure with sulphate of magnesia, is reflex. It is not peritonitis, but a sympathetic irritation, and is relieved by a flatus tube or a turpentine enema. This early distension is, I take it, the effect of injury to the peritoneum, or more correctly to the abdominal sympathetic. I use the word "injury" advisedly, for we see these symptoms frequently in abdominal injuries, and after operations of all degrees of severity involving the abdominal contents. The first effect of perforation is injury, and is quite comparable to that inflicted by an operation or ordinary traumatism.

Let me here remark that we must examine the abdomen carefully to rightly estimate this distension. Everyone must have observed that when a patient is placed upon an operating table the distension appears much greater than in the bed, whether the enlargement be due to intestinal distension or tumour. In bed the patient lies in a hollow and much of the swelling is concealed. I am, therefore, in the habit of bringing the patient to the edge of the bed, tucking a pillow under the other side so as to let the body be as flat as possible. The value also of bringing the bed well into the light and drawing aside the curtains so as to obtain a really good inspection cannot be over-estimated, for upon the amount, character, and distribution of the distension the diagnosis may depend. This distension, then, following upon an acute onset has a most grave significance. If it yield in twelve hours to a turpentine enema or a flatus tube, we shall know it is reflex and not serious; but if it do not yield or it recur we must look upon it with great concern, for it does not disappear so long as there is progressive peritoneal irritation. Lastly, if, as in this case, it persists during the period of repose, it becomes a valuable indication for operation, and, together with temperature, decided me to advise interference. In attempting to separate these cases of acute perforation from those of acute obstruction, I would say that the early appearance of distension and its continuous presence point rather to perforation. In ordinary cases of strangulated hernia distension is by no means an early sign, being often absent after three to four days. When the strangulation is within the abdomen altogether the distension is earlier, but is not so early or so marked as in perforation.

To summarise the value of distension:

1. It is absent in the early stages, when there is rigidity only.

2. In all cases the general distension, which does not yield to a tube (or turpentine enema) on the second or third day, indicates progressive disease, and the case will probably require operation.

3. When a perforating gastric ulcer is suspected, there may be no distension for twelve to twenty-four hours, at which period it is a serious symptom.

4. In appendix cases, general distension without localised tumour, without dulness, but with pain and tenderness, has a grave significance.

If with the points mentioned in the previous paragraph, the temperature be continuously raised, the case is still more grave, and may call for immediate operation, even forty-eight hours after the onset.

When general distension has subsided, or yielded to the flatus tube or an enema, and a localised swelling can be felt, the outlook is favourable. Four leading signs remain to be watched—namely, increase of swelling, aggravation of pain, persistent elevation of temperature, and the general condition I will refer to, as indicative of septic absorption, in the absence of pyrexia.

The first two, associated as they must be with one or other of the last two signs, form a group of symptoms pointing to the necessity of immediate operation.

In examining these distending abdomens, movement of the bowel or coiling will sometimes be noticed. Now, this is generally seen in chronic cases, as, for example, obstruction in the large intestine or adhesion in the small, but it is common to see it also in strangulated hernia, and in these it is not an unfavourable sign, as I have seen many such cases recover after operation. This visible peristalsis in acute obstruction is uncommon, though its occurrence in strangulated hernia comparatively frequently would lead us to expect it. It was well marked in a case of obstruction from impacted gall stones on the sixth day, and it led me to give a more favourable prognosis than other conditions justified.

The next sign is that of localised tenderness and swelling. In the case under consideration, where the diagnosis of the site of perforation was never in doubt, the pain was soon localised to the right iliac fossa, and the only question remaining was as to the wisdom of operating at once. When a swelling is not found in the iliac fossa, we must examine the rectum. Here I have on several occasions found the abscess filling the pelvis, and even when no abscess has formed, the swelling around the appendix may be felt and the diagnosis made.

When an appendicitis runs a favourable course the distension quickly subsides, and the swelling can be isolated. It may be said, in fact, that when in appendicitis the swelling can be felt, immediate anxiety is over. By immediate, I mean for a few hours. If it increases steadily, then operation is called for; especially is this demanded if the temperature keeps high. But when the temperature is of the hectic type there is less immediate risk. In acute cases, however, there may be no local swelling to be felt and no dulness. These are the difficult cases. The general distension masks the dulness and conceals the swelling. The presence of gas in the abscess in a few cases contributes to the resonance. In the case here related, though there was a fair amount of pus, there was no dulness; and this is a frequent observation. We may take it, then, that localised swelling and dulness, when present, are of great value; but that with large collections of pus these signs may be absent. One curious point is to be noted, and that is, that tenderness and pain may be felt in the left side and obscure the diagnosis. I have several times seen this, and on the whole think it of little value. I mean it does not indicate suppuration on the left side. Persistence or increase of tenderness and pain, with an increasing swelling, demand operation in the presence of a normal temperature and pulse, but especially if the temperature be high. Moreover, the inability to find swelling and dulness, in the presence of pain and distension, marks a serious case.

VOMITING.

This symptom is usually present in all cases, certainly in all where a sudden onset occurs. The vomiting is immediate and subsides with the pain, and is followed by repose, and this repose will continue a variable time, even till the last few hours of life. The greater the amount of sedative the longer the delay. This form of vomiting marks an important distinction between perforative peritonitis and strangulation of the bowel. Vomiting is more persistent in strangulation. In the perforating cases vomiting is early, subsides rapidly, and a period of repose follows. Its persistence would lead me to diagnose strangulation. Fortunately it is a symptom which presses for operation in any case.

Notice that while it always accompanies the onset of perforation, it may be, and often is, absent in cases of gangrenous appendicitis. As a symptom of onset it indicates severity or suddenness, and is present in most cases that run a favourable course. If it recurs after careful feeding, rest, and a sedative, it becomes an alarming symptom, and as a rule the case demands immediate surgical interference. Of all the symptoms, it may as a single one be most relied upon. Its value is enhanced if it return during the period when all food is withheld.

If vomiting be an important symptom its absence has a significance equally great. In fact I should be disposed to say that the absence of vomiting causes more anxiety when the question of operation is raised than its presence. We must not, in fact, rely upon this sign as a necessary indication for operation. In the period of repose it is absent, for the initial attack empties the stomach, and often the lower bowel as well. Then, again, our method of treatment aims at preventing vomiting. We withhold food, giving only the simplest materials; we keep the patient at perfect rest, and administer sedatives. Thus we delay the reappearance of this important guide. It has often appeared to me that the patient who comes into hospital after home treatment—comprising, as it does, little rest to body generally, frequent attempts at feeding, one or more doses of oil, and gives in consequence a good history of two to three days' vomiting—runs a better chance than one who has been carefully treated and the vomiting kept in abeyance. I am not sure, in fact, that a good meal of bread and milk, for instance, or a free drink given when we were doubtful as to the existence of an obstruction, would not be a good treatment. Such a measure is justified by the observation that those patients who in obstruction or appendicitis are frequently sick during the first two or three days appear to be none the worse for it, and being in consequence operated upon early generally do well. I mean that where a case has been very carefully treated vomiting may be absent, while the patient is steadily getting worse. This we see constantly in the septic peritonitis of appendicitis, and we see it in gall-stone obstruction. We must not wait for this sign; if we do, the only opportunity for operation may be lost. We must remember that strict abstention from stomach feeding retards for a time its occurrence, and when vomiting does recur under careful treatment the end is probably near.

TEMPERATURE.

It has been long known that the temperature of the patient is of no particular value in cases of strangulation of the bowel. In hernia, for example, the temperature is always low, and the same is true of internal strangulation. Nor do we find the temperature raised in cases of perforating gastric ulcer, nor again in a ruptured tubal pregnancy. When the temperature however does rise in one of these acute cases, and remains elevated, it has a special significance, is a valuable aid to diagnosis, and an important indication for operation. A rise at the onset, followed by a rapid decline, and succeeded perhaps by a rise of one degree, or a degree and a half, indicates irritation, as for example that due to the passage of a stone along the ureter. This temperature is not of a septic nature. The temperature in the case under consideration rose early and remained high.

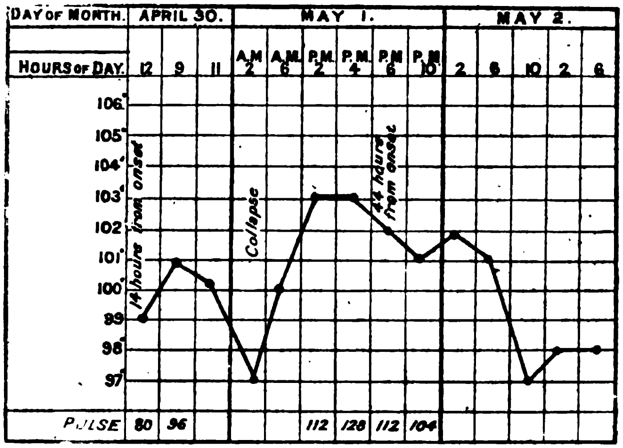

Chart I.

One might furnish a large number of similar cases from one's own experience. To take one other instance. A girl of 17 was seized during Monday night with diarrhœa and sickness and was given, at 2.30 A.M. on Tuesday, a dose of senna, followed by three enemata as home treatment. Later on Tuesday the temperature was found to be 101°, and was high in the evening. The records in the accompanying chart begin on Wednesday, the third day.

When called to decide the question of operation we had, in the presence of a general condition, exactly similar to the text case and with no local dulness, the best of all guides, a temperature which had been continuously high for two and a half days at least. In contrast with these illustrations let me refer to cases where the temperature, though it may rise high in the early stages, falls with advancing disease. No better illustration can be given than a case seen with Dr. Dunbar at Clapham. The man was first seen on the third day with a temperature of 101.8° in the morning and 102.6° in the evening, and as you will see, it fell in a most deceptive way, especially as the pulse fell in association.

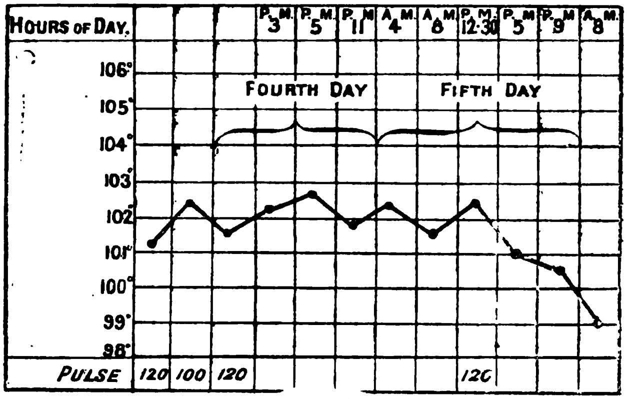

Chart II.

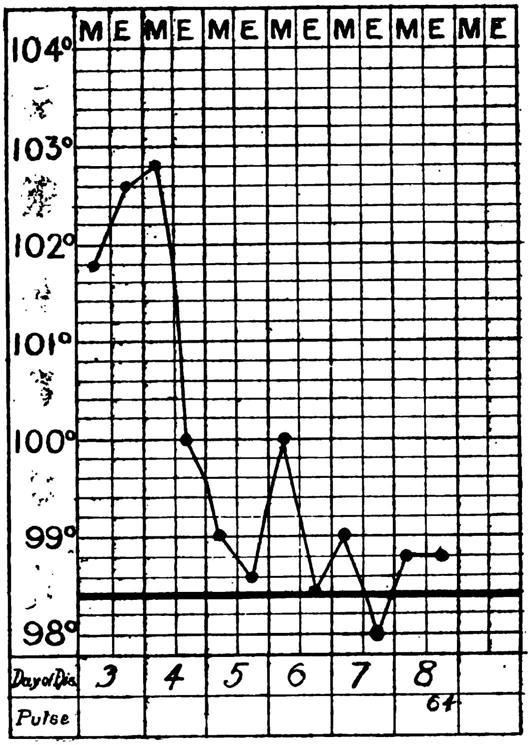

Chart III.

It was in this case that the general condition to which I refer later proved so valuable a guide, and in conjunction with local pain and tenderness, decided operation. A large and very septic abscess was opened through the loin and recovery followed.

I might give many such examples to illustrate this pregnant fact, namely, that temperature and pulse may steadily fall, while dangerous septic processes are advancing.

When it is elevated, as in the two cases I have related, what does it signify? These high elevations point to septic infection of the connective tissue of the appendix, for where the peritoneum alone is concerned absorption is slight, but if the connective tissue be involved the absorption may be as rapid as in any other part of the body. I will go so far as to say that such a temperature as occurred in the case under consideration points to the necessity of immediate operation, and I believe that the appendix will almost uniformly be found to be gangrenous to a greater or less extent. What may happen if we do not interfere in such a case? First, the septic process extends to the peritoneum and the patient dies. Secondly, absorption may take place in the liver, leading to pylephlebitis—a complication uniformly fatal. Thirdly, its necrosis may be partial or complete, the entire appendix coming away on opening a localised abscess.

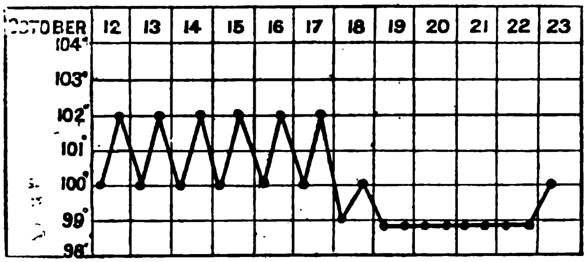

Chart IV.

Chart IV. depicts the temperature in such a case. It may be divided into three periods, first, from the sudden onset on October 12th to October 18th, a period of six days, when the morning record averaged 100°, and the evening 102°. Secondly, October 19th to the 23rd, during which time—five days—it was normal both morning and evening; and thirdly a rise to 100° up to the fourteenth day, when a large abscess was opened. The reading of such a temperature seems to be that there was a septic process in the connective tissue of the appendix, lasting for a week, during which time the temperature was high. When this ceased and no further absorption took place, the temperature fell, though there was a large collection of pus around the sphacelated appendix.

The temperature in this case gives further support to the view I suggest—namely, that the high and continuous temperature indicates a septic process in the connective tissue of the appendix. When this is completed the temperature falls, though a large abscess lies in a portion of the peritoneal cavity, and is increasing. Absorption sufficient to cause elevation of temperature does not take place through the peritoneum, now covered and protected by lymph. We may look upon the fall of temperature as indicating a cessation of the septic process in the appendix itself. When all danger of secondary infection has passed, rupture of the abscess into the peritoneal cavity is the remaining danger, and this not infrequently occurs on the tenth or fourteenth day.

It has also been suggested that a bacillus is absorbed which depresses the temperature. Certainly there would appear to be some such reason for the notable absence of temperature, though I prefer, as more in accord with what we see elsewhere, the explanation I have given above; for could absorption take place, there are abundance of pyogenetic organisms present in the pus.

To summarise the directing value of pyrexia:

(*a*) If the temperature be high in the initial stages—say 102° to 104° for the whole of two days—it indicates a septic process in the wall of the appendix. Before a localised abscess can form there may be fatal metastasis to the liver. This continuous temperature, as in Chart II, as a single guide may be relied upon as an indication for operation. While a good number end in localisation, and may be opened on the eighth or fourteenth day, an almost equally large number die from extension to the peritoneum, or from metastatic abscesses.

(*b*) If this "continuous" temperature fall after five to seven days, there will still almost invariably be suppuration, which will be evidenced by distension, increasing pain, the general signs of septic absorption, even with a normal pulse and temperature (see Charts III and IV).

(*d*) The absence of pyrexia, at the time we are called to decide the question must be discounted, in the face of a good history of onset, of early fever, and the fact that the patient is not decidedly better after four to six days from the onset.

(*e*) When the fall in temperature is accompanied by diminution of pain and local tenderness, so that the swelling can be outlined; when the distension yields, and the general condition is free from the signs of irritation, then operation is not immediately necessary. Fortunately this occurs in the great majority of cases, and spontaneous recovery follows. In a fair number, a local abscess of slight infectivity results, giving plenty of time for decision, and carrying little risk.

PERIOD OF REPOSE.

The most striking feature in the case forming the text for these remarks was the general condition that existed just before operation. Too much attention cannot be given to this stage. Let me describe it more fully. The woman lay in bed feeling well; there was no distress, no general abdominal pain, the pulse was quiet, she felt very much better, and in her own opinion and in that of her friends was rapidly recovering. The food taken had been retained, and the change from the acute pain in the morning and that of the onset was so complete as to give a general impression to everyone of true improvement. There were three signs, however, which showed that this was fictitious. First, the temperature was high, and had been so—except when it suddenly fell for a few hours—for more than twenty-four hours; secondly, there was general distension of the abdomen, which had not yielded to a tube; and thirdly, there was an increased swelling in the right iliac fossa. These three associated, as in this case, point to the immediate necessity for operation.

I wish now to draw attention to the value of this period of repose. In nearly all the acute cases a stage is reached soon after the onset marked by a cessation of all acute symptoms. The patient passes, unaided by sedatives, into a condition of repose. A lull takes place in the advance of the disease, or, more correctly, the relief from pain and sickness and the general sense of comfort experienced by the patient are interpreted as being signs of improvement. This period of repose, if wrongly interpreted, may lead to disaster, and, if deepened by the regular administration of sedatives, will almost certainly do so. It is in its early stage a period of safety—one in which operation is successful. That this lull takes place in all these four conditions let me illustrate by some striking examples. A girl of 20, seen forty-eight hours from an acute onset, was considered so well on arriving at the hospital that operation was postponed until next morning, when a foul abscess was evacuated.

In a case of perforating gastric ulcer the patient, a girl of 20, was at first refused admission, and no operation was deemed necessary by the physician, yet in a few hours, when the abdomen distended and operation was performed, it was too late.

The first case of perforating gastric ulcer to which I was called by my colleague, Dr. Perry, was a man of 45. The perforating symptoms occurred twelve hours before, and few, I believe, would have recognised the necessity for immediate operation. The pulse was 60, the man calm and free from pain, the abdomen free from distension though rather rigid. I was obliged to confess that to me there seemed no good reason for operating. I immediately, however, carried out the operation requested, and had the satisfaction of finding a perforating ulcer on the anterior wall, from which bile and gastric contents were escaping.

We must not wait for the graver symptoms if we are to save these patients. Details might be given of any number of cases where waiting for the development of such symptoms as vomiting, elevation of temperature, characteristic pulse, and pain, have led to fatal results.

GENERAL CONDITION.

I have in relating my case remarked that the general condition of the patient was deceptive, and have enlarged on this point under the "period of repose." There is another general condition occurring in appendix cases where suppuration exists in the presence of normal pulse and temperature, which is a most important guide to operation. It was well exhibited in a man, aged 22. On the eighth day the pulse was 64, the temperature 98.8°, but the aspect of his face and skin was that of septic poisoning. He was flushed, with a moist skin; the pulse was irritable, the tongue furred, and he was restless. One expected a temperature of 102°, and a pulse of 110. The fact that he showed this condition on the eighth day pointed to extending suppuration, and rendered operation imperative. A large collection of foul pus was evacuated by the loin, and he recovered. In this case, in addition to the general aspect, we had extreme tenderness in the anterior and posterior lumbar regions, and definite fulness, though no dulness.

Summing up the study of these symptoms, let me add that the diagnosis cannot always be made at the first visit. It is by the wise conduct of the case and careful watchfulness that success is attained and mistakes avoided.

My own experience is drawn from cases seen in hospital at various times after the onset, or in private also at various intervals, and from such experience I venture to draw up the following method of treatment and after-care.

In the first place, when called to an acute case the various symptoms must be written down. An apparently simple colic may prove to be a perforating gastric ulcer or, again, we may find ourselves being elaborate over an ordinary stomachache. It may be quite possible to make a diagnosis at our first visit. Much depends upon the time that has elapsed since the onset, and this interval must be carefully borne in mind. We may see the patient during the pain and stress of onset or, again, after the period of repose has set in, or later when pain has recurred and the third stage of the attack entered upon, or, lastly, when the pulse is failing and the patient's condition negatives any interference. The effect of sedatives again must be estimated if administered before we see the case, and all the symptoms weighed carefully in the light of the period upon which the case has entered.

If we can decide that a gastric ulcer has perforated, a tubal pregnancy ruptured, or find the worst and most acute form of perforating appendix, then operation offers in most cases the only hope. I say in "most cases," for it is well known that spontaneous recovery does take place in all these cases, even when the early symptoms are most urgent.

There are cases of appendicitis alarming in their fulminating progress, in which operation to be successful must be undertaken within twenty-four hours. In one instance we operated successfully nineteen hours from the onset, found a gangrenous patch at the root of the appendix surrounded by pus, and so situated that there could have been no lateral boundary.

Suppose we are called in at the period of onset, and cannot decide between the "perforative class" and the "colics," what is our best line of action? If the pain be moderate and subsiding the best plan is to apply hot fomentations and dispense with sedatives, give no medicine of any kind (unless it be a carminative placebo), and make a second visit in four hours. If the pain be great we must administer a dose of opium—hypodermically, if possible—employing the smallest quantity that will give relief, and then make our second visit in four to six hours. The importance of this early second visit cannot be overestimated. Over and over again a patient has been ordered a purge for an attack of colic at a first visit, and at the second a graver diagnosis has been made.

Having given a hypodermic injection, or 20 drops of Batley's solution every hour till the pain subsides, we enter upon the second stage of our case. Repose follows, as I have pointed out, naturally in most cases, and is deepened or initiated by the sedative, and at the second visit the obvious comfort will screen the signs of advancing disease.

Now we enter on a stage in which an error may be fatal, and in which everything depends upon the accurate observation of the symptoms and the correct use of sedatives. No words are too strong in which to condemn the prescription of opium to be given by an attendant at regular intervals. The only safe plan, and one I would urge as a routine practice, is to give the sedative when the visit is made. We can time this second visit, and adjust the dose, so that we see our patient free from the effects of the drug, and are in a position to review the symptoms, little if at all masked by treatment. Again, when the period of repose sets in, as it frequently does after the initial dose, no sedative is required. If we have a simple colic to deal with, a single dose will be sufficient, and for the rest fomentations will answer, and the same may be said of the many cases of appendicitis that recover. I remember Sir Samuel Wilks saying over an appendix case, many years ago, that he had never seen anyone die for the want of a purgative. I am afraid I must say that I have seen a good many die because sedatives were regularly and continuously employed. In the case under consideration, a single full dose was given by Dr. Hugill at his visit and nothing was ordered, so that I saw the patient free from the effect of opium, and was able to make good observations. When a second dose is required, after, say, twelve hours, and especially if required after twenty-four hours, then the case begins to look serious, and we can put aside many of our possibilities. The advantage of a second visit within a few hours, say six, is of the greatest value, and in all cases presenting a serious initial aspect should be made.

I have more than once been called to a case, and withheld operation, and at a subsequent visit when the patient at my request was free from opium, operated, or, on the other hand, was equally certain that no operation was or would be required. I am fully aware that frequent visits are often difficult to make; still, I hold it a paramount duty to stand by these acute cases for at least forty-eight hours, so as not to miss the development of any symptom. By that time, we know pretty well how the case will go.

In offering these observations I do not forget that each case has an individuality. The ability to endure pain, we all know, is a most variable factor. In the most simple appendix case, a patient may require sedatives for several days, and, on the other hand, in the most serious septic cases there may be no pain at all, at least not enough to demand a sedative.

How may we know that the case is doing well? Relief from pain in the absence of sedatives will be one of the leading signs, but one of the most misguiding. In appendix cases there will be diminution of distension; we can localise the swelling though it may be very tender; the patient does not require any further sedative; sickness has not returned, and, if distension exists, it yields to the enema or tube. Now, in the great number of appendicitis cases these signs of improvement will appear within twenty-four or forty-eight hours. Most of these will get well without further symptom; others will end in the formation of an abscess, giving plenty of time to form an opinion and to direct treatment. When a case is not doing well, I would say that perhaps one of the most valuable of the early signs of advancing disease is general distension of the abdomen, then tenderness, the absence of local swelling, the absence of dulness, the patient continues to complain of pain, and if with these there be a rise of temperature and of pulse we have cause for the greatest anxiety.

In the perforating gastric ulcers, if we cannot form an opinion at the first visit and have followed the line of treatment I have suggested, then the first sign of distension or of renewed pain indicates the commencement of peritonitis.

Turning now to the question of operation, it will be gathered from what has preceded that I am in favour of early interference, though we may not infrequently open an abdomen to find everything healthy and the diagnosis wrong. Now the more frequently we operate in these acute cases the more often will we find mistakes, and therefore we should be in a position, before undertaking such an operation, to say that if the case end in a simple exploration, no harm will result. The responsibility attending this position everyone will understand, and will certainly appreciate, if in their hands a fatality occurs in conducting such an exploration. We encounter the same problem in severe abdominal injuries. Here it is very difficult to distinguish between the early signs of shock and those indicating rupture of the intestine or other viscus. The only safe plan is to see the patient every three or four hours until symptoms indicating definite progress one way or the other have developed.

Such an experience and training it is impossible for us all to obtain, or the judgment and knowledge that go with it. But even those less happily placed can at the present day be fairly correct in method, and where life is in peril and no other help available, the best under the circumstances must be done. How good and how successful this best has become in our smaller towns and cottage hospitals, we have only to look at the admirable records in the journals to appreciate. In speaking, therefore, freely of operation, of the small risk attending early exploration, in advocating early interference, I am fully conscious that such a measure of success can only be obtained in the hands of an operator whose training makes an error in method almost impossible. To error in judgment we are all liable; we may err in deciding upon operation, we may err in the management of the difficulty we encounter, but as our means for diagnosis improve these errors will grow less.

THE ARRIS AND GALE LECTURES
ON
THE ANATOMY AND SURGERY OF THE PERITONEAL FOSSÆ.

Delivered at the Royal College of Surgeons of England,

By B. G. A. MOYNIHAN, M.S.Lond., F.R.C.S.Eng.,
Assistant Surgeon, Leeds General Infirmary, etc.

LECTURE I.—THE DUODENAL FOSSÆ.—DUODENAL HERNIA.

Mr. President and Gentlemen,—The subject I have chosen for the lectures which, by the grace of the Council of this College I am permitted to deliver, is the anatomy and surgery of the peritoneal fossæ. In the first lecture I propose to consider the anatomy of the duodenal fossæ, and the various forms of duodenal hernia. In the second I shall describe the pericæcal fossæ and discuss the reported cases of hernia occurring in the neighbourhood of the cæcum. In the third lecture the intersigmoid fossa, and intersigmoid hernia and hernia into the foramen of Winslow will be discussed.

The Duodenal Fossæ.

In describing the anatomy of the various fossæ found in the duodenal region it is well to clear the ground a little by referring to the exuberant and redundant nomenclature that has been adopted by various writers at different periods. Most unfortunately the same name has been adopted to describe entirely different fossæ. The name "duodeno-jejunal" has been applied to at least three separate pouches. It is a matter of no little difficulty to choose an exactly appropriate name. I have given the most apt title first, and the alternative names are mentioned in order to avoid misunderstanding.

I have examined for the purposes of these lectures over 200 bodies, not consecutively, but when time and opportunity permitted. In all cases where a vestige of old peritonitis existed I have made no record. I have also examined the bodies of 34 fœtuses of all ages.

The varying descriptions given by authors to the same fossa and its determining fold may be readily accounted for. The folds and fossæ vary in their appearance according to the age of the patient. In the fœtus and in children they are very distinctly and clearly seen. In the aged, owing to the deposit of fat, traction effects, and so forth, they may become considerably altered. The true typical forms are seen in the young, and it is upon observation of young subjects that I have based my descriptions.

I recognise the following fossæ as occurring in this neighbourhood:

1. The superior duodenal fossa.
2. The inferior duodenal fossa.
3. The posterior duodenal fossa.
4. The duodeno jejunal fossa.
5. The intermeso-colic fossa.
6. The infraduodenal fossa.
7. The paraduodenal fossa, the fossa of Landzert.
8. The mesenterico-parietal fossa, the fossa of Waldeyer.
9. The parajejunal fossa, the fossa of Brösike.

1. The superior duodenal fossa (Recessus duodeno-mesocolicus superior) (Fig. 1) is present in from 40 to 50 per cent. of cases. It may exist alone or with the inferior duodenal fossa. It lies to the left of the ascending portion of the duodenum. It is bounded in front by the superior duodenal fold, triangular in shape, presenting a lower free margin, slightly concave, whose inner end is blended with the peritoneum on the duodenum, and whose outer margin is lost on the posterior parietal peritoneum.

2. The inferior duodenal fossa (fossa duodeno-jejunalis of Treitz; recessus duodeno-mesocolicus inferior of Brösike). (Fig. 1.) is the most frequent of all the peritoneal fossæ in this region, being present in from 70 to 75 per cent. of cases. It is placed on the left side of the ascending portion of the duodenum opposite the third lumbar vertebra. The orifice looks upwards, and is opposed to the mouth of the superior fossa. The fossa is bounded by the inferior duodenal fold, thin, sharp, and with a concave upper margin. The inferior mesenteric vein and the left colic artery are generally found well to the left side of the point of fusion of the fold with the parietal peritoneum. The fossa is liable to variation in size and extent. Treves has figured many of the aberrant forms. In general the first joint of the middle finger can be easily passed into the fossa. The superior and inferior duodenal folds are not infrequently blended at their outer extremities, so that a single oval orifice leads to the two fossæ. The inferior fossa very commonly extends some little distance behind the ascending portion of the duodenum.

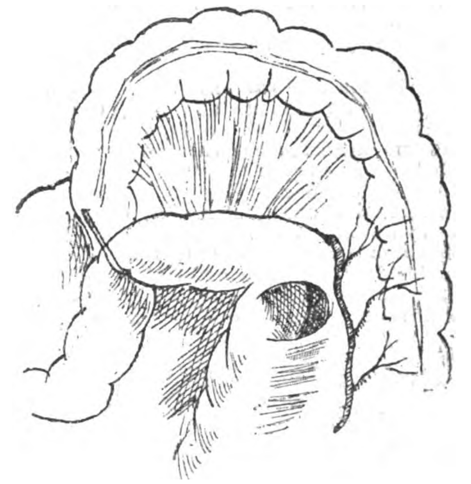

Fig. 1.—The superior and inferior duodenal folds and fossæ.

Genesis of the Superior and Inferior Duodenal Folds.—It is to Treitz (1857) that we are indebted for the first explanation given of the formation of the folds. He considered that they were traction folds, due to the dragging of the intestine in the displacement of the cæcum and ascending colon to the right. Waldeyer believed that they were vascular folds, raised up by the inferior mesenteric vein. According to Treves, the inferior duodenal fold represents the remains of the mesoduodenum, and is comparable to the duodenal fold of the hyæna. None of these views are acceptable. As shown long ago by Toldt, the folds are fusion folds. They are caused by the process of "physiological adhesions" between the original left, afterwards anterior, surface of the ascending portion of the duodenum and the right or anterior surface of the descending mesocolon, and date their origin from the time when these two peritoneal surfaces are in close apposition.

3. The *posterior duodenal fossa* (recessus duodeno-jejunalis posterior of Brösike. The fossa of Grüber (Fig. 2 x). This is a small fossa lying immediately behind the upper portion of the ascending limb of the duodenum. Its orifice is directed

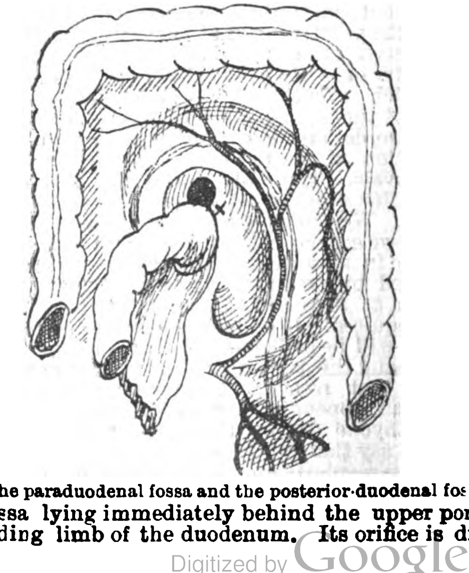

Fig. 2.—The paraduodenal fossa and the posterior duodenal fossa (x).

upwards and to the left, and on its right side is the plica suspensoria, a fold raised up by the muscle of Treitz. It was described as an "accessory sac" by Grüber.

4. *The Duodeno-jejunal Fossa* (recessus duodeno-jejunalis superior) Fig. 3.—On dragging the transverse colon upwards and the jejunum downwards, and to the right there can be seen at the root of the transverse meso-colon, a fossa which results from the plunging of the duodeno-jejunal flexure into the root of the transverse meso-colon. This fossa is the duodeno-jejunal; it exists in from 15 per cent. to 20 per cent. of the bodies examined. Its lateral boundaries are two folds, the duodeno-mesocolic, which are in reality the continuations backwards of the two layers of the mesentery. The fossa is bounded above by the pancreas, to the right by the aorta, to the left by the kidney. In the floor lies the left renal vein. The duodeno-jejunal flexure is a hernial content of the sac.

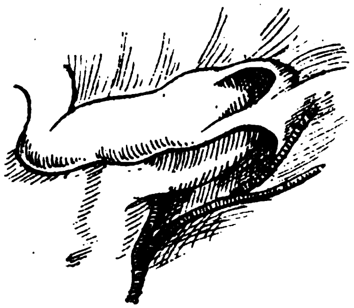

Fig. 3.—The duodeno-jejunal fossa.

5. *The Intermesocolic Fossa* (recessus intermesocolicus transversus) Fig. 4.—Probably a modification of the last fossa. It runs horizontally in the root of the transverse mesocolon. In all cases there is a marked deviation of the duodeno-jejunal flexure to the left.

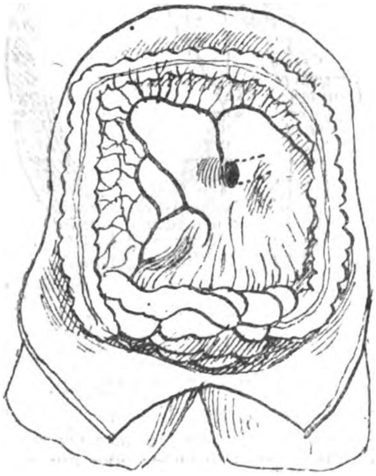

Fig. 4.—The intermesocolic fossa.

6. *The Infraduodenal Fossa* (fossette rétroduodénale of Jonnesco) Fig. 5.—The orifice of this fossa looks downwards; its apex reaches the duodeno-jejunal angle, the muscle of Treitz, and the pancreas. It is bounded in front by the posterior aspects of the horizontal and ascending portions of the duodenum, behind by the aorta, and laterally by two folds, the duodeno-parietal.

7. *The Paraduodenal Fossa* (recessus venosus, fossa of Landzert) Fig. 2.—The complications of this fossa are frequent. In its typical form it may be thus described:—It is placed to the left and some distance from the ascending limb of the duodenum. The fossa is caused by the raising up of a fold the plica venosa, by the inferior mesenteric vein, a fold which may be not inaptly described as a "mesentery" for that vein. Behind, the sac is bounded by the parietal peritoneum covering the psoas, the renal vessels and ureter, and a portion of the left kidney. Below it is limited by the mesenterico-mesocolic fold. The orifice of the sac is wide, and looks downwards and to the right. The plica venosa consists of a vertical and a horizontal portion, the vertical being to the left and below the fossa, the horizontal bounding the fossa above.

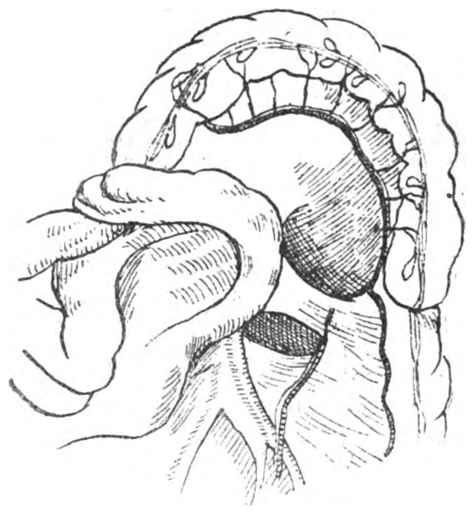

Fig. 5.—The infraduodenal fossa.

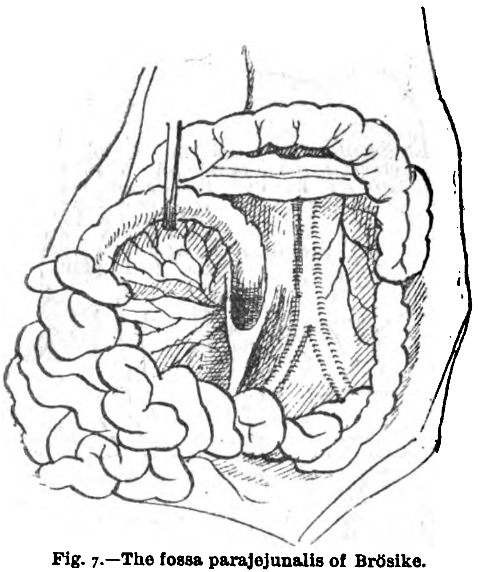

Fig. 7.—The fossa parajejunalis of Brösike.

The inferior duodenal fossa may be present with the paraduodenal. In that case there is always an amalgamation of the determining folds. Such a fossa was described by Treitz, and was considered by him as the normal condition.

8 and 9. *The Mesenterico-Parietal Fossa* (Fig. 6) and *the Fossa Parajejunalis* (Fig. 7).—These may conveniently be studied together, for they are practically the same fossa under different conditions. The fossa is situate in the first part of the meso-jejunum, immediately behind the superior mesenteric artery and immediately below the duodenum. Waldeyer, who is the only observer who has noticed a fossa in this

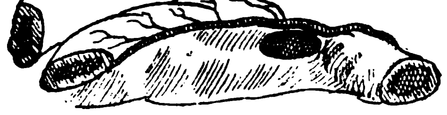

Fig. 6.—The mesenterico-parietal fossa: fossa of Waldeyer.

position with the intestines normal, has described it as existing only in the fœtus. I have, however, seen two well-marked examples in the adult. Brösike, who describes a similar, or more probably the same, fossa, asserts that it can only be found when the first portion of the jejunum is adherent to the posterior abdominal wall. As the fossa in any case lies immediately behind the first portion of the superior mesenteric artery, the jejunal adhesion is probably merely an episode, and in no causal relationship with the fossa. The peritoneum of the left leaf of the mesentery lines the pouch, whose opening is to the left and fundus to the right. A forcible enlargement of the fossa results in the lifting up of the posterior parietal peritoneum in the right half of the abdomen.

Duodenal Hernia.

Duodenal hernia is of two kinds. In the first the hernial sac is situated on the left side of the abdomen; in the second, to the right. In both cases there may be also an upward and downward increase, but the essential difference between the two forms lies in the varying direction of their lateral deviation. In the later stages of each the sac may practically fill the abdominal cavity. I propose to apply the terms "left duodenal hernia" and "right duodenal hernia" to the two varieties, to emphasise the fact that there is an intrinsic difference not only in the mode of growth but also, and chiefly, in the points of origin of the two forms.

Left Duodenal Hernia.

The commoner variety; 57 cases are recorded. A perfectly typical case, for which I am indebted to Dr. T. Wardrop Griffith, is here depicted. (Fig. 8) Without discussing the matter closely it may be affirmed that only one of the fossæ above described is capable of developing into the sac of a hernia—that one is the paraduodenal fossa, or fossa of Landzert. In all the cases recorded it has been found that in the anterior margin of the orifice of the sac lies the inferior mesenteric vein. With it, for a shorter or longer distance, there runs the ascending branch of the left colic artery. The anterior margin of the sac is formed, in fact, by the plica venosa. The plica venosa normally bounds the fossa of Landzert, and it is in that fossa alone that a hernia can develop. A left duodenal hernia is characterised by three points:

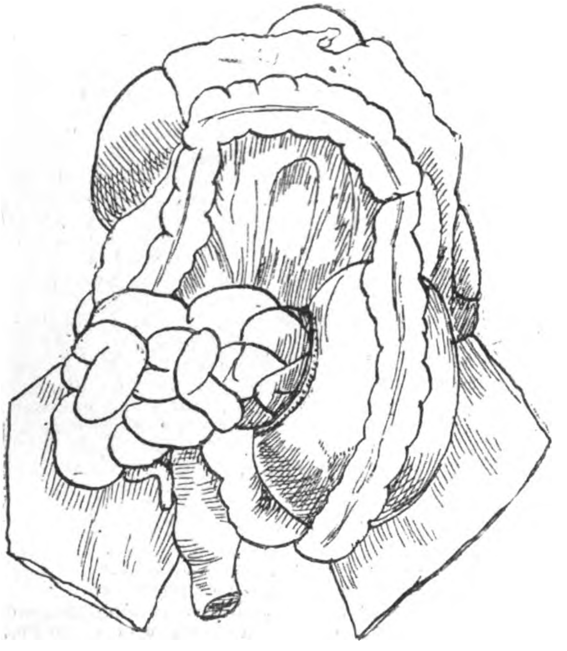

Fig. 8.—Left duodenal hernia.

1. The presence of the inferior mesenteric vein in the neck of the sac.
2. The hernia spreads either outwards towards the descending mesocolon, or upwards towards the transverse mesocolon, or both.
3. The hernial sac consists of a single layer of peritoneum. Behind the sac lies in contact with the posterior abdominal wall, and in front of it there is the posterior parietal peritoneum.

The orifice of the sac is situated at the back of the hernia in close approximation to the lumbar vertebræ. In a large hernia it is necessary, in order to expose the neck of the sac, to drag the whole tumour well over to the left side. The orifice is then seen close down to the third lumbar vertebra. The average size of the opening is 6 cm. long and 4 cm. broad. The size of the hernia varies enormously. The smallest is recorded by Brösike. It occurred in a child 14 days old, and the length of intestine in the sac was between 2 and 3 cm. In several cases, including the first recorded by Neubauer, the whole of the jejunum and ileum lay in the sac. As the hernia increases in size it reaches the descending colon on the outer side.

In some cases the colon is pushed backwards and covered by the hernia; in other cases the hernia passes behind the colon, which then lies in the anterior wall of the sac, the hernial tumour appearing therefore on the outer side of the colon. The difference in the behaviour of the colon I believe to be due to the condition of its peritoneal surroundings. When no descending mesocolon is present the colon is pushed backwards by the hernial swelling; when a descending mesocolon is present it is used up, so to speak, as a covering for the sac, and the hernia, passing behind the colon, comes to lie on its outer side.

Right Duodenal Hernia.

This is the rare variety. Only 13 cases, exclusive of the specimen shown, are recorded. This specimen (Fig. 9) for which I am indebted to Dr. T. Wardrop Griffith, has been preserved for some years in the *post-mortem* room of the Leeds Infirmary. The notes of the case have not been traced, but Dr. Griffith's recollection is that the death of the patient was unconnected with the hernia.

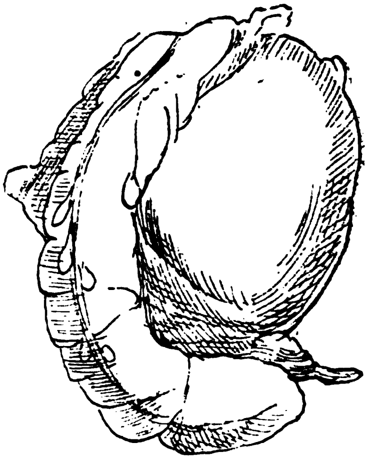

Fig. 9.—Right duodenal hernia.

The point of origin of this hernia has never been satisfactorily explained. Jonnesco gives an unintelligible description of the process by which a left duodenal hernia is supposed to turn over to the right. Brösike believes that in all specimens that are recorded there has been a jejunal adhesion to the posterior abdominal wall.

The fossa of Waldeyer (mesenterico-parietal) has entirely escaped observation by other authors. I believe it to be in this fossa that a right duodenal hernia develops.

On examining the orifices of the case recorded by Dr. Barrs, and the specimen placed at my disposal by Dr. Griffith, this opinion seems beyond disproof. The drawing of Dr. Barrs's case (Fig. 10), shows the orifice of the sac in precisely the spot occupied by the fossa of Waldeyer. Brösike figures a case observed by himself in which the jejunum was adherent posteriorly. In order to clear this point as to jejunal adhesion up, I have carefully examined the reports of all the cases recorded. In 7 of them we may take it that this adhesion was present. In the remaining 7 it was certainly absent. We may, therefore, describe two forms of right duodenal hernia, the former as hernia mesenterico-parietalis parajejunalis, and the latter as hernia mesenterico-parietalis paraduodenalis. In both varieties the anterior margin of the sac contains the superior mesenteric artery. It is interesting to note that in two recorded cases, Zwaardemaker's and Neumann's, there was a twisting of the bowel at the orifice of the sac, amounting, it is said, to volvulus.

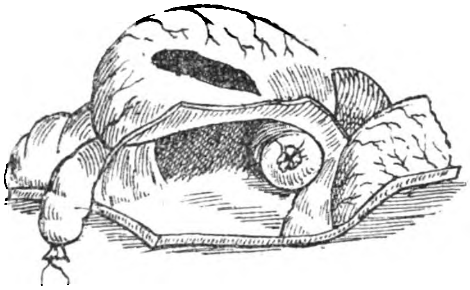

Fig. 10.—Orifice of the sac of a right duodenal hernia.

DIAGNOSIS.

Duodenal hernia, unless strangulated, gives rise to practically no symptoms. In many cases the hernia has been found accidentally on *post-mortem* examination. When strangulation occurs, in addition to the symptoms of acute intestinal obstruction a characteristic appearance of the abdomen has been noted. (Fig. 11.) There is a tumour in the central part of the abdomen and around it a flattened area. The tumour has the following attributes.

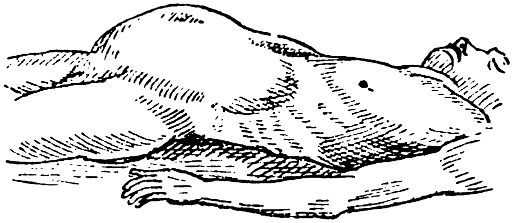

Fig. 11.—Aspect of abdomen of Dr. Barrs's case of right duodenal hernia.

1. It is limited to a definite region of the abdomen. In left duodenal hernia it lies at first to the left and upper, in right duodenal to the left and lower parts of the abdomen, but in each case spreads eventually over almost the whole abdominal cavity. Around the tumour is an area of depression corresponding to the position of the colon. In size the tumour may vary. It has been described as being of the size "of a child's head." In Dr. Barrs's case it was "equal to a nine months pregnancy." It is slightly movable, but fixed during respiration.

2. The tumour is marked out distinctly by palpation. On percussion it is always resonant. The degree of resonance varies in different cases, and in different parts of the same tumour. But the striking feature is that the tumour is a palpable, definite, resonant mass. In the centre of the tumour or over its whole mass may be seen coils of intestine. The tumour may bear a very obvious relation to the clinical condition of the patient, becoming more tense and prominent and very much more tender when the symptoms undergo exacerbation. As the symptoms decline the tumour becomes less aggressive.

3. On auscultation distinct gurgling sounds may be heard anywhere in the tumour.

It is important to remember that, owing to the position of the inferior mesenteric vein in the neck of a left duodenal sac the radicles of this vein may become enlarged, as in the case of the hæmorrhoidal veins; or venous trunks on the anterior abdominal wall may be so increased in size as to form a striking feature of the case.

THE medical practitioners of Yukon have, it is announced, organised a Yukon College of Physicians and Surgeons to examine all practitioners seeking to settle at Klondyke.

THE MILROY LECTURES
ON THE
EARTH IN RELATION TO THE PRESERVATION AND DESTRUCTION OF CONTAGIA.

Delivered at the Royal College of Physicians of London

BY G. V. POORE, M.D., F.R.C.P.LOND.,
Professor of Medical Jurisprudence and Clinical Medicine, University College; Physician to University College Hospital.

LECTURE II.[1]

ENTERIC FEVER.

MR. PRESIDENT AND GENTLEMEN,—Enteric fever has of late years much occupied the attention of epidemiologists and bacteriologists, and our knowledge of its definite relationship to filth, milk, and water has undergone considerable increase. The laboratory experiments connected with enteric fever are of great interest and value, but it would be, to say the least, hazardous to build upon them any measures intended for practical sanitation. It must never be forgotten that the typhoid bacillus does not fulfil one of Koch's postulates. The disease produced by the inoculation of guinea-pigs with pure cultivation of typhoid bacillus has but a remote resemblance to the disease which we clinically know as enteric fever, a disease which seems limited to the human species. Sidney Martin[2] finds that hitherto "none of the ordinary cultures of the typhoid bacillus obtainable in the laboratories will kill an animal, but that it may be rendered virulent by inoculation and transference through a succession of peritoneal cavities, and also by injecting simultaneously the products of other micro-organisms, such as streptococcus or bacillus coli communis. It is noteworthy that the bacillus coli communis and Gaertner's bacillus, when subjected to similar manipulations, are as toxic to rabbits as is the typhoid bacillus. It must be remembered that "pure cultivations" of the bacillus typhosus cannot be said to exist in Nature. We recognise, and it may be taken as proven, that the main cause of the endemicity and epidemicity of enterica in this country is to be found in the fæces of the patient, and yet Martin tells us that while the bacillus is invariably found in the spleen and mesenteric glands and in intestinal lesions, "it is found in some cases in the motions of typhoid fever and also in the urine."

Dr. Carver, working under Delépine at Manchester, found the typhoid bacillus twice in twenty samples of typhoid fæces and once in sixteen samples of typhoid urine.[3] Martin, working with sterilised soils, has shown that in soils which are more or less "polluted" with organic matter, the bacillus typhosus will continue to live and spread at ordinary temperatures, but that in virgin soils the pure cultivations of the bacillus die out from some unexplained cause. Martin gives one experiment[4] to show that in unsterilised soil containing much organic matter the bacillus may continue to live, but as yet there has been no evidence of spreading.* Robertson and Maitland Gibson[5] collected thirty samples of soil from areas which they considered likely to be infected. "In not one single instance was bacillus typhosus found."

Laboratory experiments tend to show that vegetation (grass) prevents the growth of the organism, which may explain "why typhoid fever is so much more prevalent in towns than in rural districts." Attempts to prove the aërial conveyance of the organism from liquid filth have failed.

Let us now turn from these experiments to the practical experiences of sanitarians. It may be premised that Martin's experiments show that the bacillus typhosus will grow in any soil rich in organic matter, and that, although aërobic, it can be cultivated as an anaërobe, even in an atmosphere of carbonic acid,[6] and that it is destroyed by sandy or peaty "virgin" soils. Robertson and Gibson cultivated the bacillus on a soil in which clay predominated. Sir Charles Cameron is of opinion that it flourishes in gravel.

Dr. Scurfield of Sunderland has said that "the greater part of the county of Durham in which typhoid fever had been prevalent during the last few years was covered with stiff boulder clay, and in the urban district of Sunderland typhoid fever had been just as prevalent in the boulder clay as in the houses built on sand or gravel." Pettenkofer is mainly answerable for the theory that enteric fever is due to a soil organism which grows with maximum vigour when the level of the ground water falls.

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* The persistence of the bacillus typhosus appears to depend on feeding it with fluid nourishment. A sewer leaking into the soil would do this or liquid filth in a privy.

The subsoil water in Munich is derived from the mountains, and when these are covered with snow the subsoil water falls. It is a most interesting fact that Pettenkofer's Munich typhoid fever was a disease of winter.

The average English sanitarian, reading an account of Munich with its soak-away cesspools and foul drinking water, would not need any new theories to account for the prevalence of typhoid fever. If we accept Pettenkofer's theory that the fever was due to organisms in the subsoil, it is interesting to observe that the Munich fever, unlike typhoid fever in other places, reached its maximum in February, and was most rife in the coldest weather, when the surface of the ground must have been often frozen. During the winter months, when the big houses were closed and the stoves were lighted, the interior of the houses must have been filled with cesspool air. An organism permeating the soil might be expected to die out gradually. The sudden fall of the death-rate from 72 in 1880 to 18 in 1881 seems to imply that the organisms suddenly died over the whole area of the city. Munich is a city in which the general sanitary condition has undergone gradual amelioration. Sewers on modern lines were begun in 1878, and 800 private slaughterhouses were destroyed in the same year. There is now a highland water supply, and typhoid fever has gone. But it is needless to say that the subsoil water rises and falls precisely as it did half a century ago. The connection of typhoid fever in Munich with organisms growing in the soil is to my mind not proven.

Enteric fever has long been regarded as a filth disease, and there is abundant evidence that filthy surroundings, such as water-logged privies, soil sodden with the leakage of sewers, the air of cesspools and traps, proximity of waterclosets to the kitchen, in some way or another predispose to it. While we agree as to the fact we may differ as to the explanation. Some would assert that the bacillus typhosus is actually growing and spreading in the filth, and, indeed, that is possible, but direct evidence of it is wanting. Some would even say that the soil being inoculated the specific organism may continue to grow and spread in it far away from the point of inoculation, and so (by growth, not irruption) may poison the local water at a distance. Of this there is positively no evidence whatever. If for the sake of argument we allow that the bacillus typhosus may grow in the soil we have to ask how it emerges from the soil to do us harm? We are here confronted with contradictions. Robertson and Gibson showed that the bacillus disappeared in the winter to reappear in the summer, while at Munich the increase of enteric was a phenomenon of mid-winter. In Buda-Pesth it is associated with a rising ground-water, and at Munich with the opposite condition. In this country it is a disease of autumn and the period of floods, while others assert that it may be conveyed by dust, which ought to produce a prevalence in March. The opinions held by sanitarians and bacteriologists on this question differ widely, but there will be a consensus of opinion that a water-logged soil rich in organic matter is the one in which the bacillus typhosus is most likely to flourish. If this should be true the official position that in sewage treatment filtration through earth is a *sine quâ non* becomes untenable.

Loesener, in a paper[7] on the Viability of Pathogenic Bacteria in Interred Corpses, states that he injected into the vessels and cavities of dead pigs a great quantity of pathogenic bacteria, so that their number should exceed that of the saprophytes. In the first experiments the animals were not interred, and under these conditions the viability of the bacilli of typhoid fever and cholera did not exceed four or five days. When the animals were buried in a porous soil the pathogenic bacteria manifested a maximum viability as follows: Typhoid fever, 96 days, cholera 28 days, tubercle 95 days, bacillus pyocyaneus 33 days, pneumobacillus of Friedlaender 28 days, micrococcus tetragenus 28 days, and tetanus 361 days. The bacillus anthracis preserved its complete virulence during the whole year of the experiment, and the bacillus of *rouget du porc* and septicæmia of mice 234 days. As for the typhoid bacillus, it was possible to isolate it from the buried corpses only once. In only two cases was there evidence of any escape of the disease germs from the body.

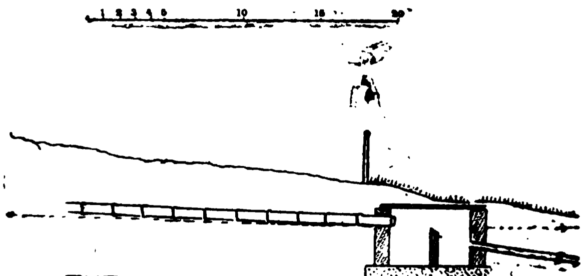
Loesener's conclusion is that cemeteries are not harmful, provided the graves be surrounded by a layer of earth sufficient to filter the liquids traversing them.[8]

In the fifty-ninth annual report of the Registrar-General (1896) attention is directed to the special prevalence of enteric fever in a group of districts comprising nearly the whole of the county of Durham, together with the adjacent parts of Northumberland and Yorkshire. In the six years 1890-95 the mortality from enteric fever in these districts averaged 343 per 1,000,000 persons living, as against 173 for the whole of England and Wales. This seems to point to the fact that enteric fever is a disease of overcrowded industrial centres.

The epidemic of enteric fever in Maidstone in 1897 is of great importance in relation to the influence of the earth on contagion, and the report to the Local Government Board by Mr. Davy, Dr. T. Thomson, and Mr. Willcocks has put us in possession of most of the essential facts.

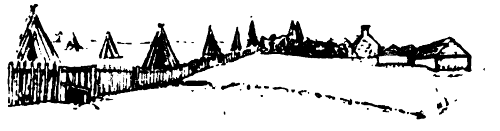
> It was conclusively shown that the outbreak was due to the pollution of a spring or springs belong to the Farleigh water system. Of persons drinking this water nearly 8 per cent. were attacked, while of those drinking water belonging to other systems of supply less than 1 per cent. were attacked. The Farleigh springs, which are 15 or 16 in number, crop out on both banks of the Medway (mainly on the left bank) where the overlying and permeable green sand (locally known as "ragstone") rests upon the impermeable clay beneath. The water of these springs is for the most part pumped to the Barming reservoir, whence it is distributed mainly to the higher parts of the town. The Farleigh springs yield over 3,000,000 gallons a week, and their waters were all mixed in one reservoir, holding 500,000 gallons, before distribution. That this reservoir and the pipes connected with it became polluted with enteric poison was beyond doubt, but it was not quite so clear which of the contributing springs was at fault. When, however, the springs were examined on September 19th (between a fortnight and three weeks after the pollution which caused the outbreak had commenced) one, and one only, was found to be dirty—namely, the spring known as "Tutsham-in-Field." In order to condemn this spring, which yielded only 35,000 gallons per week, both chemical and bacteriological analyses were wholly superfluous, and accordingly it was cut off from the supply on the following morning, September 20th. This spring was reported as still dirty a month later, and when I saw it on November 5th it was still turbid and manifestly unfit for drinking purposes. Not only did chemical analysis indicate pollution, but great variability of composition even on the same day. It is noteworthy and of very great importance that diligent search was made for the bacillus typhosus by six eminent bacteriologists engaged but without success.

The lecturer at this point explained the differences in the physical conformation of the springs of the Farleigh group. That of Tutsham-in-Field, which alone showed evidence of animal contamination, is supplied by the under drainage of a hop garden. Its natural flow, as Fig. 1 shows, is aided by some 20 feet of earthenware pipes with open joints, lying on the clay 2 feet from the surface near the catchpit and 4 feet at the distant end. Above the channel where it is 2 feet below the surface is a fence made of stakes driven into the ground which must undoubtedly have acted as conductors directly down to the water pipe. Near the fence were deposits of fæces. The line of the water pipe where it is near the catchpit corresponds very closely with the bed of the



TUTSHAM IN FIELD

Fig. 1.



TUTSHAM IN FIELD

Fig. 2.

natural surface drainage, and this spot is only a few yards from a path leading to a stile on the fence (see Fig. 2). In the case of two springs yielding good water, Tutsham-in-Orchard (Fig. 3) and Ewell (Fig. 4), the water pipes, open-jointed indeed as in the former case, are at no point nearer the surface than 5 feet and feet, respectively, and the surface consists in each case of turf.

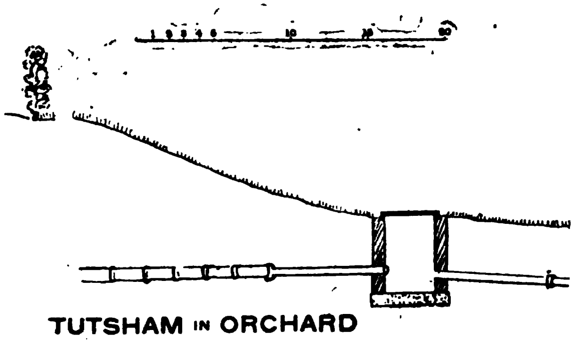
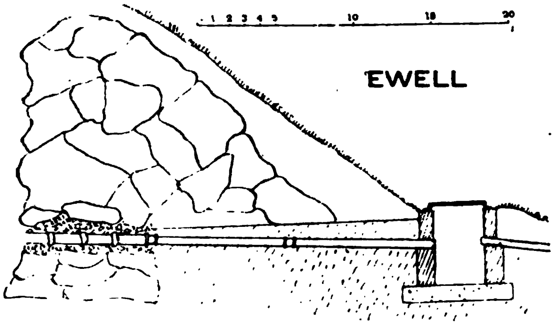


Fig. 3.



Fi 4.

The other epidemiological facts of this outbreak were shown by the lecturer to be quite compatible with the theory that the dirty water supplied from Tutsham-in-Field was the main cause of the outbreak. He then continued as follows: The inspectors in their report fix October 18th as the day when the influence of the Farleigh water ceased to be felt in Maidstone, and they say (p. 32): "Nearly all the cases notified after October 18th (some 280 in number) are to be regarded as having had a cause other than the consumption of Farleigh water." This opinion seems to imply that in the estimation of the inspectors the disinfection of the Farleigh water system, which began on October 16th and continued until November 4th was superfluous and useless. Speaking of the 280 cases, they say: "By Mr. M. A. Adams they were referred to direct infection from previous cases, and to insanitary conditions of waterclosets, drains, and sewers. This explanation appears to us to be the probable one if the insanitary conditions referred to be taken in the wide sense of including the fouling of the soil by leakage from these defective drains and sewers. Recent researches into the life-history of the bacillus of typhoid fever go to show that this organism finds in a soil contaminated with foul matters from leaky sewers, drains, and cesspools—conditions especially favourable to its vitality and multiplication. That the soil on which Maidstone stands is thus contaminated was set beyond doubt by the evidence put before us. To the existence of these conditions is mainly, we consider, to be attributed the remarkable persistence of fever in Maidstone after the primary cause of the outbreak had been removed by cutting off the Farleigh water supply."

Do the facts of the case really establish the conclusion which the inspectors say is "set beyond doubt?" I do not find a single word in the report or a single experiment to prove that the bacillus typhosus was growing in the soil of Maidstone. The epidemic is remarkable, not only for its severity, but from the fact that six gentlemen, all eminent for their skill in bacteriology, failed to discover a single typhoid bacillus. It may be, as the inspectors hint was the case, that the bacillus typhosus was permeating the soil of Maidstone in November, December, and January, very much as a blue mould permeates a cheese, but no examination of the soil is recorded in the report. There are facts, however, which make strongly against any such contention. These were the total escape of the barracks and prison.

The report states: "The barracks and the Maidstone prison are both within the borough and both are connected with the town sewers." "The water supplied to the barracks is that of the Boarley system of the water company's supply." "At the prison the water used on week days is from a well 34 feet deep sunk in the Hythe beds of the lower greensand." During the five months—August to December—there were probably 800 persons who drank water from the 34-feet well sunk in the "contaminated" soil of Maidstone. Reference to the map (Fig. 5) will show that the prison is closely hemmed in on the north and east by fever stricken houses, yet neither rise nor fall of subsoil water brought typhoid fever or diarrhœa to the prison.

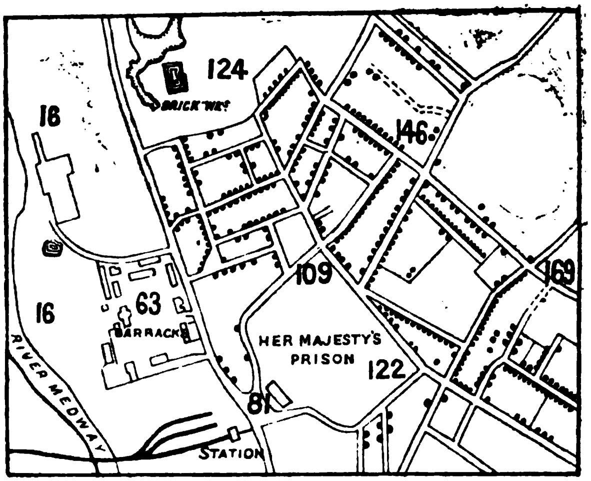


Fig. 5.

The investigations connected with the Maidstone epidemic are of great interest as pointing to the wonderful protection which the humus affords to the underlying water against pollution from above. The whole of the Farleigh springs were of the same character, the catch-pits of many of them were liable to leakage in time of flood, and the gathering ground of most of them was highly cultivated and manured land. And yet none of them—always excepting Tutsham-in-Field—afforded evidence of serious bacterial impurities. It may be added that in the third quarter of 1898 there was one death from enteric fever in Maidstone and another death from the same cause in the fourth quarter, so that the "contaminated" soil of Maidstone was not able to contaminate the inhabitants during the drought of July, August, and September or the rains of October, November, and December of last year.

IMMUNITY.

Bacteriologists have abundantly proved that the germs of disease are ubiquitous. They are found in earth, air, water; in the dust and on the walls of our dwellings, in clothing, in meat, milk, bread, and even occasionally, as Andrewes has shown, in hot baked rice-pudding. The fact that many of us manage to live to a respectable age, and to die from something that is non-infective, cannot but make us consider whether the immunity of the individual is not the fact which tends more than any other to the improvement of the public health. It is wholesome for us to remember that the greatest sanitary achievement of our time has been the practical disappearance of typhus fever. Of the *causa causans* of this disease we know nothing. Its absolute disappearance has not been produced by successful germ hunting. Its disappearance is probably due to the improved conditions under which the masses of the population live as regards food and cleanliness. Few of us doubt that if this country should become involved in war, and food should become dear and scarce in consequence, the relative immunity of the population would be lessened, and typhus fever would regain its sway. Whether or not we succumb to an infective disease probably depends in great measure on the dose of the poison we receive. When an endemic disease such as enteric fever become epidemic it is due to the sudden dissemination of a poison in relatively large or virulent doses. Even in the most severe epidemics it is rare for more than 10 per cent. of those who have run obvious risks of receiving the poison to be attacked. The questions of virulence and vulnerability are most important. It seems to be well established that the virulence of some of the pathogenic microbes varies immensely with the conditions of soil, temperature, air, sunlight, etc., under which they are grown, and it must be remembered that it is not always the pure cultivation which manifests most virulence. Many infective diseases assume a virulence in the tropics which is rarely met with in temperate countries. This appears to be true of tropical malaria, enteric fever, cholera, yellow fever, anthrax, and tetanus. In hot countries, where a temperature equal to the optimum for the growth of many pathogenic microbes is often continuously maintained for weeks in succession, the risks of contagion and the danger of uncleanliness must often have become apparent in a manner more convincing than among us. The repeated injunctions as to uncleanliness in the Mosaic law, and the rigid rules laid down as to the conditions which made a man unclean and necessitated his subsequent purification, must have been the outcome of experience. To eat with unwashed hands in a tropical country, and without knives and forks, would clearly be to run considerable risks. The regulations in force among the Hindus were even more stringent, and although some of the regulations may appear to us to be extravagant and nonsensical, it is impossible not to admit that most of them have for their aim the protection of the individual and his fellow man from the risks of infection.

There can be no doubt that the health and vigour of the individual is all-important in relation to infective disease. The enervating influence of a tropical climate upon Europeans is recognised as a potent predisposing cause of infective disease, and if to the effects of climate be added those of inordinate fatigue and insufficient food, the risks of infection of the organism are greatly increased. In the Nile expedition of 1889 those troops suffered most which had undergone most exposure and fatigue. Dr. Maclean, R.N. (in a letter to Sir J. Fayrer), alludes to the occurrence of enteric fever in the Island of Ascension, under circumstances of close observation, where no connection could be traced with defective sanitary arrangements, though it is probable that malarial influences did occur. "The water, partly collected from the roofs of buildings during rain and partly condensed, is stored in iron and cemented stone tanks, and removed from all possible sources of contamination." It is of course possible that in a case such as this the bacillus typhosus may be lying dormant in the body ready to assert itself when bodily enfeeblement reaches a certain pitch. It has been asserted—and the assertion received the support of the late Professor Kanthack—that the bacillus typhosus may be found in an abscess years after the attack, and the same thing holds good in a less degree with regard to the microbes of diphtheria and cholera.

Nothing is better established with regard to tubercle than its relation to overcrowding and unwholesome occupations. So "filth diseases" are especially fatal to those who live in the midst of filthy surroundings. It is not, I think, at all necessary to assume, although it is possibly the case, that specific organisms are growing in the filth. In the cramped dwelling of the artisan, where the privy is often barely 6 feet from the back door, the risks of fæcal befoulment of the food or person are very great, and when in such places large pails of fæces are left to putrefy for a week or more, it is not to be wondered at that the inhabitants should show an undue predisposition to the infection of enteric fever as has been pointed out by Boobbyer and others. But it must be remembered that wherever putrefaction is going on, and wherever anaërobic organisms are growing in a filth-sodden soil, unwholesome gases, such as CO_2, H_2S, CH_4, and H, are being given off, and it is impossible not to admit that the breathing of these gases from week end to week end in the crowded courts of a great city may so lower the vitality of the body as to increase its vulnerability to infection of all kinds. We must admit that to live in stinks and filth may greatly depress the health and increase the susceptibility to infection by microbes.

Professor Stewart Stockman[9] reports an investigation which he carried out on a septic organism which proved fatal to 380 fowls out of 400 on a poultry farm. He says: "The most important thing about this bacillus seems to me to be its fatal effect on tuberculosis, while it appears to be non-pathogenic, or nearly so, for healthy birds. It is also interesting to note that it killed a rabbit affected with the coccidium oviforme, although the healthy ones were little affected by it. This observation, I think, affords fresh evidence in favour of what is taught about certain other microbes, namely, that they are only pathogenic to the enfeebled organism."

Danger of Wounds.

It is an established fact that infective organisms may gain access to the body through the smallest wound, whether of the skin or the mucous membrane. The various forms of septicæmia as well as erysipelas and malignant œdema are due to this cause.

Tetanus, as we have seen, is always due to the inoculation of a wound, and it is a question whether anthrax of cattle is not more often caused by inoculation of a skin abrasion than has hitherto been suspected. Whether any of our common infective fevers are communicable by accidental inoculation is a moot point, and one which is certain to receive a full share of attention in the immediate future. It is certain that in the transmission of plague a broken skin bears a most important part, and it may be that other infections may be conveyed by the same channel. A distinguished pathologist is credited with having infected himself with enteric fever by a *post-mortem* wound. The infections brought about by flies, ticks, and mosquitos are at present attracting much attention, and it seems probable that the danger of certain "soils" and climates may be shown to be due in an increasing degree to the insects which find in the localities the various conditions necessary for their existence.

It may be that in some instances an abrasion of the skin made by an insect may merely serve as a point of entrance for infective organisms abounding in the surface of the soil or in the immediate surroundings of the individual, and having no necessary connection with the insect itself. It seems certain, however, that in the majority of instances which have been worked out a particular species of insect serves as an intermediary host for a specific organism that affects a specific animal. We hear much about flies conveying fever, which may be true; but we must always bear in mind what I feel inclined to call the excessive specialism of Nature. Insects which feed on dung and carrion are seldom attracted by the food of human beings, and I confess to being somewhat sceptical as to the accidental conveyance of infection by "flies" which heedlessly buzz first into the fæces and then into the milk. The pathologist of the future will clearly have to call in the help of the entomologist.

Practical Considerations.

The Maidstone epidemic has been very useful in directing attention to some of the common conditions which endanger water supplies. Pasteur and all subsequent bacteriologists have directed attention to the value of the earth as a filter, and it is a matter of common knowledge that a very shallow layer of compact earth will remove the bacteria and much of the organic matter from water percolating through it.

The greatest danger to shallow wells is to be found in subterranean collections of filthy fluids which leak through fissures in the earth with a gradually increasing hydraulic pressure. The lined well, 5 feet deep, which I have in the middle of my garden, has given water of exceptional purity for years, notwithstanding that the ground is cultivated with human excreta to within 6 or 7 feet of the well. Dr. Macmartin Cameron, medical officer of health for Kirkcudbright and Wigtown,[10] shares my opinion that a "surface well," properly constructed and in a selected situation, is a safe source for water. [The lecturer then referred to Dr. Cameron's observations on the limits of danger and safety in relation to shallow wells.]

Reverting to the conditions which obtained at Maidstone, I will mention a few considerations which, though obvious enough, are often neglected. During a drought such as occurred in June, July, and August, not only would the stiff hop land be liable to crack, but the earthworms would retire to the lowest point in search of moisture. At such times they go deeper and deeper into the soil and lie coiled up in oval knots at the bottom of their burrows. I have upon the table a piece of a worm-burrow removed from my garden in September last at a depth of more than two feet. It is more than a quarter of an inch in diameter, and would act as a drain from the surface to the deeper parts. This question of worm-burrows is one of great practical importance to sanitarians, because, especially after a drought, they may serve to conduct surface water to considerable depths without its really being influenced by that biological filter, the humus. Darwin[11] says that, although worms generally live near the surface, they may burrow to a considerable depth during long-continued dry weather and severe cold; the depth varies with the soil, and may extend to 66 inches.

Then, again, we must not forget the effect of harvest on the soil. Before harvest the amount of moisture retained upon the growing plant and absorbed by the still active root would prevent anything except the heaviest rain from penetrating, although even at such a time one must admit that even half a pint of water, if thrown on a suitable place, might travel *viâ* clay-crack and worm-burrow to a depth of five feet or more. When harvest begins, not only is the earth deprived of its green protecting mantle, but the upward drainage of the root action ceases, and with the falling temperature of autumn and the lessened evaporation the rain has an ever-increasing power of penetrating the soil. In a hop garden the first step in harvesting is the removal of the pole, and the hole thus left is capable of conducting rain water to a depth in the soil of two feet or more. If, therefore, there be open-jointed stoneware pipes in a hop garden at a depth of two or three feet from the surface, it is possible—nay, likely—that when the hop poles are removed a surface channel three or four inches in diameter may communicate with these pipes and a heavy rain may wash solid matters into them from the surface.

If a plant or tree dies, the roots, instead of helping the upward drainage of the soil and preventing surface water from reaching the springs may serve as a direct guiding channel from the surface to the spring. And if the spring be artificially maintained by under-draining it with open-jointed pipes (an operation which involves a considerable disturbance of the ground and its artificial remaking), this danger is considerably increased. Burrowing animals are necessarily a danger in this connection, and if rats or rabbits establish themselves anywhere near the outcrop of a spring they should be exterminated. Rats and rabbits sometimes burrow very deeply, but I have not been able to get any authentic statement as to the maximum depth in the soil to which they may penetrate. When rats crawl from the sewers (their favourite lurking place in towns) to our houses, it is possible that they may be at least as dangerous as sewer gas. Rats occasionally make their homes in dungheaps, especially if such heaps be made in outlying places and are long neglected. It is well known that they invade cornricks in spite of elaborate precautions. It is a safe plan, indeed, to regard the rat as a haunter of foul places and a lover of filth, and its presence as often due to delay in removing accumulation of filth.

The danger of having a catchpit flooded from the surface is one which can easily be guarded against by covering it with suitable structures. The ground above the outcrop of a spring ought to be carefully turfed to a point 6 or 7 feet above the level of the spring. If the water become turbid, or if a worm find an entrance to the catchpit, the use of such water should be discontinued, or it must be boiled and filtered until the cause of the turbidity be satisfactorily demonstrated. Such springs should always be carefully inspected during heavy rains, because it is at such times especially that shallow springs establish surface relations.

The question arises whether it is safe to allow the gathering ground of a spring to be cultivated? This is a national question of the very greatest importance.

Provided there be a fairly thick layer of earth above the spring, I am inclined to think that there is safety rather than danger in the cultivation of the overlying soil. Any spring which is covered by 7 feet of soil—that is, 6 inches more than the depth of the deepest recorded earthworm—might be considered safe from the risk of unchanged organic matter soaking into it from above. In the first place, the cultivation of the land ensures that it is visited more or less frequently by individuals more or less intelligent. A gathering ground for water which is remote from the haunts of man has dangers of its own. Rats or rabbits may burrow in it, and these, as well as other animals and birds, may provokingly die in the runnels which primarily collect the rain water; and I cannot understand how anybody who has ever walked over a moor can maintain the thesis that water running off a neglected waste is safer to drink than that which has percolated through well-cultivated land.

Last year I visited a spring which was, and had been, supplying water of excellent quality for public purposes. It rose in a little copse lying in a natural dell in a remote and seldom visited spot, and was enclosed and protected against surface washings which the configuration of the ground would certainly conduct towards it in times of flood. Some of the trees were dead, and their stumps were permeated with fungi, and one could not but regard it as possible that these rotten roots might serve as conducting channels from the surface to the water which was running beneath to the neighbouring towns. Further, there was evidence to show that this dell was visited by an occasional tramp, and had been made a playground by the children from the nearest group of cottages. It is clear that the non-cultivation of this particular spot was a source of danger rather than of safety to the purity of the spring.

Enteric fever is a disease especially liable to become epidemic in the autumn, when after the removal of the crops the parched earth is soaked, and when there are large accumulations of manurial matters waiting to be spread upon the land. In the summer the yield of springs is seldom increased, no matter how heavy may be the rains. The water which falls upon the earth is all absorbed by the roots of growing plants, and, to a large extent, mounts upwards in the plant to help metabolism and to quicken growth. With the ripening and harvesting of the crops root action ceases, water which falls upon the earth tends more and more to percolate, and when the early frosts have given its deathblow to the greenery of summer, then the springs begin to yield more water. The nitrification and final solution of organic matter in the soil goes forward mainly, if not entirely, in the upper layer, and it is doubtful if any appreciable amount of oxidation takes place in the parts which are beyond the reach of tillage. A certain proportion of the mineralised organic matter necessarily escapes absorption, and percolates with the water, and if there be much unused nitrates remaining in the soil after harvest, the amount which percolates to the springs may be considerable. If nitrates be placed upon the soil in the form of artificial manures, they are often dissolved and washed beyond the reach of plant roots by the first heavy shower. Not only nitrates, but soluble salts of ammonia, are placed on the ground in large quantities, and the presence of free ammonia in the drainage water of cultivated land that has been artificially manured need not be an indication of pollution in the proper sense. It must be very hazardous to draw just conclusions as to the wholesomeness or otherwise of water from the amount of nitrates in it.

REFERENCES.

[1] Lecture I was published in the BRITISH MEDICAL JOURNAL of February 25th. [2] *Croonian Lectures*, 1898. [3] *Lancet*, August 20th, 1898. [4] Local Government Board Report, 1897-98. [5] BRITISH MEDICAL JOURNAL, January 8th, 1898. [6] Local Government Board Report, 1867. [7] *Arbeiten aus dem Kaiserlichen Gesundheitsamte*, vol. xii, f, 11, p. 448. [8] *Annales d'Hygiène Publique et de Médecine Légale*, Troisième Série, t. xxxvii, January, 1897. [9] *Veterinarian*, September, 1898. [10] BRITISH MEDICAL JOURNAL, August 13th, 1898. [11] *Vegetable Mould and Earthworms*, p. 111 *et seq.*

REGULATION OF THE SALE OF POISONS IN NEW YORK.—A Bill has been introduced into the New York Legislature, requiring druggists, pharmacists, manufacturers, and wholesale or retail dealers who shall sell any proprietary medicine containing poison or poisons in any form, to put it in "such bottles or packages, of such size, shape, or condition as to give notice of its contents." Failure to do so is made a misdemeanour. The *Medical Record* says such an indefinite law as this would accomplish nothing, and it is safe to assume that the Bill will never pass the Legislature.

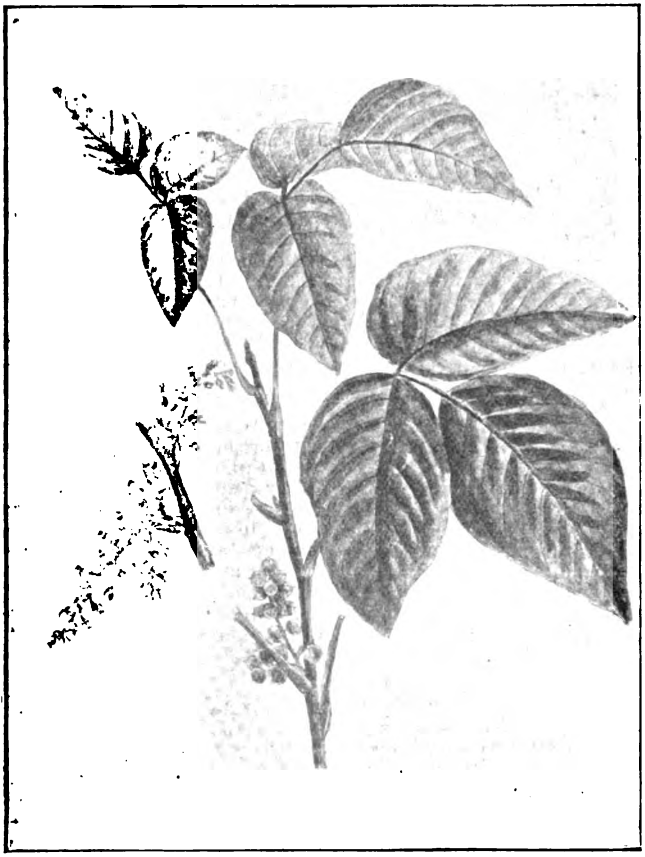
A CASE OF ACUTE DERMATITIS CAUSED BY HANDLING THE RHUS TOXICODENDRON.*

BY FRANK NICHOLSON, M.D.LOND.,
Physician to the Hull Royal Infirmary.

ON July 30th, 1898, a young lady, aged 19, living in Lincolnshire, was sent to me by Dr. Godfrey Goodman of Brigg, and Dr. Ffrench of Barnetby.

She had been quite well till the day before, when she began to suffer with prickling and smarting in both hands and the face, which quickly became red and swollen.

Both hands were covered on their backs with scattered red spots varying from the size of a pin's head to that of a split pea, and there were a few on the lower parts of the forearms. The face, however, was much more extensively affected; the redness was much more uniform, and there was considerable swelling, so that the eyes could scarcely be opened. Almost the whole of the face and forehead was invaded by the rash, which had a fairly sharp margin, and there were a few scattered islets beyond on the healthy skin. Both on the face and hands, but especially the latter, there was a tendency to the formation of vesicles. The rest of the body was entirely free from any eruption, the temperature was normal, the tongue clean, and there was no feeling of ill health beyond the local discomfort. At first sight the face presented the appearance of an ordinary case of erysipelas of moderate severity, and in fact in a previous attack it had been treated as such.



Rhus toxicodendron.

The past history was good, with the exception of six or seven similar attacks, all of which had occurred during the preceding five years, during which period she had lived in the same farmhouse with her parents, and the attacks had all occurred when she was at home, most of them in the month of August.

From the story and the appearance of the case, dermatitis venenata suggested itself. The number of attacks, their occurrence most frequently in August, when possibly some plant might be flowering or seeding, and so be specially noxious, and the fact that they never occurred before the tenancy of the present house, all seemed significant. I then gathered that the father had three times been affected, but only on the hands, and on one of these occasions it had followed pruning a certain creeper which grew over the porch. The groom-gardener had also had an irritable rash from an unknown cause on two or three occasions. I asked about the primula obconica, which is a recognised delinquent, but they had not had one for some years. Nothing else in the garden that they knew of was unusual or likely to be the offender, and, suspicion attaching to the creeper over the porch, I advised that it should be destroyed.

I wrote to Dr. Godfrey Goodman to this effect, and in reply was pleased to hear that at his next visit, to his satisfaction, but to the disgust of the groom who had undertaken the destruction of the creeper, that unfortunate menial was covered from head to foot with a scarlet, blotchy, irritable rash, and that a specimen forwarded to Kew had been identified as the rhus toxicodendron. The leaves are trifoliate, thin, shining when fresh, and dark green, and not unlike the clematis. The leaves, branches, and flowers contain a milky juice, which blackens on exposure, and which may be used as an indelible ink when applied to cotton or linen.

The plant cannot be common, I think, either in East Yorkshire or North Lincolnshire, as I do not remember having seen it growing, nor have I previously met with a similar case; but I understand from the Curator at Kew that in many parts of England it is fairly common in old shrubberies. The farmhouse in North Lincolnshire where this was growing had had a sea captain as a tenant some years ago, and it is not improbable that he had brought this plant home with him from abroad as a highly-prized treasure.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

A CASE OF URETHRAL STRICTURE IN WHICH DEATH OCCURRED FIFTEEN HOURS AFTER PASSING A CATHETER.

P.B., aged 57, a retired boatswain R.N., was first seen by me on December 26th, 1898. The history given was that about thirty years previously he contracted a stricture of the urethra, which had troubled him ever since. He had suffered twenty years later from perineal abscess, and had been in various naval hospitals for his complaint. Of late years he had regularly catheterised himself, usually passing a No. 8 gum elastic English catheter at intervals of a fortnight. Lately he had neglected this, and five weeks had elapsed since passing any instrument. On December 26th he was unable to pass even a No. 2 gum elastic catheter, and had made himself bleed rather freely.

I found him to be a rather plethoric-looking man, with a pulse of 75, temperature 98° F., and very nervous about himself. There was no retention of urine, which was clear and did not contain albumen. No attempt at catheterisation was made; rest in bed, a diet of milk and barley water, and an alkaline mixture with tincture of hyoscyamus, were ordered.

The next day a No. 4 silk web catheter was passed through the stricture, which was tortuous and in the membranous portion of the urethra. On the 29th No. 4, No. 5, and No. 6 gum elastic catheters were passed, the last named being gripped tightly.

On the 31st, just after midday, I made another attempt, beginning with a No. 5, but this would not enter the stricture; a No. 4 entered the stricture, but would not pass through it. A No. 3 with a stilette was then tried, but this also would not pass through; and as a little blood was in the eye of the catheter on withdrawal, I desisted from further attempts. Before leaving the room the patient complained of feeling cold, and said that he was sure "the shakes" were coming on. At 2 P.M., in response to an urgent summons,

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* Read at a meeting of the East Yorkshire and North Lincolnshire Branch of the British Medical Association.

I again visited him. He was looking very ill, he had a dusky colour, with noisy respiration, and with the skin bathed in perspiration. He complained of intense pain in the lower part of the back and right lumbar region. About 5 ounces of urine had been passed, which was clear, and contained a little unmixed blood, evidently from the urethra; the passage of this had caused intense burning pain in the urethra. The pulse was 130 per minute, small and feeble, and the temperature 98° F., while great thirst was complained of. Hot fomentations with turpentine were ordered to the back, and a mixture containing liquor ammoniæ acetatis and spiritus ætheris nitrosi every two hours was given by the mouth.

At 4 P.M. he was worse, livid in aspect, streaming with perspiration, still complaining of intense pain in the back. The bowels had acted freely, and he had vomited once. The pulse was about 170, very feeble. Tincture of digitalis, 5 minims, and tincture of nux vomica, 3 minims, were ordered every hour.

At 10 P.M. he was evidently moribund from cardiac failure; his pulse was almost imperceptible; he was barely conscious, and the skin still acting freely. Death took place at 3 A.M. on January 1st, 1899. No definite convulsions were noticed at any time. A *post-mortem* examination was not obtained.

The case appears to present none of the usual features of death from uræmia with suppression of urine, but rather to have resulted from a reflex cardiac failure.

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CYST OF POSTERIOR VAGINAL WALL.

M. K., aged 26, consulted me on May 1st, 1897, complaining of her "womb coming down." The swelling she complained of appeared about ten months previously, and was slowly increasing in size. When lying down she found it disappeared into the vagina, but in the erect position it protruded beyond the labia. It caused no pain, only discomfort, and a feeling of pressure, and some leucorrhœa.

On examination the swelling was soft and boggy, and as large as a hen's egg. Examination with a finger in rectum and another in vagina clearly showed tumour to be cystic, and growing between layers of rectovaginal septum.

On May 5th I removed the cyst. An attempt was first made to enucleate it, but this proved impossible, owing to the thinness of its walls and its intimate connection with the tissues forming the septum. An elliptical piece was therefore excised from its wall, evacuating about 1½ oz. of gelatinous fluid, and the cavity (which measured 3 inches) was scraped with a sharp spoon and swabbed with 1 in 10 carbolic lotion. The vagina was lightly packed with iodoform gauze.

Subsequent treatment consisted of a Condy douche night and morning, the use of iodoform and eucalyptus pessaries, and packing the vagina fairly firmly with iodoform gauze, so as to promote closure of the cavity. On May 25th a speculum examination showed no sign of any cavity, the wound being soundly healed. Throughout the temperature was normal.

At the time of this operation the patient was three months pregnant, and on November 6th after a very tedious and difficult labour I delivered her of a full time male child by forceps. The operation scar did not give way and she recovered without a bad symptom.

Whitehaven. G. W. H. TAWSE, M.B.

DECREASE OF UTERINE MYOMA AFTER EXCISION OF BREAST.

IN connection with Mr. Stanley Boyd's paper on Oöphorectomy in Cancer of the Breast, I might mention an interesting observation made under circumstances of a somewhat opposite character.

Miss M. H. had suffered for a number of years, before she came under my care, from a very large myomatous uterus which it had not been considered advisable to operate upon. As usual in these cases, she was greatly impeded and distressed by the size of the growth. In March, 1892, menstruation ceased, and the tumour began to show signs of decrease in bulk. This latter, however, was not marked until April, 1894, when, in consequence of scirrhus of the right mamma (the development of Paget's disease of the nipple) her breast was excised by Mr. C. B. Ball. She was then 59 years of age. Within a week there was a most noticeable change in the growth. The usual firm condition gave place to a softened tissue, which, with further considerable diminution in size, conduced greatly to the lady's comfort. Owing to her removal I have lost sight of her for some time. I may note, in passing, that a sister died of pulmonary cancer secondary to a mammary growth which had been removed.

Monkstown, co. Dublin. R. LYNN HEARD, M.B.

THE TREAMENT OF HÆMOPHILIA.

IN the BRITISH MEDICAL JOURNAL of February 11th, Mr. Davies, of Tredegar, has given the results of his treatment of a family of "bleeders" which appears to have been very successful.

There is a simple remedy which proved efficacious in three cases under my observation, and it would be interesting if those who have the opportunity would give it a further trial. It is the administration internally to an adult of 20 minims of dilute sulphuric acid in an ounce of water three times a day.

When I first went on as dresser at St. Thomas's Hospital in 1863 there was a case of wound over the kneecap of a "bleeder." The house-surgeon tried pressure, tincture of iron, nitrate of silver, etc., for two days, but without any beneficial result. Mr. (now Sir John) Simon ordered acid sulph. dil. ♏xx, aq. ℥j, three times a day, the result was that the bleeding soon ceased.

This made a great impression on me, and I was able to test the efficacy of the treatment when I was subsequently house-surgeon. During my tenure of office two brothers came in at different times with scalp wounds, and both bled. In their cases, after pressure had been tried, the acid had the desired effect.

I have never met with any other "bleeders," but have frequently administered the acid in repeated epistaxis; and, combined with 10-grain doses of sulphate of potash, for bleeding piles, with satisfactory results.

J. B. SIDDALL, M.D., C.M.Aberd., D.P.H.Cantab.
Northam.

A CARTRIDGE IN THE RIGHT BRONCHUS.

C. K., aged 7 years, was admitted into the Somerset Hospital, Cape Town, for slight dyspnœa and cough. Eight days before he had been throwing a pistol cartridge up into the air and catching it in his mouth, when he fell with a cry just as the cartridge got into his mouth. While at rest he was only slightly dyspnœic, and he could walk about with comfort, but he was said to have turned very blue once or twice after coughing.

On admission his pulse and temperature were normal, but his respirations were about 30 per minute. The right side of his chest moved less than the left, and there was deficient entry of air over the right chest below the fourth rib in front. There was no dulness or bronchial breathing. In the third and fourth right spaces was a loud rhonchus, which was traceable across the sternum into the right axilla. With the *x*-rays and screen a foreign body could be seen just to the right of the spine. The next morning there was dulness in front below the fourth rib, with complete absence of entry of air, and dulness below the sixth rib behind. The temperature was normal.

Having obtained leave to operate a low tracheotomy was done under chloroform, the trachea being opened freely. With a stout piece of silver wire with blunted point I was able to feel the cartridge distinctly in the right bronchus. Each manipulation caused the patient to cough, although under the anæsthetic. After several trials with nasal polypus forceps having a crocodile mouth, I succeeded in catching one edge of its open end and it was removed quite easily. He made a good recovery and was discharged well on August 23rd, the breath sounds and resonance being then normal.

The cartridge was an ordinary brass one ⅝ inch long, the circumference of the rim being 1 inch.

The greatest difficulty was caused by the coughing, which immediately followed the gentlest manipulation. The cartridge came out quite clean and was full of mucus, but had no blood on it.

Buluwayo. W. A. MOFFAT, F.R.C.S.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

TEWKESBURY HOSPITAL.

GANGRENE OF THE LUNG TREATED BY CREOSOTE VAPOUR.

(By W. Devereux, M.A., M.B.Cantab., Surgeon to the Hospital.)

C. T., aged 11, an ill-nourished, delicate-looking boy, was admitted to the hospital on May 27th, complaining of pain in the left side of three weeks' duration and shortness of breath.

On admission his temperature was 100.8°. There was slight cough, but no expectoration. The pain was situated over the left side of the chest, between the two axillary lines. Percussion revealed absolute dulness below the lower border of the sixth rib, extending forwards as far as the nipple line, and backward to the angle of the scapula. Over this area there was a total absence of breath sounds. Around it there was a zone about 2 inches in breadth over which moist *râles* could be heard, with slight dulness on percussion. Friction sounds were audible over the combined area.

During the fortnight after admission the patient's condition changed for the worse. The temperature assumed a hectic type, and there was profuse perspiration. The cough was troublesome, especially at night, and there was a slight viscid expectoration. The dyspnœa and pain increased, being worse at night. The area of dulness increased slightly.

An exploring needle was inserted over the dull area, but no fluid was found. The needle was then driven into the lung to a depth of 3 inches. Some creaking was felt on moving the end of the needle, and a few drops of blood came away.

The boy was put on a nutritious diet with egg flip, and had a mixture containing morphine and squill. On June 13th there was a sudden change in the quantity and character of the expectoration. It increased to half a pint in the twenty-four hours. It was watery and opaque, with a greenish tinge, slightly streaked with blood and lumpy. It did not coagulate on boiling. On microscopical examination an abundance of pus cells was found, but no lung tissue or tubercle bacilli. The smell, especially during an attack of coughing, was horribly fœtid. The bed was covered with a tent, and a steam kettle containing creosote was employed.

On June 14th the patient coughed up about a pint of similar sputum. Towards evening he seemed slightly better, and his temperature ran down during the night to normal. The pulse had improved considerably. On auscultation over the dull area, physical signs of a large cavity were found.

During the next five days he seemed slightly better, but the sweating continued and the temperature was irregular, and the sputum was still fœtid. It was therefore determined on June 20th to try the inhalation of coal-tar creosote vapour. A small room, connected with the hospital by a porch, was used, the fireplace and window being rendered as airtight as possible, and the creosote vaporised in a metal dish over a spirit lamp.

The patient was provided with plugs for the nose and watch glasses for the eyes. The vapour at first aggravated the coughing, and the patient brought up a large quantity of watery sputum, but after 10 minutes the cough diminished, and he felt much easier. At the end of 20 minutes the boy felt weaker, and was taken back to bed, when he again expectorated a large quantity of sputum.

During the next week the inhalations were continued, each lasting from 10 to 15 minutes. His general condition showed considerable improvement, the fœtor of the breath ceased, and the cavity in the left lung showed signs of diminishing. On June 28th, during the inhalation he brought up, after a severe fit of coughing, about 1 ounce of thick, yellowish-green sputum. He went out into the garden for the first time on that day.

By July 4th, he had gained 3½ lbs., his weight being 3 st. 12 lbs. On July 18th, his weight was 3 st. 13½ lbs., the cavity had disappeared (though there was still dulness), and the expectoration had nearly ceased.

On July 25th, the weight was 4 st. 2½ lbs., and on August 1st 4 st. 6½ lbs. The inhalation had been continued daily until July 30th except on June 23rd, when the temperature rose slightly.

The patient was discharged on August 3rd, the dulness having greatly diminished. He was seen again on his return from the convalescent home on August 17th, when he looked extremely well; his weight had gone up to 4 st. 9 lbs., and the physical signs in the lung had completely disappeared.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

T. Bryant, M.Ch., F.R.C.S., President, in the Chair.

Tuesday, February 28th, 1899.

The Treatment of Aneurysms by Extirpation.

Mr. W. J. Walsham read a paper entitled a Case of Extirpation of a Large Non-pulsating Aneurysm, involving the Common, Internal, and External Carotid Arteries of the Right Side of the Neck, with remarks on non-pulsation in aneurysms and the treatment of aneurysms by extirpation. The patient, a strong, healthy-looking man, 49 years of age, had noticed a small swelling for six years on the right side of his neck. It had grown slowly and without pain until a few months before he came under observation, since which time it had got rapidly larger. The swelling extended from the angle of the jaw nearly to the clavicle, and from near the middle line in front passed deeply beneath the sterno-mastoid muscle. It was roughly globular in shape, and generally hard in consistence, but soft and fluctuating in places. The skin was not adherent, and the swelling had no connection with the larynx or bones. There was neither pulsation nor *bruit*, and nothing escaped on puncture with an exploring syringe. It was thought that the swelling was glandular and probably malignant. An exploratory incision was made and the tumour discovered to be an aneurysm. No pulsation was detected at the operation. The common carotid was ligatured in two places below the sac, and divided between the ligatures; the sac was dissected up, collateral vessels entering it were secured as met with, and finally the internal carotid was ligatured above. The sac was then removed entire. The patient made a good recovery. The author stated that non-pulsation in an aneurysm, except when it had become consolidated, diffused, or inflamed, appeared to be rare, only a few cases having been found recorded in literature. The cause of non-pulsation in these was not very evident, but was attributed either to leaking of the sac, or to blocking of its mouth with clots. Nine cases of extirpation of carotid aneurysms were tabulated; all recovered. The wider question of the treatment of aneurysm by extirpation was next discussed, and a table of 33 cases of spontaneous aneurysms treated by extirpation was appended. The chief methods of extirpation employed were: (1) The old operation of opening the sac, turning out the clots, and securing the artery above and below; (2) the old operation *plus* the removal of the sac by dissection; and (3) the removal of the sac after the artery had first been tied above and below. The last method, slightly modified as in the author's case by dividing the proximal artery between two ligatures, dissecting up the sac, and finally tying the distal vessels, was submitted as the ideal one. The conditions most favourable for extirpation appeared to be: (1) Where there is insufficient room to apply a ligature to the artery on the proximal side, or where a proximal ligature is attended with great risk, as ligature of the innominate for subclavian aneurysms; (2) where a number of large vessels communicate with the sac; (3) where other measures have failed to cure the aneurysm; (4) where the aneurysm as in the popliteal artery, has become diffused, or rupture of the sac or gangrene of the limb is threatened; (5) where the setting free of emboli, as in carotid aneurysms, would be attended with risk of cerebral softening. From a review of the 32 cases, and from the experience gained in his own case, the author considered it to be shown that the operation of extirpation might be looked upon as a most successful method of treating an external aneurysm, and was perhaps the best that could be adopted in the conditions above mentioned. But for an ordinary popliteal aneurysm without complications enucleation could hardly be compared with such a simple, and, as a rule, satisfactory, procedure as ligature of the popliteal or even of the femoral at the apex of Scarpa's triangle.

Mr. R. J. **GODLEE** had had a case of a large, soft, popliteal aneurysm under his care, in which, after ligature, pulsation returned in the sac; he therefore excised it. But the operation was by no means easy and took a long time to perform; there were numerous branches coming off from the aneurysm, and it was very difficult to effect a separation between the aneurysm and the popliteal vein, in fact, the vein might have been injured. There was no gangrene of the foot, but there was more œdema of the leg than is ordinarily seen after ligature, and recovery was very slow. Hæmorrhage of an alarming character was not likely to be troublesome in excision of a popliteal aneurysm, inasmuch as it could be controlled by a tourniquet. He was not inclined to excise all popliteal aneurysms as a routine practice. The knee was an inconvenient situation for a scar. He pointed out that it was advisable, before excising an aneurysm, to determine the condition of the walls of the arteries in the neighbourhood of the aneurysm. One possible explanation of the absence of pulsation in an aneurysm was that the aneurysm exerted pressure on the trunk of the artery.

Mr. T. **HOLMES** had listened with the greatest pleasure to the paper, which reminded him of many difficult cases of diagnosis, for aneurysms did not always pulsate, while pulsating tumours were not always aneurysms. He had discussed the reasons why aneurysms sometimes did not pulsate in a paper in *St. George's Hospital Reports;* if there was not a free exchange of blood between the artery and the aneurysm, pulsation might be absent. A *bruit* might also be absent over an aneurysm; and this absence might be due to the mouth of the aneurysm being either too large or too small. He quoted two cases; in the first the patient had a tumour projecting on the back, but not pulsatile; the diagnosis lay between a malignant renal growth and an abdominal aneurysm. It was found to be due to a large false aneurysm communicating by a small orifice with the abdominal aorta; by rupturing it had produced death. The other case was under Sir Prescott Hewett, and was regarded as a psoas abscess; it was not interfered with surgically, but on the man's death it was found to be an aneurysm connected with the abdominal aorta that had also caused death by rupture. He thought cases of aneurysm that did not pulsate and could not be diagnosed were rare. The treatment in the author's case—that was, excision of the sac—was greatly superior to the older method of opening the sac, turning out the clots, and hunting for the arteries.

Mr. A. **PEARCE GOULD** related a case of a soldier, aged 28, who had a popliteal aneurysm on the right side, for which the femoral artery was ligatured at the apex of Scarpa's triangle. Six months later the patient came under his care with a popliteal aneurysm, the size of an orange, on the left side. This he excised, but the operation was not an easy one; it was found impossible to separate the popliteal vein from the aneurysm, and therefore he left that part of the sac, and did not completely excise the aneurysm. There was more interference with the circulation on the side where the femoral artery was ligatured at a distance from the aneurysm than on the side where the aneurysm was excised; for six months after the first operation the right leg felt numb, and no pulse could be detected in the tibial arteries, while pulsation returned in the tibial arteries on the left side three weeks after excision of the aneurysm. He asked the author of the paper why he preferred complete removal of the sac to removal of most of it. For his part he thought it unnecessary to spend a long time in dissecting off the adherent structures. He referred to a patient with a popliteal aneurysm who, though of active life, was liable to faint. On this account he judged it better to tie the femoral artery than to excise the aneurysm. Gangrene of the foot, necessitating amputation of the thigh, resulted, which might, he now thought, have been avoided had he excised the aneurysm instead.

Mr. A. A. **BOWLBY** had always considered that there was a time during the spontaneous cure of aneurysm at which pulsation disappeared. In aneurysms showing a tendency to undergo cure the artery between the aneurysm and the heart became narrowed, as the result probably of a free collateral circulation diverting the blood stream. The routine excision of aneurysm was bad surgery, as it exposed the patient to a considerable risk of hæmorrhage that might be profuse and difficult to control. Where an artery and vein were in close contact, the vein was almost certain to become closely incorporated with the aneurysm; this was markedly so in popliteal aneurysm. It was generally—and he believed, erroneously—assumed that the artery in the neighbourhood of the aneurysm was in a condition of disease. From an examination of the hospital museums in London he had found that in popliteal aneurysm the artery was healthier in the neighbourhood of the aneurysm than higher up in the thigh. He therefore considered that ligature was inadvisable at the apex of Scarpa's triangle, and that it could be performed close to the aneurysm. He believed generally that in cases of aneurysm the artery was in a better condition close to the sac than nearer to the heart, and that this proposition was especially true of popliteal aneurysms.

The **PRESIDENT** was convinced from his experience that any damage to the accompanying vein was fraught with serious consequences to the patient, and since there was some danger of this in incision, that operation was only advisable in exceptional instances. He referred to a man, aged 80 years, with heart disease, who was in Guy's Hospital under the care of the late Dr. Owen Rees. This patient had a popliteal aneurysm which burst; he accordingly ligatured the femoral artery in Hunter's canal and the popliteal artery, and tried, but unsuccessfully, to excise the aneurysm.

Mr. **WALSHAM**, in reply, pointed out that he did not recommend excision as a routine treatment for aneurysm; it was much better in simple cases of popliteal aneurysm to ligature the vessel. Formerly he ligatured the femoral, but recently he had tied the popliteal artery in cases of popliteal aneurysm. He was in favour of removing the whole of the aneurysm sac, because, as was shown by his collected cases, the wound then healed more readily, and also because if some of the wall of the aneurysm was left, vessels coming off from it might escape notice and ligature, and so give rise to secondary hæmorrhage.

CLINICAL SOCIETY OF LONDON.

JOHN LANGTON, F.R.C.S., President, in the Chair.

Friday, February 24th, 1899.

CLINICAL EVENING.

MUSCULAR ATROPHY RECOMMENCING LONG AFTER INFANTILE PARALYSIS.

DR. **PARKES WEBER** showed a boy, aged 17, who at 2 years of age had been affected apparently by a combination of infantile hemiplegia ("polioencephalitis" of Strümpell) of the right side and infantile paralysis (acute anterior poliomyelitis) of both lower extremities. Both lower limbs were considerably wasted (especially the right one), and the right half of the body was somewhat smaller than the left half. About five months ago the patient noticed a loss of power in the right hand and wasting of the muscles of the right thumb. It was feared that the case would turn out to be one of progressive muscular atrophy, like those described as commencing long after infantile paralysis. The thumb muscles had, however, during recent weeks somewhat recovered, so that it was now hoped the disease was not really of a progressive character in the present case. The patient had been treated by small doses of strychnine.

UNILATERAL HYPERTROPHY OF THE BREAST FROM PRESSURE.

Dr. **CAHILL** showed a woman, aged 27, with hypertrophy of the right breast due to pressure of a paralysed and contracted right arm. At the age of 9 she had right hemiplegia after diphtheria, and the right arm became spastic and contracted, being firmly flexed and adducted, so that the hand pressed on the thorax just above the mamma, and this breast had always been larger than the other. That this was due to the pressure was confirmed by the diminution which had taken place since the arm had been kept extended at night by a splint.

The **PRESIDENT** thought that the breast was not so much hypertrophied as displaced downwards by the arm.

PULMONARY FIBROSIS ASSOCIATED WITH TABES DORSALIS AND ARTHROPATHY.

Dr. **H. A. CALEY** showed a woman, aged about 40, suffering from these diseases. She first came to St. Mary's Hospital in October, 1896, with characteristic symptoms of tabes. As there was some cyanosis of her lips he examined her chest, and found signs of pulmonary fibrosis, most marked on the right side, a cavity at the right posterior apex, and bronchiectasis at the right base. She had no cough or other pulmonary symptoms. There was a history of her having attended a hospital for chest trouble at the age of 13, and Dr. Caley thought that the chest trouble dated from then. In 1897 she developed painless effusion in both knees of the type described by Charcot in tabes. Dr. Caley regarded the association of the pulmonary and nervous diseases as purely accidental.

RHEUMATOID ARTHRITIS WITH ENLARGED SPLEEN AND GLANDS IN A CHILD.

Mr. **BERTRAM HUNT** showed a boy, aged 6, with the history that while he was in hospital suffering from tonsillitis and broncho-pneumonia, his knees and elbows became painful and then swelled. The effusion was not great, and skiagraphs showed that the bones were normal. There had been irregular pyrexia, the temperature sometimes reaching 104° F., progressive anæmia, enlargement of the lymphatic glands in the axilla and groins, and considerable enlargement of the spleen. Bacteriological examination of the synovial fluid gave negative results. Mr. Hunt thought that the joint disease had been secondary to tonsillitis.

A PATIENT AFTER REMOVAL OF CEREBRAL TUMOUR.

Dr. **WASHBOURN** and Mr. **ARBUTHNOT LANE** showed a woman from whom Mr. Lane had removed a tumour growing from the pia mater over the arm area two years ago. The case was recorded in the Clinical Society's *Transactions*, vol. xxx, p. 154. Permanent paralysis of the right arm had followed the operation, but she was otherwise in good health, and there had been no recurrence of the fits from which she previously suffered.

FACTITIOUS URTICARIA.

Mr. **MOUAT BIGGS** exhibited a young man suffering from factitious urticaria, who was a healthy athlete, and had never suffered from urticaria from any of the usual causes. Remarkable urticarial wheals could be induced anywhere on his skin by drawing lines on it with any blunt instrument. A white wheal rose on a scarlet background, forming an elevation of quite an eighth of an inch. This reached its maximum in five minutes, and faded in the course of an hour. There was not the least itching or discomfort. Pressure alone brought them about. Some cases had been described in which similar wheals were produced by local cold such as that by ether spray; several of the cases had also paroxysmal hæmoglobinuria; but neither of these was the case with this patient.

MYOSITIS OSSIFICANS PROGRESSIVA.

Dr. **RAYMOND CRAWFURD** (with Mr. **LOCKWOOD** of Sheffield) showed a well-marked example of this condition in a boy, aged 6½. There were no traceable evidences of rheumatism in the family, though the child himself had disease of the mitral valve, which presumably was rheumatic. Injury, as in so many cases, appeared to have been the direct exciting cause at 2½ years of age. The bony growths for the most part seemed to have originated from the spinous processes of the vertebræ, and to have spread into the retro-vertebral muscles, more particularly the latissimus dorsi and trapezius; the child's back was traversed in several directions by elevated ridges of bone. The fixed curvature of the spine and the rigidity of the cervical muscles gave the child a very characteristic attitude. The upper arms were glued to the sides by ossification of the humeral attachments of the latissimus dorsi on either side. Skiagraphs were handed round to show the actual condition of the thumbs and great toes. The shortness of the thumbs was chiefly due to shortness of the metacarpal bones, and their rigidity to synostosis of the first and second phalanges. In the great toes the metacarpal bone was completely united by bone to the first phalanx, and the effort of Nature to compensate this condition had resulted in a throwing outward of the ungual phalanx beneath the second toes.

CONGENITAL PARALYSIS.

Dr. **LEONARD GUTHRIE** showed a case of myopathy in a child of 4 years of age. The disease appeared to have been congenital. The child had never been able to walk or stand. He could sit up, but easily fell backwards and was unable to rise. All the muscles were extremely weak, but in the arms he could perform most movements, although feebly. In the legs there was almost complete loss of power. There was diminution of both faradic and galvanic irritability, but no definite reaction of degeneration.

ACUTE ATROPHIC PARALYSIS AFFECTING BOTH UPPER EXTREMITIES.

Dr. **LEONARD GUTHRIE** also exhibited a boy, aged 6 years, with infantile paralysis affecting both arms, and also the intercostal muscles, so that the breathing was purely diaphragmatic. The legs were unaffected.

DYSPHAGIA, ASSOCIATED WITH UNILATERAL PARALYSIS OF THE EIGHTH AND BULBAR NERVES.

Dr. **STCLAIR THOMSON** showed a man, aged 36, complaining of dysphagia, and found to be affected with unilateral paralysis of the eighth and bulbar nerves. He had complained of giddiness and deafness for three years, and a year ago he became hoarse, and had difficulty in swallowing. On examination his left vocal cord was found to be paralysed. There was no œsophageal obstruction. Six months ago his palate became paralysed on the left side, and taste was lost on the back of the tongue on that side. The pulse had been rapid throughout. There was no specific history, but considerable improvement followed a course of mercury and iodide of potassium. Dr. Thomson remarked that intracranial lesion had here caused symptoms in many ways simulating malignant disease of the œsophagus, and that while it had destroyed the auditory nerve it had left the facial nerve intact.

RHEUMATOID ARTHRITIS.

Sir **HUGH BEEVOR** showed a case of chronic rheumatic arthritis in a man aged 60. It was almost confined to the metacarpo-phalangeal joints in either hand. The fingers were flexed to the ulnar side. This was attributed to the use of his hands in working the large "sweeps" of a barge. Skiagraphs of the hands were also exhibited.

ASTHENIC BULBAR PARALYSIS.

Dr. **HARRY CAMPBELL** showed a woman, aged 29. He believed this to be the fourth reported case in this country. The paralysis was incomplete, but became much aggravated if the muscles were used. Symptoms showed themselves fifteen months ago, when she noticed that she had difficulty of utterance if she sang for a short time. At the present time all the muscles ordinarily concerned in bulbar paralysis were affected by this curious weakness, and also the anterior part of the occipito-frontalis, and occasionally there had been loss of power in the arms when they had been raised for a time. The symptoms were always better in the morning after a night's rest. During mastication, for example, the muscles of the tongue became weak; and although she could at first speak well, yet after speaking for a time articulation became difficult. No lesion had been found in the brain in any of the recorded cases. There was no sensory change, and the electrical reactions were normal.

Dr. **ORMEROD** had not seen a similar case of bulbar paralysis, but had seen the same kind of condition obtaining in other parts of the body, for example, in a man in whom the upper muscles of the thigh were affected.

MULTIPLE SARCOMATA OF SKIN.

Mr. **A. H. TUBBY** showed a man, aged 65, suffering from multiple sarcomatous tumours of the skin. The primary tumour was in the upper part of the right side of the scrotum, and was noticed six months before. A second tumour appeared on the left side, and then one under the jaw. Now there were hundreds, some of them of considerable size, all over the surface of the body, some of which had appeared during the last five days. The liver was enlarged, and there was some jaundice. Two members had seen similar cases. In one the original tumour appeared in the ischio-rectal fossa; in the other it occurred in the scrotum.

The **PRESIDENT** mentioned a similar case, and commented on the fact that a wide dissemination of sarcoma throughout the body was evidently compatible with fair general health.

ANTERIOR DISLOCATION OF THE HIP, PROBABLY CONGENITAL.
Mr. **TUBBY** also showed a child with an anterior congenital dislocation of the hip. He remarked that this form was more common than usually described, being present in one third of the cases. It was uncertain whether they were intra-uterine dislocations or birth dislocations. In this case there was no difficulty in the birth, and not until nine weeks afterwards was it noticed that something wrong existed. Three-fourths of an inch of shortening of the right limb existed. It was a true pubic dislocation. He had attempted to replace the bone under an anæsthetic, but had failed, as there was no definite acetabulum, and the head of the femur was misshapen and small. The anterior dislocations were more difficult to treat than the posterior dislocations, which themselves also presented great difficulties.

MEDICAL SOCIETY OF LONDON.

EDMUND OWEN, F.R.C.S., President, in the Chair.

Monday, February 27th, 1899.

AUTO-INTOXICATION AND ITS RELATION TO THE TREATMENT OF DISEASE.

DR. **SIDNEY MARTIN**, who read this paper, began by contrasting infection with intoxication, the latter meaning poisoning by chemical agents, usually the products of activity of the living germ. In auto-intoxication the body manufactured its own poisons, but the term comprised many different conditions, in some instances so widely different that he questioned the propriety of retaining it. He described auto-intoxication under three headings: (1) gastro-intestinal, (2) occurring in the course of chronic disease, (3) occurring in association with the glands of the body. He pointed out that the activity of a tissue in disease might be altered, and so produce symptoms in various ways—for example, by interference with vascular and nervous supply; by the accumulation of products of its activity; by the preponderance in it of certain mineral salts, especially potash, and by the action on it of some poison of external or internal origin. It followed that the determination of the cause of the effect on the tissue might be difficult, if not impossible; in other words, that what was observed as a symptom might be produced by many different causes which might throw an organ or tissue out of activity. A poison, he remarked, did not necessarily kill, and, failing death, the final effect of the poison was in many cases the result of an action on various tissues and organs. This was particularly to be noticed with the poisons that acted in disease. In reference to auto-intoxication of intestinal origin the chief examples were ascribed to bacterial decomposition of the gastro-intestinal contents, as distinguished from bacterial infection of the intestine. With the exception of the bacillus coli communis, most of the intestinal bacteria were non-pathogenic as long as they remained inside the intestine. If, however, the products of putrefaction were absorbed the body was poisoned, and this process frequently passed from one of intoxication to one of infection of the intestinal wall, or of the peritoneum. He thought that intestinal bacterial intoxication should be grouped with the bacterial processes that occurred in disease and not as an auto-intoxication. Another form resulted from the indigestion of food in which, in addition to the local symptoms, there were others described as remote or reflex. This subject was a very complex one, and must be discussed in reference to auto-intoxication since during the normal processes of digestion bodies were formed which possessed poisonous properties. He pointed out that normally in the process of absorption the albumoses were transformed by the mucous membrane of the stomach and gut into the proteids of the body, but it was quite possible that their occasional presence in the blood might account in part for some of the symptoms of disordered nutrition. Passing on to Group 2 he observed that some of the cases must probably be ascribed to an auto-intoxication in which the poisons originated in the tissues of the body, and were not due to bacterial activity. Although most of the proteid substances of the body were non-toxic some had a distinct physiological action, but it was quite possible that in disease some of the altered products might determine functional disturbances. He added that, so far, no poisons resulting from the splitting up of proteid or other body substances without the aid of bacteria had ever been separated. Discussing the nature of Bright's disease and diabetes, he suggested that the symptoms of uræmia should be ascribed to the selective action of a poison or poisons on the cerebral centres. He referred to Bouchard's contention that in uræmia the normal toxicity of urine was greatly diminished, from which that observer inferred the retention of poisons in the body. The substances met with in diabetic patients which were not present in health were not very toxic, and no poison had been isolated which would account for the phenomena, though the occurrence of peripheral neuritis might be taken as evidence of an intoxication. He discussed cholæmia and anæmia from this point of view. The author then passed on to consider the effects of removal of normal glands in respect to nutrition and their bearing on disease. The effects of their removal had, he said, been ascribed to the absence of an internal secretion which was normally given to the body, and which was essential for the carrying out of certain physiological processes; or, on the other hand, the phenomena following removal might be due to the non-elimination of some poison inimical to life. In view of the well-marked physiological action of certain normal glands, it was fair to suppose that in the normal body these glands formed substances as internal secretions which were essential to the maintenance of the complex physiological processes of health. But an excess of this very physiological activity might in itself be a determinative cause of disease.

The **PRESIDENT** asked whether rickets was not a form of autointoxication of gastro-intestinal origin, to which cause, moreover, he attributed the headache and fatigue which sometimes followed excessive exertion, massage, etc.

Dr. **MOTT** said he had been engaged with Dr. Halliburton in some interesting researches on the biochemical changes associated with general paralysis of the insane. The degeneration of nervous tissue led to the formation of fatty substances which stained black with osmic acid, which ordinary myelin did not, so that there was evidently some change. This fatty change was also well marked in muscle fibres and other tissues. They had made experiments with the cerebrospinal fluid of general paralytics, which brought about a fall of the blood pressure, an action also exerted by cholin. They inferred that the action of the fluid was due to its containing cholin, a supposition which was confirmed by direct investigation. They also found a small quantity of nucleo-protein, which was a powerful coagulating agent, and might possibly explain some of the complications of general paralysis due apparently to venous stasis. Neurin, which was readily converted into cholin, was also a powerful poison. Injections of glycero-phosphoric acid into the circulation gave negative results. He had examined 150 cases of general paralysis with the view to determining the cause of death, and in addition to widespread degeneration of the kind described, he had remarked the existence of a very high blood pressure during the epileptiform seizures. He pointed out that the muscle degeneration could not be due to degenerative changes affecting the nerves, of which he had convinced himself by direct examination. He attributed these effects to a process of auto-intoxication, to counteract which he advocated copious injections of saline solution.

Dr. **WASHBOURN** agreed that the term auto-intoxication was very misleading, as it was used to express two distinct conditions, one the absorption of substances from the intestine and the other to denote certain changes occurring in chronic disease such as cholæmia and uræmia. It still remained to be proved moreover that these conditions were due to the circulation of poisonous substances in the blood. He asked for some explanation of the fact that the toxic substances formed during digestion were not absorbed along with the other products of digestion. He suggested that in cholæmia and uræmia there was probably an alteration in the metabolic functions of the organs profoundly affecting nutrition.

Dr. **Martin**, in reply, said he was unable to define the exact nature of rickets. He thought it was a mistake to include under the head "auto-intoxications" processes of bacterial original.

Fothergillian Prize and Medal.

The **President** announced that the Fothergillian prize and medal for 1899 had been awarded to Dr. Monckton Copeman for his work in connection with glycerinated lymph and on the excellent effects thereof.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Surgery.

R. L. Swan, M.D., P.R.C.S.I., President, in the Chair.

Friday January 20th, 1899.

Dislocations and Fractures of the Astragalus.

Mr. H. **Gray Croly** read a paper on astragalus dislocations and fractures, and gave a history of several very important cases which had occurred in his hospital and private practice.

Mr. **Lentaigne** exhibited a cast of fracture of the astragalus. This particular injury was exceeding rare. It was a fracture of the anterior portion of the astragalus, with displacement forwards and outwards of the fractured head of the bone, and was caused by jumping off a car. After an interval operation was allowed. The loose head of the astragalus was found to be completely detached from all structures except by a few threads of fibrous tissue. The head of the astragalus was reduced and the wound closed. The case was still in hospital, and would be exhibited, he hoped, later on.

Mr. W. I. **Wheeler** said Hancock's statistics of 109 cases of complete removal of astragalus for compound dislocation, simple dislocation, and disease showed 14.6 per cent. death-rate.

The **President** had seen one case of dislocation which was remarkable, inasmuch as it bore our what Mr. Croly had said—the apparent facility with which the astragalus could be dislocated by accident. He had made several endeavours to imitate that force on the dead subject, because he had often had occasion to remove the astragalus for aggravated equinovarus in the adult. It was a very successful operation. In this operation he always had to remove the astragalus piecemeal.

Mr. **Croly**, in reply, said that Boyer thought that bony ankylosis between the tibia and os calcis was inevitable after excision of the astragalus. With regard to immediate excision at Broca's time, he had 16 deaths following immediate excision, but none following excision when the sloughs took place. It was a remarkable fact that if, when the astragalus was dislocated forwards, forwards and inwards, or forwards and outwards, it was not removed, it acted as a foreign body; but if it went backwards, where it had plenty of room, it did not do any harm whatever. His strong opinion was that immediate removal of the bone, with careful dressing of the wound was the proper treatment.

Chronic Intestinal Obstruction.

Mr. John **Lentaigne** exhibited a patient from whom he had removed the cæcum and a small portion of the ileum for chronic intestinal obstruction, resulting from stricture at the junction of the ileum and cæcum. The patient, a girl, aged 12, had come under his care on April 16th, 1898. She was then in a very miserable condition, vomiting frequently and rejecting almost all food, and complaining of constantly recurring attacks of severe pain in the abdomen; the abdomen was greatly distended, and the attacks of pain were usually accompanied by visible peristaltic movements of the intestines, which formed large tumours under the parietes moving slowly in various directions. These attacks would last for one or two minutes, after which the patient would be free from pain. The bowels were very constipated, no motion ever coming except after the administration of purgatives followed by enemata. The illness had commenced two years before, and the girl had been steadily getting worse. On April 22nd he opened the abdomen in the median line. Huge coils of intestine, which proved to be the ileum enormously distended and with greatly thickened wall, came out at once. On passing the hand along this enlarged intestine it was found to end in a hard mass firmly bound down by adhesions in the right iliac fossa. Owing to the adhesions it was impossible to bring this mass into view, and as the patient was almost moribund before the operation, Mr. Lentaigne decided to give temporary relief by forming an intestinal fistula in two stages, after first emptying the distended bowel by enterotomy. On incising the gut two large basinsfull of pea-soup-like fæces flowed out, and the intestinal cavity was irrigated and washed out with a stream of warm water; the opening was then closed by silk sutures, and the gut was returned to the abdominal cavity. When emptied and flattened out, the intestine seemed to be about 4 inches across from lower margin to mesentery. The left hand of the operator was introduced into the cavity and directed well over to left side; it was then cut down upon and the bowel securely fastened to the opening by a few sutures passing through the parietal peritoneum, muscle, and skin. The incision in the median line was closed with three layers of sutures, the two deeper of silk for peritoneum and muscle, and the superficial of catgut for the skin, covered by a layer of celloidin. The small opening on the the left side of the abdomen was kept open by a plug of iodoform gauze, and on the third day after operation the fistula was made complete by an incision into the bowel. There was an immediate improvement in the patient's condition. The bowels emptied themselves continuously through the fistula, and the vomiting and attacks of pain ceased almost at once. On June 27th, as the patient had got into good condition, and was anxious to be relieved of the annoyance of the fistulous opening, excision of the cæcum was performed, with end-to-end suture of intestine by Kocher's method. The bowels acted naturally four times on July 29th, and almost every day after. There was considerable delay in the healing of this wound, as infection of the silk used in suturing the parietes seemed to have occurred, the silk slowly coming away through a small sinus at the upper end of the wound, and it was not completely healed until October, 1898. The intestinal fistula closed of itself as soon as the bowels acted normally, and on July 12th it had practically closed, neither fæces nor flatus coming through it. It was now represented by a firm, clean scar, no trace of the opening existing. The patient was shown to be in excellent health and condition, the bowels acting regularly every day.

Remarks were made by Mr. **Wheeler** and Mr. **Croly**; and Mr. **Lentaigne** replied.

Epidemiological Society.—At a meeting held on February 17th, the **President** (Dr. Franklin Parsons) in the chair, Dr. **Boobbyer**, Medical Officer for Nottingham, read a paper on Ten Years' Experience of Typhoid Fever in a Midland Town. He described, with the aid of maps, the geological and physical characters of the site of the city, which was built on the sandstones and red clays of the trias, the greater part on the Bunter sandstone, at elevations of 80 to 400 feet above the river Trent, one district lying low on alluvium and gravels, and subject to occasional floods. Two important features were the occurrence beneath the town of numerous caverns in the rock, frequently converted into huge cesspits, which often interfered with building and sewerage operations and the cleaning out and filling up of which was a work of much difficulty; and, secondly, the extensive use of polluted refuse, and made soil in levelling building sites to a depth of 20 or 30 feet. Prior to 1845 there was within the city a population of 50,000 crowded on 920 acres of sewage-sodden soil, but with the extension of the municipal boundaries, and the inclusion of a large semirural district, many of these rookeries had been cleared, while cottages and houses were being erected at the rate of many hundreds annually. The water supply was at the rate of 21 gallons per head, drawn from deep borings in the rock at a considerable distance from the town. The sewers were of recent construction and well planned, the sewage, 6 to 7 million gallons daily, being conveyed by gravitation or by pumping to a sewage farm six miles away, and 1,300 acres in extent. But there were as yet only 10,000 houses with waterclosets; in 400 middens were retained, and the remainder were provided with 40,000 pails. The death-rate from typhoid was always high, having equalled the mean of the great towns in three years only—namely, 1879, 1888, and 1892, in which the mean summer temperature and the mortality from diarrhœa were also very low. No relation could be traced between the prevalence of typhoid and the rainfall, the geological formation, or the elevation of the site. Poverty, dirt, overcrowding, and soil pollution seemed to be the sole determining local conditions of its special incidence. Houses with five or more rooms amounted to 45 or 50 per cent. of the whole, but contributed only 14 per cent. of the cases, 86 per cent. occurring in those with fewer than five rooms. The incidence of cases was 1 in 558 of the houses with waterclosets, 1 in 120 of those with pails, and 1 in 37 with midden privies, being evidently connected with the relative degree of soil and air pollution. He had investigated several local outbreaks that could not be traced to water, milk, or shellfish, but in which its spread by means of human intercourse was conclusive, while in the general hospital 843 cases, and in the children's 157 cases, had been treated in the ten years, 22 and 11 of the nurses respectively, or 2.5 and 7.0 to 100 patients, had contracted the disease. His conclusions were that (1) a sustained mean temperature of over 55° F. was followed by a higher autumnal rise in the prevalence of typhoid, and a cooler summer by a lower than the average; (2) that the disease was endemic in poor crowded districts irrespective of elevation and geological formation, provided soil pollution and like favourable conditions were present; (3) that even on foul made-soil and where pail closets were in use the better class of houses suffered less than the poorer; (4) that the incidence was far less in houses with water-closets than with dry conservancy, and heavier on those with middens than on those where pails were used, the differences being more marked the poorer the class of houses; and (5) that it was directly communicable by personal intercourse even in well-regulated hospitals, and more so in the confined dwellings of the poor.—The PRESIDENT felt that much harm was done by underrating the communicability of typhoid.—Dr. SEATON thought that too much attention had been paid to water as a cause to the neglect of sanitary conditions. Remarks were also made by Dr. WHITELEGGE, Dr. BULSTRODE, Dr. WILLOUGHBY, Dr. T. THOMPSON, and Mr. SHIRLEY MURPHY; and Dr. BOOBBYER replied.

BRITISH ORTHOPÆDIC SOCIETY.—At a meeting on February 17th, Mr. JACKSON CLARKE showed a case of Severe Congenital Talipes Calcaneo-valgus. There was no defect of the fibula. The child after birth showed a tendency to fold the legs on the front of the abdomen with the feet together. He suggested that this had been the position *in utero*, and was the cause of the deformity. The patellæ were dislocated outwards. In this and other respects the child had much improved under treatment by manipulations and splints.—Mr. MUIRHEAD LITTLE showed two cases of Supposed Injury to the Shoulder at Birth. In both there was a history of difficult labour, one being instrumental, while in the other there was difficulty in delivering the shoulders. In both there was marked inward rotation of the arm at or just below the shoulders, and the movements of that joint were very limited, in one case so much so that paralysis was suspected, but electrical examination showed that it was not present. The head of the humerus felt unduly prominent behind, and there was a distinct depression in the region of the neck, as though the diaphysis were displaced forwards and inwards. He diagnosed separation of epiphysis with rotation of lower fragment. Massage and manipulations had effected some improvement. He had skiagraphed the parts, but at this early age (3 and 5 years) ossification was not advanced enough for much to be shown. Remarks were made by Mr. JACKSON CLARKE, Mr. JOHN POLAND, Mr. WILLIAM THOMAS, and Mr. KEETLEY.—Mr. POLAND showed: (1) Specimens of Fractured Neck of the Femur with vicious union in a youth of 21, with symptoms like coxa vara—he had excised the head of the femur and the redundant callus that prevented movement; (2) a specimen obtained by excision of Dislocation of the Shoulder with separation of the great tuberosity; (3) the cast of a case of Hallux Varus coming on at the age of 12 in a congenital clubfoot, there was some wasting, as if from paralysis, he was inclined to excise the joint, but it had proved unnecessary; (4) a case of Hallux Valgus from no apparent cause, he had excised the joint.—Mr. WILLIAM THOMAS showed a Wrench for the Treatment of Talipes. He did not think that wrenching would alone cure talipes, but, whatever could be done by wrenching, this instrument would enable them to do.—M CHISHOLM WILLIAMS showed (1) casts of cases of Webb Fingers from burn and of Great Progressive Hypertrophy the first and second toes in a girl aged 4 years, first notic three weeks after birth; (2) the cast of a Hand with Webb Fingers from a burn which he had successfully treated.—M KEETLEY showed a patient and a skiagraph. The case thought was one of Coxa Vara. She was 19 years old, and h had very severe knock-knees straightened by another surge by means of instruments. She had only then been able hobble by lifting the upper part of each instrument with h hands. She now wore no instruments, and could not wa at all.

DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND—At a meeting on February 23rd, Dr. H. RADCLIFFE CROCKER in the chair, the following cases were shown and discussed: The PRESIDENT: (1) Acne Varioliformis in a man; (2) Elephantiasis Græcorum in a woman—leprosy in its earliest stages—in a healthy-looking young patient.—Dr. P. H. ABRAHAM: A father and child with Tinea Tonsurans. Each had a small patch on the back of the scalp. Specimens of the fungus (probably large-spored) were shown under the microscope.—Dr. A. EDDOWES: A man with Folliculitis Necrotica.—Mr. W. T. FREEMAN (for Dr. STOWERS): A case of Lichen Spinulosus in a woman.—Mr. W. T. FREEMAN: (1) A case of Leukomelanoderma in a woman; (2) a case with a number of Senile Seborrhœic Warts in a woman; (3) a doubtful case of Rodent Ulcer upon the forehead of a woman.—The PRESIDENT, Dr. BOWLES, Dr. ABRAHAM, Dr. HOPE GRANT, Dr. EDDOWES, Mr. PERNET, and others joined in the discussion.

BIRKENHEAD MEDICAL SOCIETY.—At a meeting held on February 10th, Dr. H. NAZEBY HARRINGTON (President) in the chair, the following resolution was unanimously adopted:

> That the fee for filling up certificates under the Workmen's Compensation Act should be one guinea, and that the hospital authorities should be asked to allow their house-surgeons to charge the same.

—Dr. JAMES BARR of Liverpool delivered an address on Meningitis. He showed that the classification of the various types of the disease grouped under the generic head of leptomeningitis was still very indefinite, and even in the present day an anatomical basis was frequently adopted, according as the vertex, the base of the ventricles were chiefly affected. Bacteriology, from which much might be expected in the future, had so far taught very little except in tuberculous meningitis and cerebrospinal fever. They were, therefore, still obliged to classify cases as simple, purulent, tuberculous and syphilitic. As subdivisions of the purulent type might be mentioned traumatic and septic. He discussed the etiology, pathology, and symptoms of these different types, and held out a much more favourable prognosis than was usually given in such cases. Dealing with treatment, he condemned mercury and iodide of potassium except in cases of syphilitic meningitis. In this disease he had no faith in the new antipyretic and analgesic drugs. Bromide of potassium he had long discarded, while chloral hydrate, sulphonal, paraldehyde, urethane, and all the newer soporifics were by him discredited. In the way of drugs his sheet anchor was opium, freely administered. Latterly, he had been using morphine almost exclusively in quantities varying from about two up to six grains daily. In very young children he started with a twentieth of a grain every three hours, and rapidly increased the dose so as to keep the child constantly under the action of the drug. With children of 6 or 7 he began with a sixth of a grain: over that age he generally gave the drug hypodermically. In a very successful case in an adult he administered six grains daily for a fortnight. If the treatment were commenced early before there was any effusion into the ventricles it was very difficult to poison a patient suffering from meningitis with opium. He did not look upon opium as a specific, but merely used it as a means to an end—to allay cerebral excitement, and to keep the patient in the most favourable condition for getting well. The patient was placed in a quiet, dark, carpeted room, in a comfortable bed, so that his nervous system might not be disturbed by any external impressions. So long as the patient's temperature was above the normal he wore an ice cap, and cold compresses were also usually applied to the abdomen. In all these cases Dr. Barr was convinced there was impaired nutrition, hence his patients were well fed with light articles of diet such as peptonised bread and milk, various kinds of children's foods, and other farinaceous articles of diet, vegetable juices, maltine, bread and butter, etc. The bowels were kept open, and, as occasion required, various remedies were used to check vomiting, while, almost as a routine, internal antiseptics such as salol, naphthol, etc., were used.—A vote of thanks to Dr. Barr was proposed by Dr. H. L. PEARSON, seconded by Dr. DIXON, and supported by Drs. HARRIS, STANSFIELD, MARSDEN, and the PRESIDENT.—Dr. BARR replied.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.—At a meeting on February 17th, Professor T. KENNEDY DALZIEL showed a patient, aged 15, on whom he had three months previously performed Laparotomy, and sutured an enteric ulcer perforation eleven hours after its occurrence, which had taken place in the third week, soon after the fall of the temperature. The Lembert suture had been applied in the longitudinal axis of the bowel, the peritoneum flushed with normal saline solution, and drainage tubes inserted into the pelvis, from which the fluid was withdrawn every half-hour by a syringe. The occurrence of the perforation had been characterised by sudden onset of pain, tenderness, distension, and rapid elevation of temperature, which, however, fell from 103° to normal the day after the operation. Specimens were shown of sutured perforations where the patient had survived some days. These were seen to be satisfactorily healed. Dr. Dalziel drew attention to the fact that, though the operation had been performed in nearly 100 cases elsewhere, this was the first successful case in Glasgow, if not in Scotland. He had operated on eight cases in all, four of them, however, being moribund ere seen, so that one success had been obtained in four possible cases. Recent statistics suggested this as a probable percentage of recoveries. He also strongly insisted on the importance of accurate bacteriological estimation of the peritoneal infection in these cases, as it seemed probable that the issue would be found largely to depend on its nature. Leucocytosis as an aid to the early diagnosis of rupture was considered.—Mr. R. H. PARRY showed a case of Extracapsular Fracture of the Femur, on which he had operated on account of marked shortening, which could not be overcome by extension. With the aid of a periosteum elevator the displaced surfaces were reposed and maintained in position simply by extension. The result was extremely satisfactory.—Dr. J. GALBRAITH CONNAL showed a very large Nasal Polypus, with cystic degeneration, from a female patient, aged 47 years.—The SECRETARY showed, for Dr. GLEN, a specimen of a Heart with a single ventricle.—Professor R. M. BUCHANAN showed outline drawings of a Heart with a single ventricle and a single auricle. This very malformation had been found in an infant of about six months, who had presented during life the ordinary symptoms of *morbus cœruleus*.

NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.—At a meeting of this Society on February 9th, Dr. JAMES MURPHY (in the absence of the President) in the chair, Dr. G. V. MILLER exhibited a case of Recurrent Intraocular Hæmorrhage. The patient, a man aged 28 years, had five months previously observed a black spot before the right eye, which gradually increased in size, and in four hours the eye had become totally blind. Fifteen years before, and again five years ago, the patient noticed a similar spot before the same eye, followed by dimness of vision lasting about a fortnight. There had been frequent attacks of epistaxis; there was no history of injury nor any discoverable cause. Upon examination, at the onset of the present attack, there was evidence of extensive intraocular hæmorrhage, either subhyaloid or between retina and choroid, the media at that time being clear. At a later date, however, the hæmorrhage had evidently burst into the vitreous. Dr. Miller reviewed and discussed the etiology and pathology of this condition, in which discussion Dr. WILLIAM ROBINSON and Dr. BENNETT also took part.—Dr. OLIVER showed a man suffering from Plastic Bronchitis, and exhibited several large and very perfect bronchial casts which the patient had expectorated. The history extended over a period of four years, during which severe attacks of dyspnœa followed by the expectoration of the casts had occurred every three or four months. The casts in this case were solid and not tubular. No cause had been discovered.—Dr. G. R. MURRAY showed: (1) A case of Unilateral Glosso-laryngeal Paralysis in a man, aged 46—the lesion was not considered to be central, but rather to be due to a localised syphilitic meningitis involving the roots of the spinal accessory and hypoglossal nerves; (2) a case of Progressive Muscular Atrophy in a woman aged 43 years, passing into the condition known as amyotrophic lateral sclerosis; (3) a case of Locomotor Ataxia with Goitre in a man, aged 52, with a definite history of syphilis; (4) a woman, aged 23 years, showing distinct, though slight, evidences of Cretinism.—Dr. HUME exhibited a series of stomach cases: (1) A patient after Gastrostomy, by Witzel's method, for Carcinoma at the Cardiac Orifice; (2) a man after Gastro-enterostomy for Dilated Stomach due to dense adhesions and kinking at pylorus; Dr. Hume urged the direct method of suturing in this operation without the use of any plate or bobbin; (3) a man after Pyloroplasty for Inflammatory Stenosis of Pylorus.—Dr. Hume raised the subject of spasmodic stenosis of the pylorus. In the discussion which followed, Mr. WILLIAMSON, Mr. MARTIN, Dr. BEATTIE, Dr. MURPHY, Dr. MURRAY, and Dr. HIND took part.—Mr. WILLIAMSON showed a boy upon whom he had recently operated for Acute Infective Epiphysitis of the upper end of the Humerus. He related a series of cases of acute osteomyelitis, and reviewed the extent of the various operations he had performed for this condition. His present opinion was that it was not necessary to remove the shaft. He thought that cases of chronic necrosis were now comparatively rare owing to infective osteomyelitis being recognised and treated early.

NORTH OF ENGLAND OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.—At a meeting on February 17th, 1899, Dr. DONALD (President) in the chair, the following specimens were shown:—Dr. WALTER: (1) Dermoid Tumours of Ovary, (2) Ovarian Cyst, (3) Scrapings from Endometrium.—Dr. BRIGGS: Diffuse benign Adenomyoma of the Uterus occurring in one Horn of a Bicornuate Uterus.—Dr. GEMMELL: Uterus removed for early Malignant Disease, together with Microscopic Sections.—Dr. GRIMSDALE: Multiple Fibroids of the Uterus complicated with Pyosalpinx removed by abdominal hysterectomy.—Dr. S. BUCKLEY read notes of two cases of Uterine Fibroids complicating pregnancy in which abdominal section was performed. Case I, a patient, aged 28, pregnant 3½ months. The fundus was pushed to the left by a firm rounded swelling reaching up to the umbilicus, and very tender to the touch. On opening the abdomen the mass was found to be a soft fibromyoma springing from the right side of the uterus. It was not pedunculated, and could only be removed by abdominal hysterectomy. As the symptoms were not urgent the abdomen was closed. The patient made a good recovery, and five months later was delivered naturally of a full-term living child. Case II, a patient, aged 28, 5½ months pregnant. A tumour the size of a large cocoanut, was found to be attached to the left side of the fundus. It was freely movable, very hard, and had caused severe pain, the result of localised peritonitis. The abdomen was opened, and a pedunculated myoma found attached to the left cornu of the uterus. The pedicle was transfixed and ligatured in the ordinary way, and the tumour removed. The patient made an uneventful recovery, and was now almost at full term.—Dr. ARNOLD LEA read notes of a case of Sarcoma of the Ovary in a girl aged 13 years. The tumour, which had attained the size of a seven-months pregnancy, had been noticed for four months, and had grown rapidly. Abdominal section was performed. The tumour was adherent to the great omentum, which was removed along with it. The right ovary was normal, and was not taken away. The patient made a good recovery from the operation. The tumour was a soft sarcoma, very vascular, and showing numerous hæmorrhages. Microscopic sections showed it to be of the round-celled variety. The prognosis of sarcoma of the ovary in young girls was very bad. Of 26 cases recorded as operated upon, 7 died as the result of the operation (27 per cent.). Recurrence within a short time was very frequent, most cases dying from secondary growth within a year of the operation.—Dr. W. K. WALLS read a communication on the treatment of Severe Accidental Hæmorrhage—generally concealed—based upon a personal experience of 38 cases, and he discussed the treatment of this condition. He maintained that rupture of the membranes, as generally advised, was injudicious, owing to the inertia of the uterus generally present in these cases. He upheld the value of the plug and dilator combined, as in De Ribes's bag. After summarising the methods of active delivery *per vias naturales*, he discussed the value of abdominal section, expressing the opinion that it could only have a very limited field of usefulness. He suggested that after delivery of the child, if the uterus remained inert and did not respond to ordinary stimuli, vaginal hysterectomy might be justifiable, alleging that many of the fatal cases of concealed accidental hæmorrhage were brought about by the intractable *post-partum* hæmorrhage so commonly experienced.

NEWPORT MEDICAL SOCIETY.—At a meeting on February 1st, Mr. H. E. WILLIAMS (President) in the chair, Mr. O. W. MORGAN showed a case of Cystic Tumour of the Neck.—Mr. H. B. SEDDON read notes of and showed a case of Raynaud's Disease.—Mr. J. LYNN THOMAS read a short paper on Thyroidectomy with and without General Anæsthesia, and showed specimen of tumour removed. Mr. THOMAS also showed a special form of Scissors for convenience whilst operating.—The HONORARY SECRETARY read a report of Committee referring to the proposed lending library of the Society with draft of rules. The same were discussed and agreed to.

REVIEWS.

THE YEARBOOK OF TREATMENT FOR 1899. A Critical Review for Practitioners of Medicine and Surgery. Cassell and Company, Limited, London, Paris, New York, and Melbourne. (Crown 8vo, pp. 480, 7s. 6d.)

THE *Yearbook of Treatment* is now so well established in the favour of the profession, not only in this country but in Greater Britain and in the United States, that it is hardly necessary to do more than notify the appearance of the fifteenth issue. The book gives a bird's eye view of the whole field of therapeutics, and it is interesting to note the points in the mental landscape thus presented that stand out most prominent at the first glance. This year tuberculosis overtops everything else. The most valuable feature in the new issue of the *Yearbook*, and a novel one, is an article on the Open-air Treatment of Phthisis by Dr. F. W. Burton-Fanning, which is one of the best and briefest accounts of the subject that we have met with. Dr. Vincent D. Harris deals with Diseases of the Lungs and Organs of Respiration, and here also the prevention of tuberculosis and its treatment in sanatoria hold the place of honour. In regard to diseases of the heart and circulation, Drs. G. A. Gibson and James A. Dunlop have but little in the way of progress to chronicle, and the same thing may be said concerning most of the other articles, which are contributed by writers whose names are a guarantee of their competence for the task. Needless to say they have done their work thoroughly well, as far as there was material available for the purpose; but even the most practised of "eminent hands" cannot make bricks without straw. Speaking of dermatology, Mr. Malcolm Morris says that "the tide of progress flows more strongly at one time than another, and this year has been a period of slack water;" and this remark may be extended to therapeutics in general during the last twelve months.

The *Yearbook of Treatment* is so conveniently arranged and so fully indexed, contains so much matter, and is withal of such manageable size that it is no wonder it should have become indispensable to all members of the medical profession who wish, with the least possible trouble, to keep themselves abreast of therapeutic progress. In its adaptation to its purpose it reminds us of a royal personage's description of an ideal secretary, who was "never out of the way and never in the way." So in the *Yearbook of Treatment* the busy practitioner will find at once just what he wants, and no more. He is not irritated by foolish or crude fancies which might lead him to say in his haste that all men are liars. The gaseous elements in the therapeutic output of the year have been evaporated, till only a solid residue of useful knowledge is left. We are gratified to observe that, as in former issues, the EPITOME of the BRITISH MEDICAL JOURNAL has proved of service to the writers of many of the articles, though the indebtedness is not always acknowledged.

We commend this edition of the *Yearbook* to the profession as giving in the smallest compass the greatest amount of information selected by recognised authorities in all the practical departments of the healing art on the advances made in their respective provinces.

DESCRIPTIVE CATALOGUE OF THE ANATOMICAL AND PATHOLOGICAL SPECIMENS IN THE MUSEUM OF THE ROYAL COLLEGE OF SURGEONS OF EDINBURGH. By CHARLES W. CATHCART, Conservator, Fellow of the College. Vol. II. Diseases of the Skin, Nervous System, Eye, Alimentary Canal, and Urinary Organs. Edinburgh: James Thin. (Demy 8vo, pp. 558. 7s. 6d.)

WE had occasion to review favourably the first volume of this *Catalogue* nearly nine years since. Mr. CATHCART has clearly continued his work with most methodic deliberation. The compiler has his own views on classification in pathology; In the *Edinburgh Medical Journal* for July and August, 1896, he advocated a very rational method for the arrangement of pathological specimens. A strict relation between the physiological basis of health for organs or tissues, and the disturbances of that physiological basis which leads to disease, is maintained. This system will alter catalogue classification if generally adopted. Thus the first physiological basis of health in the new order is "normal original structure." The second "basis" is "original endowment of vital energy and the power of maintaining these (*sic*)." Against these first two normal bases Mr. Cathcart places first congenital malformations, functional defects, new growths, and senile changes. Thus, without going further into his scheme, Mr. Cathcart's arrangement of pathological conditions is both logical and scientific.

When it is applied to the arrangement of museum specimens, however, some difficulties would arise. Thus "congenital malformations" include teratology, but the work of Ballantyne and other living authorities shows that while many monsters and malformations depend on perversions of development, causing an "original structure" to be abnormal from the first, on the other hand many other types of monstrosity and malformation arise from inflammatory and other pathological processes common to fœtal and adult life, appearing in such cases very early, no doubt, but still not till after the "original structure" has developed. Again, "senile changes" are hard to distinguish from many active and passive forms of degeneration not peculiar to age. Mr. Cathcart's principles of pathological classification deserve, however, the respectful consideration of all pathologists.

As may be seen from the heading, this volume includes a wide range of specimens as far as difference of type is concerned. Several classes are of a kind in which the specimens always show well, and therefore always prove instructive, provided that they are properly mounted. The museum seems to possess a good series of specimens of diseases of the stomach and intestines. Mr. Cathcart's descriptions of these specimens are clear, so that the *Catalogue* will be of some value to workers who cannot visit Edinburgh to study the collection itself.

A MANUAL OF OBSTETRICS. By A. F. A. KING, A.M., M.D., Professor of Obstetrics and Diseases of Women and Children in the Medical Department of the Columbian University, Washington, and in the University of Vermont, etc. Seventh Edition. London: Henry Kimpton. 1898. (Demy 8vo, pp. 574. 10s. 6d.)

IT is not necessary to say much about the seventh edition of a work, the first edition of which appeared in 1882. The continued demand for it attests its utility. It makes no pretence to be anything but a condensation for the benefit of students of larger treatises, and, regarded as a summary, it is clear and good. It bears evidence of having been written, like so many students' textbooks, before the author had had enough experience to enable him to judge for himself on points of practice. Thus, in the section on decapitation, the learner is given his choice of three methods: (1) Pulling down the neck with a blunt hook, and then "nibbling" through it with scissors; (2) Ramsbotham's sharp hook (the name, however, not being given); (3) chains, wires, and strings passed round the neck through a long double cannula to protect the vagina, the neck being supposed to be severed by a sawing to-and-fro movement. No one who has had practical experience will hesitate for a moment between these methods. The string plan will not work. To pass an *écraseur* wire over the neck in a case of impacted shoulder is a matter of no small difficulty. Cutting through the neck with scissors is tedious and not easy. Ramsbotham had had enormous experience in difficult midwifery, and in consequence was a practical man, who knew what he was about, and whose statements as to matters of practice are always to be trusted. His sharp hook is comparatively easy to introduce, and severs the neck in a few seconds. No one who has used it would mention the far inferior alternatives here classed with it. Speaking of instruments for internal pelvimetry, the author says, "They can scarcely be used during labour, when most often needed, and give no better results than the hand under any circumstances." We agree with him: but why, then, figure or describe them?

The last chapter of the work is devoted to the jurisprudence of midwifery, a subject not handled by most writers on midwifery, but we think very properly included. We can on the whole recommend Dr. KING's book, as containing much information in a comparatively small compass.

LEHRBUCH DER GEBURTSHILFE. [Textbook of Midwifery.] Zur wissenschaftlichen und praktischen Ausbildung für Aerzte und Studierende. Von F. AHLFELD. Zweite völlig umgearbeitete Auflage. Leipzig: W. Grunow. 1898. (Royal 8vo, pp. 648. M. 6.)

THIS second edition is practically a new book. It is one of the most considerable works on midwifery that have yet appeared. It is full, well arranged, clearly and concisely written, and on the whole well illustrated. The reader is helped to find the subject he wants, not only by an index, but by marginal indications of the contents of each paragraph.

The author states in his preface that he looks at things from a decidedly conservative standpoint. He sees at present a growing eagerness for operations in midwifery which are not followed by such good results as the old ways of trusting to natural processes. As an example, we may take his views upon the use of the forceps. He says that people speak of "the indications of the school" and "the indications of practice" as if they were different and opposed. But the "indications of the school" are those based on scientific knowledge, and they alone ought to be acted on in practice. The forceps is by no means a harmless instrument, but a dangerous one. Hundreds of women die every year from unskilful and unnecessary use of forceps; a far greater number are gravely damaged; and no small number of children suffer from injuries produced by the untimely application of this instrument. In lying-in hospitals the deaths are fewer, partly because antiseptics are used, but chiefly because the instrument is seldom used, and the so-called "high forceps" is avoided. Not only would AHLFELD have the forceps seldom used, but he would limit closely what is to be done with it. In his view forceps should never be applied till the head has entered the pelvic cavity, and should be removed before the head has passed the vulvar orifice, the delivery of the head being completed by "Ritgen's manœuvre"—that is, pressing forward the head by a finger in the rectum. Ahlfeld must have sympathetically welcomed Professor Sinclair's address at Montreal.

The plugging of the uterus with gauze for *post-partum* hæmorrhage has not captivated Ahlfeld. He says he has only done it once, and then without effect. The uterus did not contract, and after removing the plug hæmorrhage was stopped by kneading the uterus. He does not advise his students to do it; for he thinks that if the uterus is compressed, emptied, and the hot douche used, gauze plugging will not be required. He says: "When Dührssen says that hundreds have used gauze plugging with success, that only shows to me that many accoucheurs have not yet learned to use the simplest means of combating *post-partum* hæmorrhage," he adds that numerous contributions to the medical journals show that gauze plugging cannot be relied upon either to stop hæmorrhage or to prevent septic infection.

Our author is not in all things bound by the teaching of his youth. He has discarded the trephine perforator, so long the favourite of the German obstetrician, and adopted an English scissor-shaped instrument. He suspends judgment on symphysiotomy, for he rightly says that the observations of the next few years must teach us how many women are and remain crippled by the operation, in private practice as well as in lying-in hospitals. Only then shall we be able to judge of the true value of the operation.

It is not necessary to quote further the opinions of Professor Ahlfeld. It will be enough to say that this is a book well worth reading by all who have to teach midwifery, and by general practitioners who know German well enough to enable them to read it easily.

NOTES ON BOOKS.

TROPICAL MEDICINE.

DR. IZETT ANDERSON, in his small work *Yellow Fever in the West Indies* (London: H. K. Lewis. 1898. Demy 8vo, pp. 122, 3s. 6d.), differs from other authors as to the geograpical distribution of the disease, he says: "It generally occurs in the West Indies, the tropical regions of Africa, and North and South America, but it has also been met with in Europe and elsewhere." It is usually believed that yellow fever is endemic only in the West Indies, and in certain sections of the Spanish Main, and to be unknown in tropical Africa, with the exception of certain portions of the West Coast, where it has prevailed epidemically. In North America it has also prevailed only epidemically in the Atlantic States, the valley of the Mississippi, and recently on the West Coast as far as Port Guagmas. It has been carried several times to European ports by infected ships, but it has never spread on land with the exception of the south-west coast of the Iberian peninsula, Majorca, and once in 1804 from Cadiz to Leghorn. Asia and Australia have never been visited. Dr. Anderson briefly disposes of its etiology by saying that as there is nothing definitely settled with regard to its bacteriology, "it is allowable to conjecture that the disease may be due to combined atmospheric and telluric conditions," and he hazards the suggestion that blankets and clothes may convey contagion by absorbing and retaining "a section of the climate of a yellow fever district." Dr. Anderson believes that the disease can be cut short by the administration of calomel and quinine in doses of about a scruple each. He further recommends the administration of carbolic acid and bicarbonate of potash in effervescence with fresh lime juice throughout the whole course of the disease. A similar mixture was vaunted many years ago by Pacini in the treatment of cholera. Although some of the statements in the book are open to doubt, the author gives a good sketch of the disease, and his remarks on diagnosis are valuable.

Dr. HEATON'S *Medical Hints for Hot Climates and for those Out of Reach of Professional Aid* (London and Calcutta: Thacker, Spink and Co. Crown 8vo, pp. 160. 3s. 6d.) contains 166 pages, and is divided into six chapters. An introduction deals with medicine chests, drugs, appliances, doses, and measures. The first chapter is on the preservation of health and the filtration of water; it contains some remarkable statements, the most wonderful being, perhaps, those on malaria. The author tells us to "kindle fires near the camps, since they ward off malaria, and by decomposing it render it inert"; and further: "marsh miasm is absorbed or rendered innocuous by its transit across water, and its poisonous properties are arrested and neutralised by trees." The second chapter is headed "Food, Diet, and Recipes," but it consists of three pages, which deal only with milk, beef-tea, barley water, egg flip, and imperial drink. The third chapter is on fevers, at least such as Dr. Heaton pleases to call so, because while "hectic fever" forms one of the group, erysipelas, pneumonia, rheumatic fever, diphtheria, influenza, etc., are placed amongst the general diseases which compose the following fourth chapter. The fifth chapter is on accidents, and the last on the description of drugs. The book is not deserving of much praise.

An outbreak of relapsing fever in 1891, among the workers engaged in the Khojak tunnel works, gave Surgeon-Captain L. J. Pisani, F.R.C.S.Eng., I.M.S., an opportunity of studying the disease, and in *The Pathology of Relapsing Fever* (Calcutta: Thacker, Spink and Co.; 1897; demy 8vo, pp. 106, 3 coloured plates), he deals with the specific micro-organisms and the pathological changes it induces. There is nothing very original in the book, but it contains an account of recent literature and a good bibliography. The author gives an accurate description of the parasite, and mentions the methods used for examining and staining it in blood specimens and sections. He confirms the observations of the many authors who have noticed during the apyretic stage very motile, round structures, often united in pairs by a faint connecting thread, and supposed to be spores. But Metchnikoff, Baumgartner, and others, have not found these structures, and believe the spirillum to multiply by division. The author states that the mode of entrance of the parasite is still unsolved, but it is certain that it can enter through scratches or wounds inflicted while making *post-mortem* examinations in cases of relapsing fever, and, therefore, it seems not unreasonable to suppose that the parasite may be inoculated by blood-sucking insects. The disease occurs mostly among the poor and dirty, who are generally infested with bugs and fleas.

Annuals.

Whitaker's Naval and Military Directory and Indian Army List, 1899 (London: J. Whitaker and Sons. Demy 8vo, pp. 652, 5s.).—This work undoubtedly meets a "felt want" among a large section of the public who have neither time nor opportunity to consult naval and military official lists. It will therefore be welcomed as a handy book of reference, and as such we can recommend it. We find it, on the whole, wonderfully correct, but there are some errors which can readily be corrected by careful—and we would add expert—revision in a future edition. For instance, at page 127, we find the name of a well-known medical officer inserted twice over, and in the first entry his titles are wrongly stated. Perhaps in future editions the publishers will see their way to give the district staffs of the army more fully, and the departmental as well as the regimental lists.

The Muncipal Year Book for 1899, edited by Robert Donald (London: Edward Lloyd, Limited. Cr. 8vo, 2s. 6d.), is a useful annual, giving a good deal of information with regard to the great towns and boroughs, a short account of their general character, and the names of their principal officers. There are also shorter particulars with regard to urban districts councils. The special feature of the book, however, is the attention given to municipal industries, including the supply of water, gas, electricity, the management of tramways, and the erection of artisans' dwellings and municipal lodging houses. These are dealt with in separate sections, which apply to all the towns in the United Kingdom, with the exception of London, which, owing to the special characters of its municipal government, has to be dealt with separately.

We have received Vol. xxxv. of the *Minutes of the General Medical Council and of its Various Committees and Branch Councils* for the year 1898 (published and sold for the Council by Spottiswoode and Co., London; pp. 700, 12s.).—The minutes come down to December 1st, 1898; that is to say, to the conclusion of the last session of the Council. It is a matter of regret, and of no little inconvenience to those who have to make frequent reference to the minutes of the Council, that there should have been so long a delay as three months between the conclusion of the last session and the appearance of the volume of the minutes with the customary general index. The volume contains 16 appendices consisting of various reports presented to the Council during the year 1898, and the usual financial statement.

The new laboratories of the Middlesex Hospital Medical School are now complete, and a *conversazione* will be held in the new buildings on March 15th. The laboratories are equipped with the best modern appliances for instruction in original research, and at the *conversazione* many objects of interest will be exhibited.

THE PREVENTION OF TUBERCULOSIS.

York.

A meeting was held at York on February 25th for the purpose of forming a branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis. The Lord Mayor presided, and there was a large attendance. Mr. Frederick Shann, President of the York Medical Society, explained the origin of the movement, and Mr. H. M. Platnauer set forth the constitution and rules of the Association. Mr. Alderman Gray moved that the constitution be approved and adopted, and the motion was seconded by the Dean of York.

Mr. Malcolm Morris, in supporting the resolution, stated that since the commencement of the movement, seven months ago, it had spread beyond their wildest expectations. Branches of the National Association then inaugurated were now being formed in many cities in the empire, and it had spread not only through their own islands but to the colonies, Toronto having formed a branch association. Branches had been formed or were in course of formation in York, Huddersfield, Ipswich, Carlisle, Warwick, Plymouth, Bristol, Bournemouth, Dublin, Belfast, Glasgow, Dundee, Keswick, Leicester, Kendal, Chelmsford, Darlington, Sheffield, Nottingham, Londonderry, Stockton-on-Tees, and Toronto. After sketching the progress in sanitation which had taken place since Queen Victoria came to the throne, and describing the means by which tuberculosis was spread, Mr. Morris, referring to Mr. Chaplin's proposed measure, said he would make it a criminal act to sell milk from a cow which had visible signs of tuberculosis about it, and he considered it was the duty of public bodies and large institutions not to buy milk without a guarantee from the retailer that the cows had been tested with tuberculin. Turning to another point, an eminent scientific authority had recently criticised the Association on the ground that they had taken hold of the wrong end of the stick. It was urged by this gentleman that it was their duty to impress upon the Government the necessity for compulsory notification, but they considered that such a step would be too drastic. The person would then have to be placed in an institution and protected, and this was physically impossible. No Government would take it up unless the people demanded it, and he thought the best way out of the difficulty was to educate the people to adopt voluntary notification—a very different thing. The speaker pointed out the necessity for active personal support being given to the movement by men and women, and said they looked to women especially because they had charge of the children.

The resolution was adopted.

Mr. Butcher moved:

That the following ladies and gentlemen constitute the Council of the Association for the ensuing twelve months:—*President*: The Right Hon. the Lord Mayor (*ex-officio*). *Vice-Presidents:* The Very Rev. the Dean of York, Earl of Feversham, Lord Deramore, the Sheriff of York (*ex-officio*), Mr. J. G. Butcher, Q.C., M.P., Lord Charles Beresford, M.P., Rev. Canon Watson, Rev. F. A. Russell, Hon. Reginald Parker, Sir C. A. Milward, J.P., the President of the York Medical Society (*ex-officio*), the Senior Member of the Honorary Medical Staff of the York County Hospital, the Senior Member of the Honorary Medical Staff of the Dispensary, the City Medical Officer of Health (*ex-officio*), Mr. J. S. Rowntree. *Council:* Hon. Mrs. Wilkinson, Mrs. Edwin Gray, Mrs. Jalland, Mrs. Phillip Newman, Miss Wilkinson, Dr. Tempest Anderson, J.P., Mr. Butterfield, Dr. Evelyn, Mr. Edwin Gray, Captain Dunnington-Jefferson, Mr. W. H. Jalland, J.P., Mr. Robert Kay, Dr. Macdonald, Dr. Ramsay, Rev. H. Robinson. *Honorary Treasurer:* Mr. W. F. H. Thomson, J.P. *Honorary Treasurer:* Dr. Macdonald.

Dr. Jane Walker, in supporting the resolution, mentioned her own experience of the open-air treatment in Norfolk. She said that much of the work of the branch associations might come under the description of an "after-care" associaciation. Their Association should be in touch with the sanatoria for the poor, with the charity organisation societies, with the workhouses, and with all agencies that aimed at poor relief.

The resolution was carried, and the meeting terminated with the usual votes of thanks.

Halifax.

At a meeting of the Halifax Board of Guardians on February 22nd it was stated that Dr. Dolan, the Workhouse Medical

Officer, had called the attention of the Infirmary Committee to a report made by him on November 19th last with respect to the consumptive cases in the house, and suggesting that it would be preferable if the cases could be sent to a sanatorium outside the town. The Committee resolved that the Clerk be instructed to write to the Huddersfield, Bradford, Dewsbury, Leeds, North Bierley, and Todmorden Unions, and ascertain what action these unions were taking in the matter, and suggesting the desirability of amalgamating with these unions for the provision of a hospital in the district for the treatment of workhouse consumptive cases. The Infirmary Committee also resolved that a revolving shelter for open-air treatment of consumptive cases be obtained and placed on the male side of the hospital.

After some discussion the following resolution was agreed to:

> That the Clerk arrange for a conference of representatives of adjoining unions to consider the treatment of consumptive cases in workhouses, and to discuss the question whether such cases should be treated otherwise than in workhouses.

MANCHESTER.

A special meeting of the Committee recently appointed to make arrangements for a conference with a view to the formation of a society for preventing the spread of tuberculosis was held on February 21st, Professor Leech, M.D., presiding, when after full discussion it was resolved to convene the proposed conference. The nucleus of a Committee to embrace representatives of other towns and districts in the area to be covered by the Association was appointed. An early meeting of the more representative Committee will be held, when the objects of the Association will be further discussed and all arrangements for the conference made.

NORWICH.

At meetings of the Norwich Medico-Chirurgical Society held on February 7th and 21st, Mr. W. E. Wyllys in the chair, a discussion took place on the aims and objects of the National Association for the Prevention of Consumption and other Forms of Tuberculosis.

Sir Peter Eade opened the discussion, speaking first on the necessity of educating the public, and referring to our increased knowledge of tuberculosis. As regards treatment sanatoria must be public and private, and houses must be less damp with better surroundings. Speaking finally on the inspection of slaughterhouses, Sir Peter thought more good would be derived from Government inspectors than from medical men.

Dr. Barton observed that the strongest argument against notification urged by Dr. Pattin was that it would intimidate the early incipient cases from applying to their doctor at a time when there was the best chance of cure by the fear of being publicly branded as a consumptive. The sweeping assertion that all tuberculous cows must be killed was, if necessary, impracticable, as the outlay would be at least £12,000,000. Sir R. Thorne, in his Harben Lectures, asserted that it was only from the cows with tuberculous udders that experimentally tubercle bacilli had been found in the milk. He thought that the workhouse authorities ought to consider the question of supplying the accommodation for the consumptive poor in their districts, and might even use much of their spare workhouse accommodation for such cases.

Dr. Burton-Fanning observed that there were already twenty branches of the Association in process of formation, and he sincerely hoped that the outcome of the meeting would be the starting of one in Norwich. He described the objects of the Association as twofold—the education of the public as to the common channels of infection, and the erection of sanatoria for those already attacked. He remarked that at more than one place the establishment of a sanatorium had been followed by a diminution in the number of consumptive natives. Owing to the precautions taken, the risk of infection at a special institution for phthisis was reduced to a minimum. It was in the sanatorium that he was most interested, and he showed the charts of patients treated in the hospital, in their own homes, and at Cromer. He illustrated by these the part played by the various items of the treatment, and insisted on the absolute necessity of close medical supervision, the effect of half an hour's too much exercise being shown by the temperature.

Dr. Pattin, M.O.H., was of opinion that it was absurd to start upon a campaign against the tuberculoses without informing ourselves of their number and disposition, and this knowledge we could best acquire by notification. He therefore placed in the first rank notification of all tuberculous diseases, with, as a necessary corollary, the establishment of hospitals for the segregation of the dangerous cases. The policy propounded, as he understood it, of providing sanatoria for the well-to-do, was inadequately described as scratching the surface and neglecting the root of the mischief, which root he found to be most firmly implanted in the dwellings of the helpless and the wretched. Next, he placed regular infection of dairy cattle and the tuberculin test, though he warned members that in his judgment a lot of exaggerated statements had been made about ridding the world of intestinal tuberculosis in children. They would lower that amount, he hoped, but they would not eradicate the disease. Milk, in his opinion, was often contaminated in the dwelling. So important did he think infection in the dwelling that for five years he had carried out systematic disinfection after the death or removal of a tuberculous patient, whenever he could gain consent to do so. He thought instructing children while at school in the methods of preventing tuberculous infections was certain to be more efficacious than lecturing to grown-up people.

Dr. Crowfoot advised affiliation with the central Association, so as to obtain good speakers for a public meeting. He thought there ought to be fully equipped sanatoria for the poor; that this was better than trying to educate them with regard to the disposal of sputum, etc.; and that Boards of Guardians should provide these for their phthisical patients.

Dr. Long observed that we did not all regard the infection in the same light. Being due to the tubercle bacillus, a facultative saprophyte, it was both of a direct and indirect nature; the former, he thought, played a minor part in the spread of the disease, whereas the latter mode of infection could never be entirely got rid of, and hence the disease could never be stamped out. A protective serum might be discovered, but till then much good could be done by sanatoria. He thought the public had been misled as to the importance attached to milk and food as sources of infection, and in support of his contention instanced the account given by Dr. Clifford Allbutt, in the January number of the *Practitioner*, of his own family and several others drinking milk for several months known to contain swarms of tubercle bacilli, and yet none of them got tuberculosis.

Mr. Cecil Muriel, in reply to a question, said he had 8 patients under treatment in the Norwich Workhouse Infirmary—7 in an advanced stage. The guardians, he thought, would not do anything in the way of building sanatoria.

Dr. Beverley thought that the milk ought to be thoroughly investigated.

Dr. Burton-Fanning then moved:

> That the members of the Norwich Medico-Chirurgical Society are in favour of starting a branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis for Norwich and district.

This was carried unanimously.

Mr. Haynes Robinson moved:

> That a Committee be formed to carry out suggestions, and to call a public meeting, and that the following be nominated as members of the Committee: (for the City)—Drs. Barton, Beverley, Burton-Fanning, Pattin, M.O.H., and Mr. Haynes Robinson; (for the County)—the President (Mr. W. S. Wyllys), Drs. Crowfoot, Dent, Reeve-Manby, Owens, and Mr. H. Bournes-Walker, with power to add to their number.

This resolution was unanimously carried.

PORTSMOUTH.

A well-attended meeting of the members of the medical profession in Portsmouth and district was held on February 13th in the Mayor's Banqueting Room in the Town Hall. The subject for discussion was the new campaign against consumption, and it was resolved to send a requisition to the Mayor of Portsmouth, asking him to call a public meeting to take into consideration the formation of a local branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis.

PLYMOUTH.

A public meeting, convened with the object of forming a

Devon and Cornwall Branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis, was held on February 21st at Plymouth. The meeting, which was large and representative, was presided over by the Earl of Mount-Edgcumbe.

After some introductory remarks from the noble chairman, Dr. Theodore Williams (who with Dr. Childs represented the Association for the Prevention of Consumption) described in detail the objects of the Association. It was not medical men alone who were needed to grapple with the evil; they wanted all classes alike to help them. After explaining the nature and methods of the open-air treatment, and quoting statistics of the phthisis mortality in this country and abroad, Dr. Williams in conclusion expressed the hope that the land would be as free from consumption as it had been from leprosy. The successful attainment of that object would be another glorious achievement to mark the reign of Queen Victoria.

Mr. Paul Swain, speaking on behalf of the Plymouth Sanitary Authority, said he was certain that when the matter was ripe for their consideration that body would give it that patient, intelligent, and earnest advocacy which had always characterised them in the administration of sanitary matters. He could not agree with what Lord Salisbury had said on the question of compulsion. The time must come when the population was sufficiently interested in the question as to lead the sanitary authorities of great towns and urban districts to deal with consumption in the same way as they did scarlet fever, typhoid, and other infectious diseases. He hoped the people of the two counties would join the Association in great numbers.

Dr. Childs supplemented the information given by his codelegate, Dr. Williams, and urged the audience to consider the question as a national one.

The Mayor of Devonport proposed the formation of a Devon and Cornwall branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis, and that those present should form themselves into a general Committee for that object.

Dr. F. M. Williams seconded, and the resolution was agreed to unanimously.

Sir Massey Lopes moved:

That an Executive Committee of twenty gentlemen from Devon and Cornwall be nominated to organise the newly-formed branch.

The motion was seconded by Dr. May, who announced the names of the gentlemen nominated for the Executive Committee as follows: Drs. M. Bulteel, W. L. Fox, W. Gordon, W. Hammond, Montgomerie, N. E. Norway, E. Thompson, R. Pollard, H. Webber, and W. L. Woollcombe, and Messrs. W. H. Bloye, D. Cameron, E. St. Aubyn, R. J. Lake, A. R. Bouchier, W. Grylls, L. C. Foster, G. Soltau Symons, C. H. Radford, and R. E. Page.

The motion was adopted.

Archdeacon Wilkinson proposed, and Mr. R. J. Michie seconded, the election of the following officers of the Branch:—President: The Earl of Mount-Edgcumbe. Vice-Presidents: Lord Falmouth, Sir J. B. Phear, Sir Massey Lopes, Dr. Clay, Mr. W. H. Alger, Dr. Davey, Dr. Montgomerie, Dr. Hingston, Mr. Harris, Dr. Huxley, Mr. Sharp, and Mr. W. Coryton. Chairman of the Committee: Mr. Paul Swain. Honorary Treasurer: Mr. T. Bulteel. Honorary Secretary: Dr. Bushnell.

It was announced that a gentleman residing at Dartmouth had offered to give a site on his property for the erection of a sanatorium.

GLASGOW.

The University Lecture was delivered on February 20th, by Professor Glaister, who spoke on the prevention of tuberculosis. He said the crusade against the disease was only likely to be efficient in the measure in which the following precautions were taken: (1) The extermination of tuberculous milch cows from herds, the milk of which was used as food of man, and especially of young children—and it ought to be generally known that boiling or sterilisation of the milk would protect our infantile population; (2) the inspection of our meat supplies, so as to prevent tuberculous meat being sold, made compulsory on all local authorities—urban and rural alike—by an Act of Parliament; (3) the education of the public in the infectivity of the expectoration of the victims of tubercle of the lungs; and (4) careful attention to the ventilation of our homes, the maintenance of good sanitary conditions in our populous places, the provision of open-air spaces, and the repression of the smoke and fog-producing nuisance.

CAMBERWELL.

At a meeting of the Camberwell Vestry, on February 22nd, Dr. Smith, on behalf of the Sewers and Sanitary Committee, submitted a series of recommendations giving notice to persons with regard to consumption and its prevention. These included:

(1) That notice be sent to the medical men of the parish, pointing out that the vestry is prepared to disinfect, free of cost, all rooms and their contents recently occupied by patients suffering from consumption; (2) that notice be sent to the persons in charge of public institutions, pointing out the importance of disinfection; (3) that notice be sent to the occupiers of houses where deaths had taken place, offering disinfection free of cost; and (4) that the cost of giving effect to the recommendations be included in the sum of £20 which the Committee had requested in connection with the circular relating to measles.

The recommendations were agreed to.

ROUMANIA.

It is proposed to form a League against tuberculosis in Roumania to educate the public as to the dangers of tuberculous infection and the means of avoiding them, and to promote the formation of sanatoria and special hospitals for sufferers from the disease.

A CENTRAL FUND FOR THE SUPERANNUATION OF POOR-LAW OFFICERS.

THE Act of 1896, "to provide for superannuation allowances to Poor-law officers and servants, and for contributions towards such allowances by such officers and servants," is, on the whole, a decided boon to those to whom its provisions apply, but a short experience of its working has already shown that on one most important point it fails to meet the requirements of those on whose behalf it was passed.

The Act provides that "every officer and servant in the service or employment of a union or parish" shall become entitled to a superannuation allowance:

1. On his becoming incapacitated by bodily or mental infirmity, or by old age.

2. On his attaining the age of 60 years, having then completed an aggregate service of 40 years.

3. On his attaining the age of 65 years.

The scale for superannuation is as follows:

Any officer or servant who has served for ten years, but less than eleven years, shall be entitled to an annual allowance equal to ten-sixtieths of the average amount of his salary, or wages, and emoluments during the five years ending on the quarter day which immediately precedes the day on which he ceases to hold his office or employment, with an addition of one-sixtieth of such average amount for every additional completed year of service until the completion of a period of service of forty years, when a maximum allowance of forty-sixtieths shall be granted.

The scale of pension is fairly liberal, and the contributions required from the officers and servants are not excessive. They are, in the case of those with less than five years' service at the passing of the Act, or appointed after the passing of the Act, 2 per cent.; those more than five and less than fifteen years, $2\frac{1}{2}$ per cent.; and those more than fifteen years, 3 per cent. of the salary or wages and emoluments for each year. Though not, as we have said, excessive, yet in some cases, especially among those in the third category, the amount will seem high.

The weak place in the Act is in the provision in Clause 11, that the officer or servant

shall be entitled, on resigning or otherwise ceasing to hold his office or employment, to receive during life, *out of the common fund of the union*, a superannuation allowance according to the scale laid down in this Act.

The words italicised throw the whole burden of each superannuation allowance on to that particular union in which the officer or servant who obtains the pension happens to end his official career. The result is that any union taking into its employ an officer or servant of long standing in other unions has, in addition to paying his salary, to take upon itself the burden of providing for the pension to which he will in a few years become entitled, while all the contributions he has hitherto made will be retained by unions which will bear no part in the cost of his superannuation allowance.

It is clear that as the working effect of this clause of the Act becomes known to the union guardians it may become a very serious bar to officers or servants of long standing who wish to enter another union. In the BRITISH MEDICAL JOURNAL of January 28th appeared a letter from "Poor-law Member," giving particulars of a case in which this clause prevented an otherwise very eligible candidate from obtaining the post of district medical officer. On his informing the guardians that he had been a Poor-law officer for fourteen years, one of them replied, "Then I shall oppose your appointment, as, if you break down next week, our Board will have to superannuate you." This was hard on the candidate, but the objection was not an unnatural one from the guardians' point of view, and it shows that the longer a man's record is the greater will be this obstacle to his obtaining an appointment under another union.

The remedy suggested by the correspondent "W. L.," who first raised this question, is that "a central fund for the superannuation of Poor-law officers" should be established. Under this arrangement the contributions of the officers and servants would not be retained by the unions in which they were made, but paid by these unions into a common fund from which all superannuation allowances would be paid, and consequently no union would be debarred by pecuniary considerations from employing any eligible officer or servant of long standing. This idea of "pooling" the contribution is already contained in the Act, for in Clause xvii it is enacted that:

> When the district of a superintendent registrar is situate in more than one union the percentage amount of his fees to be carried to the common fund of each union and the amount of any superannuation allowance or gratuity to be paid to him by the guardians of each union shall be in proportion to the rateable value of the portions of the district in each union.

An extension of this to officers or servants "who have served in different unions" would seem to suggest a means of overcoming the difficulty.

It would appear to be assumed that the superannuation contributions of the officers or servants are not, and were not, intended to be sufficient to furnish the pensions without aid from the general fund of the unions, and therefore under the suggested plan each union would have to contribute to the central fund some amount in addition to the contributions collected by it from its officers and servants. This condition, however, if found to exist need give rise to no difficulty, as the total contribution could easily be calculated and apportioned among the various unions on the basis of rateable value.

In Clause v of the Act it is enacted that in computing the amount of superannuation allowance the guardians may, in consideration of peculiar professional qualification or of special circumstances, add somewhat to the amount given in the scale. In cases in which guardians might wish to do this the contribution could still come from their own funds.

If all allowances were paid from a central fund a Board of Guardians would probably appreciate "peculiar professional qualifications and special circumstances" more keenly than under a system whereby any such appreciation had to be paid for by the union they represented. But as such additions, which are in any case limited to an increase of the time of service by ten years, can only be made with the consent of the Local Government Board, they are not likely to be too numerous. There is therefore no real objection to the scheme of a central fund, and the principle of such a combination is already contained in the Act.

WOOLWICH AND SANDHURST.—The report of the Board of Visitors of the Royal Military Academy, Woolwich, and the Royal Military College, Sandhurst, for 1898 has been issued as a parliamentary paper. The health of the Academy was good, the average daily sick being 3.86 out of an average strength of 224, giving a daily percentage of 1.72. The Board understand that the whole system of drainage has been remodelled since their last visit, and they trust with good results. Smoke and water tests are regularly employed. Some of the class rooms are quite unsuited for the work done in them both in the day and in the evening, owing to the light and ventilation being bad. In the Royal Military College the health of the cadets has been generally good. The daily average sick had been 3.47 out of an average strength of 347, giving a daily percentage of 1. Some improvements have been made in the drainage, and the medical officer reports the sanitary state of the buildings as satisfactory.

THE LONDON GOVERNMENT BILL.

OPINIONS OF MEDICAL OFFICERS OF HEALTH.

THE Bill which was introduced into the House of Commons on February 23rd by Mr. A. J. Balfour must inevitably, when it becomes law, have a great influence on the future of public health administration in London.

The text of the Bill was only issued to members of the House of Commons on Wednesday afternoon, so that there has been no time as yet for examination in detail.

The first part of the Bill deals with the delimitation of the new areas, with the constitution of the new borough councils and the mode of election. The second part sets out the powers which will belong to the new borough councils. They will inherit all those possessed by elective vestries and district Boards in the county of London as well as their liabilities. The additional powers to be transferred to the boroughs include powers under the London Building Act of 1894 with regard to licensing of wooden structures, the removal of unauthorised sky signs, and obstructions of the streets; the powers under Section xxviii of the Public Health (London) Act, 1891, of registering dairymen, and the power and duty of executing Acts relating to common lodging-houses, excepting the powers of making regulations under Section ix of the Common Lodging-house Act of 1851. The Privy Council are to make an order determining which of the powers under the London Building Act, 1894, or any amending Act, other than those already mentioned, are to be exercised by the London County Council and the borough councils respectively.

Clause 7 also relates to the additional powers and duties of borough councils, and refers to the maintenance of main roads and highways, the stopping up of streets, the enforcement of regulations with respect to dairies and milk, slaughterhouses, knackers' yards, and offensive businesses, and the alienation of lands vested in the council, for the discharge of any loan of the council, or otherwise for any purpose for which capital may be applied by the council.

The additional powers to be exercised by borough councils are further defined in a schedule. They include powers under Sections clxx, cxcvii, and cc of the London Building Act, 1894; under Sections xvii to xxv of the Metropolis Water Act, 1871, with respect to the regulation of water companies, power to adopt Part 3 of the Housing of the Working Classes Act, 1890, and power to make by-laws under Section xxiii of the Municipal Corporations Act, 1882. The third part of the Bill deals with rates and overseers, and the fourth with orders and schemes issued by commissioners approved by a committee of the Privy Council. Clause 23 makes arrangements for the transfer of existing officers, and provides against pecuniary loss which may be suffered by any such officer by reason of anything in or under this Act. The short title of the Bill is to be "The London Government Act, 1899."

We are glad to be able to publish the following observations on the scheme as explained by Mr. Balfour with which some Medical Officers of Health for metropolitan districts have been kind enough to furnish us in response to our request.

Dr. LOUIS C. PARKES, M.O.H. Chelsea, writes: From the outlines already given by Mr. Balfour in introducing this Bill to the House of Commons, it would not appear that any very momentous changes in the metropolitan public health administration will ensue, except in so far as the proposed combination of existing separate sanitary areas into a much smaller number of municipalities breaks up the existing system of administration by substituting one staff exercising powers over a large area for a number of smaller staffs each regulating the affairs of a much smaller district. This will be a step in the direction of increased uniformity, economy, and efficiency if care is exercised not to make the new areas too large and unwieldy. It is doubtful whether, having regard to efficiency of administration, any area should be incorporated with a population exceeding 250,000, but opinions are likely to differ on this point. As regards transference of powers from the London County Council to the new district authorities, there is really not very much that could be transferred with advantage, seeing that the central authority must necessarily have the control and management of what appertains to London as a whole. The supervision of common lodging-houses, of offensive trades, the licensing and supervision of cowsheds, dairies, and slaughterhouses might be transferred to the new municipalities. The question might also arise as to whether the new municipalities might not be made the authorities under the Housing of the Working Classes Act, 1890, for dealing with "unhealthy areas" and "working-class lodgings" (Parts I and III), which are now administered by the London County Council, as well as with "unhealthy dwelling-houses" (Part II), with which, at present, the vestries and district Boards are more immediately concerned.

It is proposed in the new Government Bill that the new municipalities should have the power to promote and oppose Bills in Parliament. It is very doubtful if it is wise to confer such powers on municipalities which, existing side by side, are likely to be interested very greatly in the proposals made by their neighbours, and more often in the direction of antagonism than consent. It seems difficult to avoid the inference that much money would be spent in promoting or opposing Bills in Parliament that would be better spent in other ways. The existing system by which the London County Council promotes all Bills dealing with London measures is right in principle, although no doubt capable of improvement in detail and practical application.

As regards the supposed improvement in the *personnel* of the members of the new administrative bodies that is anticipated from the establishment of mayors, town councillors, and aldermen, instead of vestrymen and members of district Boards, no doubt some good may result, if political motives exercise no greater disturbing influence upon the elections than they do at present. If aldermen are chosen for the respect which they enjoy among their neighbours as honest and sound men of business, or by reason of their knowledge of local affairs and good social standing, the one very good reason why really eligible men are so unwilling to devote their time and energies to local affairs—the worry of constantly recurring elections—will be removed. It is much to be feared, however, that political exigencies will have more to do with the election of aldermen than administrative capacity and ability. Speaking for the vestries of the better parts of London, it is only right to say that at the present time they will probably stand comparison with the generality at least of the members of provincial town councils. A very few men of deficient tone in a vestry will give an appearance of unseemliness and disorder to meetings, for which the great majority of the members are not responsible, and can do but little to rectify. To those who know the real facts, it is astonishing what a number of really good men of almost every class of life there are who, without any sort of recompense, give up valuable time, year after year, to the services of the community they live amongst, the majority of whom are absolutely indifferent to what so closely concerns them.

Dr. F. J. ALLAN, M.O.H. Strand, writes: I think that, from the speech of Mr. Balfour in introducing it, the conclusion may be drawn that this Bill is only intended to be a preliminary measure, and doubtless will in due course be followed by one extending the powers and duties of the municipalities. The County Council and the present sanitary authorities have already in conference agreed upon certain matters the carrying out of which could well be done by the local authorities, and these will probably be transferred in any case. But there are numerous other duties which must in course of time be handed over by the Council to the municipalities. Among these may be mentioned the enforcement of by-laws in regard to slaughterhouses, cowhouses, dairies, milkshops, common lodging houses, etc. At present the Council seems to consider that these can best be carried out by their own officers.

In the future there will probably be a transference of duties now devolving upon other bodies; thus it is only reasonable that the authorities dealing with the prevention of infectious disease should supervise vaccination and should have some say in the provision of hospital accommodation for the sick. At present the Asylums Board is chiefly composed of representatives of the guardians instead of the sanitary authorities, or it may be this anomalous body may be merged in some other.

Another question of importance to sanitary authorities is the method by which registration of births and deaths is effected. The areas mapped out for this purpose are coterminous with the Poor-law rather than with the sanitary districts. The Registrar-General, in taking the census, necessarily follows the same plan, and this causes considerable inconvenience to many sanitary authorities in obtaining correct and detailed information as to the distribution of population in their districts.

In some future Bill, if not in the present one, we must hope to see these anomalies rectified.

Dr. A. E. HARRIS, M.O.H. Islington, writes as follows: 1. The Bill will not affect public health administration to any appreciable extent in the large areas, which are entitled to become municipalities at once, for in most of them the execution of the Public Health Acts is as good as in any of the great provincial towns. In the case of the small areas which are about to be combined, the effect of the Act will be to encourage more activity, because it is the invariable rule throughout the country to find that the greater the municipality the better the work done, and the smaller the greater the neglect. In London the small vestries and Boards were the more negligent bodies, but when they are combined into large areas, and the sanitary administration placed in the hands of a well-paid medical officer of health, who will give his whole time to his duties, they will be certain to follow the example of the best metropolitan and provincial authorities.

2. The Bill will confer very few additional duties on the Public Health Departments of the various authorities. It is understood that the supervision of the cowsheds, dairies, and slaughterhouses will be handed over to the new authorities, and probably also the control of the common lodging houses. These are only small matters, although their proper inspection is undoubtedly of moment as regards the health of the districts. It is to be hoped, however, that the London County Council will continue to be the authority to make the by-laws for the government of these places, as otherwise each municipality throughout London will probably devise rules of its own; and then the safeguards which may be considered necessary in one place will be neglected in another; it may be in the neighbouring district.

3. The present state of affairs as regards drainage work in London is disgraceful, chiefly because no regulations have been issued by the London County Council under powers given to it by the Metropolis Management Act.

4. In the provincial towns the sanitary authorities have the charge of infectious diseases hospitals, but under the Bill I take it that the control of the Metropolitan Asylums Board Hospitals will remain as it is, which is unfortunate, because it is most desirable that the municipalities should have a voice in their management, particularly as (*a*) they will have to raise the money to meet the precepts, as (*b*) it is their constituents who will use them, and as (*c*) circumstances have altogether changed since the Metropolitan Asylums Board Hospitals were first instituted for the isolation of pauper patients. The time for the guardians to cease choosing representatives on the Metropolitan Asylums Board has surely now arrived.

Dr. EDMUND GWYNN, M.O.H., Hampstead, writes: I consider that the new Government Bill, as far as it has been outlined by Mr. Balfour, will be a distinct gain to those engaged in the sanitary administration of London. By reducing the number of councillors and providing for aldermen a better educated class of men will be attracted, and a more continuous and progressive sanitary policy be possible. At present there is a reactionary process against sanitation going on in many vestries, and a determined effort is frequently made by the Radical majority to disgust and drive out the better educated by noisy procedure and want of courtesy in debate. The amalgamation of the smaller areas has been long called for, and will be a general gain to the metropolis. Every care must be taken of the interests of the dispossessed officers, and it must be remembered that many of the medical officers of health who will lose their posts are gentlemen who gave up lucrative practices to occupy the positions they are now called upon to vacate. It is to be hoped that the Government will seize this opportunity of dealing with the general question of superannuation of existing officers.

THE NEW VACCINATION ACT IN OPERATION.

THE DUTIES AND TRIALS OF PUBLIC VACCINATORS.

A. B. C. (Public Vaccinator) writes: Having picked up several hints from your correspondence on this subject I beg leave to draw attention to a difficulty that has troubled me. If I send out the prescribed notices a large percentage of the mothers go out for the day and takes their babies with them. If I call without notice everything goes smoothly. The antiseptic arrangements give but little trouble and the lymph takes in every case, but irregularly; sometimes all vesicles being large in a few only, some three or two taking mildly. But those notices in my experience are an unmitigated nuisance. They play into the hands of those who wish to avoid vaccination and bind a busy practitioner down to an appointment which may be impossible to keep. Midwifery cases and the many emergencies of general practice pay no attention to the public vaccinator's plans made at least twenty-four hours beforehand.

D. M. S.—The Vaccination Order, 1898, Article, 3, par. 2 reads: "The number of children in respect of whom payments are to be made under paragraph *a* of this article shall be the number of children in the lists to be sent by the vaccination officer to the public vaccinator...... together with the number of children not included in such lists, but vaccinated by the public vaccinator himself." The definition of a child by the same order is, "any young person not more than 14 years of age." Putting these two together, there seems to be no other interpretation of the Order possible than the one given in the BRITISH MEDICAL JOURNAL, February 11th, p. 370.

PRIVATE PRACTITIONERS AND PUBLIC VACCINATORS.

M.B., B.C.CANTAB.—There can scarcely be a question of underselling in vaccinating a child among one's own patients at a lower fee than is payable to the public vaccinator. In the first place the private practitioner can vaccinate anywhere, the public vaccinator only at the home, in the case of a young person under 14 years of age. If the the public vaccinator vaccinates a person over 14 at his surgery or elsewhere than at the home, he gets a minimum fee of 2s. 6d., not of 5s. We question, however, whether any such comparison is necessary or even desirable. The multitude of other duties, clerical and otherwise, which the public vaccinator is called upon to perform, must be borne in mind when discussing his remuneration. Private practitioners are not under the same restrictions, and have no legal obligations under the Vaccination Acts.

A CASE OF POST-VACCINAL ERYSIPELAS AND ITS CAUSATION.

W. H., Public Vaccinator, writes: An infant, aged 8 months, was vaccinated on January 26th with Government calf lymph. The child was without sores and in perfect health. The house was sanitary, and I was assured before operating that there was no illness in or near it. The arm was washed with thymol soap solution and wiped with new lint, and absorbent lint was applied after vaccination. The instruments were sterilised before and after use. Full directions were given for the exercise of care. When inspected on February 2nd a perfect vaccination was found, there being four vesicles with no areola. I ordered dusting of the arm with flour, as I have done with all my successful vaccinations for twenty-three years. A fresh covering of lint was applied.

On the evening of February 11th I was sent for, and found both arms and chest inflamed. Three of the vesicles were dry normal scabs, one partially dry with a little suppuration at one edge. The body was dusted with flour, and a poultice of linseed was applied at the place of vaccination. Repeated and careful inquiries made on that and the following day failed to elicit any cause for the attack. I was assured that there was no knowledge of anyone suffering from sores of any kind in the house or about it. Failing absolutely to find any explanation, I was on the point of leaving the house in the belief that the vaccination must be at fault, when from the backroom door came in a boy half dressed, and carrying in his hand a dirty poultice, which had evidently been on a whole night. He was suffering from an inflamed and suppurating parotid gland. The mother, obviously annoyed at my discovery, took the poultice from the boy's hand and threw it into the fire. She then, without any washing of the hands, began to make, with linseed I had brought, a poultice for the vaccinated arm. She used the same cup in which she had made the poultice for the suppurating gland, the cup being still caked with the old linseed.

Comment is needless; but I may add that I had neither dressed nor operated on any suppurating wounds, and had not been in contact with inflamed tissues. I have vaccinated about 128 cases with Government calf lymph, and no signs of erysipelas have appeared.

THE APPOINTMENT OF VACCINATION OFFICERS.

As was anticipated, certain Boards of Guardians have failed or refused to appoint vaccination officers, the ground of refusal being that it will be the duty of these officers to carry out the functions appointed to them under the Vaccination Acts and Order, even if their Boards of Guardians should desire them not to do so. The Local Government Board appear to have decided to make the action of the Wellingborough Guardians the basis of their first legal proceedings to enforce the appointment of a vaccination officer. The district for which the officer is required is that of Higham Ferrers, where exemption certificates were recently sought for and granted in unusually large numbers. In a letter to the guardians the solicitors to the Local Government Board stated that they had received instructions to apply to the High Court of Justice for a *mandamus* commanding the guardians forthwith to appoint an officer. When this letter was considered by the guardians, they determined by a majority of 23 votes to 17 to refuse to make the appointment. The majority included all the lady guardians, while, with one exception, all the clergymen were in the minority. The result of the proceedings will be awaited with interest, especially by other Boards which have taken up a similar attitude.

LITERARY NOTES.

MESSRS. SMITH ELDER AND CO. announce as for immediate publication the Hunterian Oration on Hunter as the Founder of Scientific Surgery, delivered by Sir William Mac Cormac in theatre of the Royal College of Surgeons in the presence of H.R.H. the Prince of Wales on February 14th.

Messrs. Longmans, Green, and Co. are publishing this week a volume entitled *The London Water Supply*, by Arthur Shadwell, M.A., M.B.Oxon. The book consists of eleven chapters and a series of appendices giving extracts from Acts of Parliament and official reports. The writer holds a brief for the water companies, and his advocacy of his clients is so warm that it must bid the prudent pause. However, it is well to have even one side of the case stated in a handy form.

Dr. Philipp Karl Lange, of Potsdam, a retired medical officer of the German army, who has just died, was well known as the author (under the pseudonym of "Philipp Galen") of a number of novels. His writings, without being remarkable for depth of thought, were of a high order of literary merit, and were very popular in Germany.

Dr. A. Steuermann, who in October, 1898, took his doctor's degree in the Medical Faculty of Jassy, with a thesis on the treatment of epithelial cancer by arsenical lotion, has gained for himself a high place in Roumanian literature by his verses. He is looked upon as one of the best poets of the younger generation in Roumania.

Reference was made in this column not long ago to the *Index to the Times* by Miss Bailey, which Messrs. Eyre and Spottiswoode proposed to publish. We have received the January number of the *Index*, and from actual testing we can say that Miss Bailey's execution of her troublesome task leaves nothing to be desired. Taking a few of the matters that are now prominently before the mind of the profession, we find under the head of "Medical Practitioners" references to the following cases: "Franks *v.* Hargreaves (Negligence), 13th, 5 (4); Hunter *v.* Clare (Falsely using the title of Physician), 25th, 13 (2); Nugent, E. J., alias Rowland—Reg. *v.* (Negligence and Perjury), 14th, 4 (6), 16th, 14 (5). Under "Tuberculosis" we find: "Africa, South, Warning to Consumptive Immigrants (Correspondence), 17th, 10 (6); 28th, 12 (3). Animals, Tuberculosis in: Hunting, Mr., on, 27th, 13 (5); Penberthey (*sic*), Professor, on, 31st, 7 (6). *British Dairy Farmers' Association, Journal of*, Tuberculosis in Cattle, 16th, 4 (6). Butter as Source of Danger (Letter), 17th, 10 (6). Compulsory Notification: Incorporated Society of Medical Officers of Health Meeting, 14th, 8 (6). Correspondence, 3rd, 13 (1); 7th, 10 (3); 13th, 13 (4). Liverpool Consumption Hospital Reconstruction (Willox-Hartley Donation), 10th, 8 (4). Londonderry, Marquis of, on, 26th, 4 (1). Meat Supply (Letter), 26th, 2 (6). Milk, 23rd, 6 (6). Prince of Wales and Social Democratic Federation, 17th, 6 (4). St. Saviour's (Southwark) Board of Guardians: Notice of Resolution, 6th, 10 (4). Sanatoria for in Germany (Meeting), 10th, 3 (6)." These extracts will show how extremely useful Miss Bailey's *Index to the Times* is likely to be not only to journalists, officials, and public men, but to everyone who follows with intelligent interest the "movement" of the day in any particular direction.

Mr. Kumagusu Minakata writes in *Nature*, February 16th, to the following effect:

> In the *Encyclopædia Britannica*, ninth edition, vol. xix, p. 168, Dr. J. F. Payne writes: It is remarkable that of late years reports have come of the occurrence of oriental plague in China. It has been observed in the province of Yunnan since 1871...... It appears to be endemic, though there are rumours of its having been brought from Burmah and become more noticeable after the suppression of rebellion in that province (1872). However, the following passage I have lately found in Hung Liang Kih's *Peh-Kiang-Shi-Hwa* (British Museum copy, 15,316, *a*, tome iv, fol. 4, *b*) bears witness to the much earlier occurrence of the pest in Yunnan, inasmuch as the author, who was born in 1736, and died in 1809, speaks of his contemporary dead thereby: "Shi Rau-Nan, the son of Shi Fan, now the Governor of Wang-Kiang, was notorious for his (poetic) gift, and was only 36 years old when he died....... Then, in Cháu-Chau (in Yunnan) it happened that in day time strange rats appeared in the houses, and lying down on the ground, perished with blood spitting. There was not a man who escaped the instantaneous death after being infected with the miasma. Tau-Nan composed thereon a poem entitled Death of Rats, the masterpiece of his; and a few days after he himself died from this 'queer rat epidemic.'"

SIR J. STIRLING MAXWELL, Bart., M.P., will preside at the festival dinner of University College Hospital on June 15th.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1899.

SUBSCRIPTIONS to the Association for 1899 became due on January 1st, 1899. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, MARCH 4TH, 1899.

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THE LONDON GOVERNMENT BILL.

THE reception accorded to the lucid speech in which Mr. Balfour introduced his measure of local government for London was such as would appear to ensure the safety of the Bill, although it will doubtless be keenly criticised and will probably meet with considerable opposition from the Liberal party. Still, it seems probable that the Bill will be carried in some form, and that November, 1900, will therefore be an epoch in the administration of the metropolis, which will begin the new century with some thirty or forty new municipalities each with its mayor, aldermen, and town councillors. The Bill, as usual with modern domestic legislation, is a compromise. The privileges of the City, the status of the London County Council, the huge spending possibilities of the School Board and the Asylums Board are all left intact. The new municipalities, which will be created either out of the existing areas or by the coalescence of smaller areas, will have populations ranging from 100,000 to 400,000. The various districts will be governed by a maximum number of six dozen councillors and aldermen, and from the aldermen will be elected a mayor. By the courtesy of several metropolitan medical officers of health we are enabled to publish in another column some notes which will show the first impression produced by Mr. Balfour's own account of his scheme on men of large experience in public health administration.

Dr. Parkes's testimony to the fact that many good and competent men are even now attracted to vestry work will be read with satisfaction, and will be an encouragement to those who believe that the formation of municipalities will have the effect of inducing a larger proportion of men of character and education to take their share in municipal work in London, and of infusing into it some of the larger public spirit which is now lacking. Probably the opinion expressed by Dr. Harris, of Islington, that the larger the municipality the better the work done is as a general proposition correct. But the new municipalities will not possess full municipal powers, and it would be too sanguine to hope that even Greater Westminster, which will be the chief of the new bodies, will attain the dignity of such corporations as those of Manchester, Liverpool, Leeds, or Glasgow, or indeed of any of the other large cities.

The new corporations are to have the right to promote and to oppose Bills in Parliament, a power which may well excite some apprehensions in the breasts of ratepayers, for the reasons indicated by Dr. Parkes. On the other hand, as he also points out, the formation of large municipalities by the combination of existing parishes will make for economy, since it will lead to the substitution of one staff for the large area in place of separate staffs for each small area. It is proposed also to give to the new bodies the powers agreed upon between the vestries and the London County Council, including the supervision of cowsheds, dairies, and slaughterhouses, and of common lodging houses. It would be well if this delegation of duties could be carried further in certain directions, provided that the right of framing the by-laws is reserved to the Council so as to ensure uniformity of administration. Such reservation appears to be contemplated by the framers of the Bill.

There seems to be no intention to deal with the constitution of the Metropolitan Asylums Board, which undoubtedly stands in need of reform to bring it into line with the new conditions of municipal life which have arisen since it came into existence. There can be no doubt, however, that the new corporations as soon as they get to work will desire to take a part in controlling the work of isolating persons who may be found to be suffering from infectious disease within their areas. It seems clear, therefore, that the Board must be reconstituted in the near future, and it is to be regretted that the matter cannot be taken in hand as a part of this year's Bill.

It is inevitable that such a change as is contemplated in the areas of a number of districts should affect profoundly the position of many of the metropolitan medical officers of health, but compensation for loss of office is provided for in the Bill, and we trust that if any amendments are introduced with regard to this part of the question they will tend to liberality rather than parsimony, and will permit any special circumstance which may exist to be taken into consideration.

The scheme is probably as good as could be carried into law under present circumstances. In some cases the areas might have been made still larger with advantage, and the omission of the City is open to criticism. When the Bill has been studied as a whole there will, no doubt, be found many details which will require careful consideration. Nevertheless, the scheme of the Bill will probably tend to greater efficiency of local government, and sanitary questions will be looked upon from a broader and higher standpoint. The proposed measure is a development rather than a revolution, and we hope and believe that its influence will be in the direction at once of economy and of efficiency in local administration.

MEDICAL OFFICERS FOR TWO ARMY CORPS.

WE are bound to express disappointment at the Under-Secretary of State for War's reply to Sir Walter Foster's question as to the source from which medical officers can be obtained for the two army corps, which are said, on the highest authority, to be always "complete in every respect" for immediate mobilisation and embarkation.

The question was certainly not asked in any captious spirit, but solely on account of its direct bearing upon the efficiency, or otherwise, of the present establishment of medical officers of the army, which, according to Lord Wolseley himself, in his report of the late autumn manœuvres (paragraph 12), "requires augmentation."

The Under-Secretary appeared mainly satisfied with correcting the figures of his interrogator as to the number of medical officers and men employed at the manœuvres, which he stated was not 23 and 215, but 68 and 312. The former numbers were taken from Appendix XI of Lord Wolseley's report; apparently they represent only those present at the review, according to the field state on September 8th, and do not include all those actually employed at the manœuvres.

A careful enumeration of the Medical Service mentioned in various parts of the report appears to show that, including the principal medical officers and their staff, there were 54 officers (including quartermasters ?) and 274 men, not 68 and 312 as given by Mr. Wyndham. We cannot reconcile the discrepancies in these figures, but the matter is really of very small moment beside the larger issue involved in the more important part of the question.

The Under-Secretary is reported to have said that the 224 officers required for two army corps can be provided from existing home establishments; and the vacancies thereby created "supplied by civilian practitioners." We do not doubt the literal accuracy of this statement; but it confirms the misgivings which many persons have as to the ability of the present attenuated army medical service to cope with a serious foreign war.

The question turns upon the efficiency, or otherwise, of "existing home establishments." Taking, therefore, 224 as the number of officers of the Royal Army Medical Corps required in the first field line of two army corps, there would still have to be provided a sufficient staff for the lines of communications, and for hospitals at the base. The numbers for this duty would vary according to circumstances, but could hardly be less than 50, or perhaps nearer double that number. On the most moderate computation, at least 270 medical officers would be required for two army corps proceeding on active service. How is that number to be got together?

According to the Estimates for the ensuing financial year, the number of medical officers (exclusive of India) is, in round numbers, about 500. Nearly 200 officers are usually in the colonies and in our foreign garrisons; and about 40 in various staff and other appointments, and with the regiments of Guards. The number on full pay available for mobilisation is under 300, to which about 60 may be added, representing retired officers "liable to recall," who might probably be found fit for foreign service. With such an establishment, after the demands of two army corps had been met, a poor remnant under 100 would be all that would be left to carry on a great amount of important duty at home, as well as to form a reserve to meet the inevitable casualties which would at once set in with an army in the field, and also to furnish reliefs for India and for foreign garrisons.

This is indeed an alarming prospect, which surely no amount of "civilian" aid could meet. Even if such aid could be obtained, is it desirable that it should be relied on? Those who think so cannot surely have read the remarks of the Surgeon-General of the United States Army, embodied in General Miles's report on the late war with Spain. It is therein stated that the number of regular medical officers allowed to the army being inadequate, even in peace times, it was necessary on the assembling of the army straightway to employ "650 contract surgeons," to whom "were assigned responsible positions," for which, through lack of special knowledge, training and discipline, they were not fitted. Not unnaturally they failed, and were afterwards unjustly "charged with incapacity." To this scratch assemblage of "contract surgeons" hastily brought together and entrusted with special duties, with which they could not but be imperfectly acquainted, much of the sickness and mortality in the American army is frankly ascribed. The experience of an improvised medical service thus obtained was truly said to have been "dearly bought."

We, too, had a similar costly experience in the Crimea, and it is the dread of a repetition of any such folly, as in that war, which prompts such questions as these concerning the supply of medical officers for two army corps. It is on such broad grounds, we think, that Sir Walter Foster's question did not meet with a satisfactory or reassuring reply.

THE GOVERNMENT AND REVACCINATION.

In reply to a question in the House of Commons, Mr. Balfour has stated that the Government do not propose to introduce any legislation regarding vaccination during the present session. In reply to another question Mr. Chaplin has told Mr. Bartley that persons over 10 years of age who have not been revaccinated within ten years will be revaccinated free of charge on application to the public vaccinator, and will receive from him a certificate of revaccination.

Before commenting on Mr. Balfour's statement it is necessary to note that Mr. Chaplin's reply practically means that as regards revaccination by public vaccinators matters stand pretty much as they did before. Under the General Order of February, 1888, public vaccinators, provided they could afford the lymph without interfering with their primary vaccinations, were empowered to revaccinate any applicant who "has attained the age of 12 years, or in case there be any immediate danger of small-pox the age of 10 years, and has not before been successfully revaccinated." For such revaccinations the fee payable by the guardians to the public vaccinators was fixed by the Act of 1867 at two-thirds of the fee for successful primary vaccinations. This restriction as to fees has been abolished by the Act of 1898, and the age restriction has been altered from 12 years to 10. That is all the difference between the old position and the new, excepting, of course, in the provisions for the abolition of public stations, and the use of Government lymph, and so forth, which apply alike to primary vaccination and revaccination.

Mr. Chaplin, in his reply to Mr. Bartley, neither conveyed nor intended to convey any impression that he was doing more for revaccination than is above indicated; but to those who do not know the facts it is well to point out exactly how matters stand. Excepting in the public services, we are at present under a system of absolutely voluntary revaccination. When the age for revaccination comes there is no statutory duty laid on anyone to call parental attention to the subject, nor does the law bring to bear on anyone the very slightest pressure towards the performance of a duty which cannot be neglected without involving very serious risk of illness and disfigurement and death. The medical profession has not asked for compulsory revaccination, but it has asked, and does ask, for something more than this practical legislative indifference regarding it. The Government and Parliament have accepted the conclusions of the medical profession and of the Royal Commission—have accepted what is indeed the teaching of a century of worldwide experience—regarding the value and necessity of vaccination and revaccination if small-pox is to be prevented or controlled in this country. But at the same time they have determined rather to let small-pox come than to insist even on such a degree of legislative pressure as would be involved in the infliction of single penalties. As a result they have passed the conscience clause. That clause, owing to its having been adopted, not as a matter of principle in the original conception of the Bill, but only under pressure near the fag end of the session, when there was no time for thinking out or elaborating the details of the contemplated procedure, has failed to provide any proper test between persistent objection and mere parental laziness. Mr. Chaplin has declared that he will not revise it this session because it has not been in force long enough.

The Government are under no sort of promise, whatever may be their moral obligation, to revise the conscience clause, and the medical profession have at least the satisfaction that their conscience is clear on the subject, and that Parliament must bear the responsibility for its own bad work; but as concerns revaccination, Parliament, and especially Ministers, are in a different position. No one will deny that primary vaccination and revaccination should stand or fall together. If the one is bad then the other is bad; but in legislating as it has done for primary vaccination, the Legislature has acknowledged its belief that vaccination is good, and that it ought to be promoted and encouraged, and this acknowledgment cannot but extend to and include revaccination. The same law, the same pressure, the same good, bad, or indifferent conscience clause should apply to both. Government and Parliament are indeed alike under a moral obligation to legislate for revaccination.

In the case of the Government, however, there is much more than a moral obligation. There is the fact that last session they took advantage of the strong feeling which exists in favour of a Revaccination Bill to force their conscience clause on an unwilling and rebellious House of Lords. They led Lord Lister to accept and to express the "confident hope" that such a Bill would be introduced this session, and they set up Lord Harris to support him in that attitude, and through them they induced the Upper House to swallow the obnoxious clause. In a previous article[1] we quoted from the speeches of the two noble lords. What has happened this session everyone knows. The Speech from the Throne contained not a word on the subject. In the debates on the address Ministers made no reference to it. In reply to a question, Mr. Balfour curtly stated, without explanation or apology, that the Government intend to introduce no legislation on the subject of vaccination this session. We are bound to say that in giving a merely categorical answer he has acted discreetly. Explanation would have made matters only worse. If the Government had seriously considered the question as they definitely promised, and if they had found good reasons for determining to do nothing in the matter, they should and would most certainly have taken the earliest opportunity of stating their reasons, and of trying to reconcile the public and the profession to the disappointment.

Medical men, looking to the effects of the maladministration of Section 11 of last year's Act, may ask if it makes any great difference whether revaccination is legislated for in the same fashion or is left on its present wholly voluntary footing. Such a question could not, of course, be put by Mr. Balfour, for in putting it he would be admitting that the conscience clause is a failure. As a matter of fact it does make a great difference. In the first place it is most important to establish the legislative principle that primary vaccination and revaccination shall be treated exactly alike as subjects of national concern. In the second place it is most important that the question of acceptance or rejection of vaccination for children before leaving school shall be definitely brought before all parents, and that they shall be required either to procure vaccination for their offspring or to register anew their formal rejection of the offer made by the State.

These two points are well worth fighting for, and we would call on the medical profession, as a whole and as individuals, and on every member of the public who realises what small-pox is and what vaccination does to endeavour even yet to influence the Government to introduce and pass a Revaccination Bill, and so help to protect the public against the ever-increasing danger of epidemic small-pox.

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QUINQUENNIAL CENSUS ENUMERATIONS.

A LETTER which is published at another page draws attention to the desirability of an amendment of the Census Bill in favour of a quinquennial instead of a decennial census. The subject is one of real importance in the interest of public health, for accurate vital statistics are possible only where a fairly accurate estimate of population can be made. Experience has shown that the assumption that the same rate of increase which held good in the preceding will continue in the current decennium leads in many instances to gross errors. Added to this, the steadily declining birth-rate increases the difficulty of arriving at any correct estimate of population in the later years of an intercensal period. During 1811-21 the decennial increase of the English population amounted to 18.1 per cent.; in 1881-91 it had fallen to 11.6 per cent. Taking local instances, at the census of 1891 the population of Salford was found to be 20.9 per cent. below, that of Liverpool 16.6 per cent. below, and that of Nottingham 15.6 per cent. below the respective estimates based on the rate of increase in 1871-81; while at the opposite extreme the population of Newcastle-upon-Tyne was 13.6 per cent. above, and of Portsmouth 10.9 per cent. above the estimate. The proper remedy consists in more frequent enumerations of population. The only valid argument against a quinquennial census appears to be that of expense. The census of 1881 for Great Britain and Ireland cost about 5 guineas per 1,000 of enumerated population. The expense of each enumeration would doubtless be diminished if their frequency was increased. If not, the value of the results obtained would abundantly justify the double expenditure on the present basis. The Departmental Committee, which reported in 1890, recommended that "the number of the population and its distribution as regards age and sex be ascertained midway between the decennial periods at which a full census is taken." This recommendation was only acted on in 1896 for London, on the initiative of the London County Council; and in this case the value of the intermediate census was diminished by the absence of information as to the age and sex of the population. Now is the opportunity for the Legislature to place the matter on a sound basis by establishing a permanent Census Department in connection with the General Register Office, and by providing in the Census Bill for 1901 for a quinquennial census.

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[1] BRITISH MEDICAL JOURNAL, February 11th, p. 357.

THE GENERAL MEDICAL COUNCIL.

THREE of the Committees of the General Medical Council have held meetings this week—namely, the Executive, the Penal Cases, and the Dental Committees. A large number of suggestions have been made by the various licensing bodies upon the subject of the disciplinary Bill to which we have recently alluded. As the Privy Council declines to take active steps to further any Bill which does not meet with the tolerably unanimous support of these bodies, it does not seem probable that any immediate steps will be taken to introduce it. While the majority of the licensing bodies do not appear to be opposed to the introduction of some such measure, it is doubtful whether the numerous suggestions made are capable of reconciliation without practically emasculating the Bill. This is the first occasion upon which any part of the General Medical Council has met since the termination of the Hunter trial. It would be premature to attempt to forecast the line of action—we had almost written of defence—which will be adopted, but it is hoped that wiser counsels will prevail, and that no attempt will be made to justify every detail of its proceedings. We do not wish to prejudge a matter of which all the details are not known, but from the facts which have already been published, it seems impossible to doubt that, to say the least, an error of policy was committed in undertaking the original prosecution. A frank admission that a mistake has been made would be the wisest and most dignified course for the Penal Cases Committee to adopt, and if endorsed by the Council—as we can hardly doubt would be the case—it would probably not be without effect in inducing the various licensing bodies to entrust it with larger disciplinary powers, which at present, to all appearances, they seem somewhat unwilling to do.

INFLUENZA AND ITS PREVENTION.

ALTHOUGH the mortality from influenza and its collateral affections fortunately falls far short of that recorded in the great epidemic, the situation is not free from anxiety. There was a further marked increase last week in the fatal prevalence of influenza in the metropolis. The deaths attributed directly to this disease, which had been 22, 50, and 74 in the three preceding weeks, further rose to 113 during the week ending Saturday last, February 25th, and exceeded the number registered in any week since March, 1895. Of these 113 fatal cases, 35 were of persons under 40 years, and 28 of persons aged between 40 and 60 years; while as many as 50, or nearly a half of the total number, were of persons aged upwards of 60 years, and no fewer than 21 of these were of persons above 80 years of age. It is probable that even now many people fail to realise the fact that influenza is a highly contagious disorder, and one of the most virulent of the acute specific diseases. When cholera breaks out in a community, every possible precaution is taken to prevent its spread, but in the case of influenza little or nothing is done, and the patient is often unwilling to sacrifice his social engagements. It is the reckless exposure of the infected which makes the disease so difficult to eradicate. Everyone is exposed more or less to the danger of being invaded by the bacillus, and it is difficult to devise prophylactic measures on which absolute reliance can be placed. Much, however, may be done by attention to a few simple rules. When a person is ill with influenza, it is better not to visit him, or, if a visit is imperative, it is advisable to avoid unnecessary personal contact. After the interview, the hands should be thoroughly washed in an antiseptic solution, and the outer garments should be aired by being exposed to a current of fresh air, or, better still, to the direct rays of the sun. The condition of the general health of those exposed to infection should be maintained by plenty of outdoor exercise, by good food, and by the avoidance of indulgence in alcohol. On the onset of the initial symptoms the patient should remain in bed, and should at once obtain medical advice. No reliance should be placed on popular remedies, for the complications are so grave that the best possible treatment is required. All articles such as sheets and pockethandkerchiefs, which have been used in the sick room, should be put into a vessel containing an efficient disinfectant. That recommended by the Local Government Board is made by mixing half an ounce of corrosive sublimate, 1 fluid ounce of hydrochloric acid, and 5 gr. of commercial aniline blue, in 3 gallons (a bucketful) of water. It is poisonous, but it is a good disinfectant, and it is cheap. Articles after being allowed to stand for some time in this mixture should be rinsed in clear water for three or four hours before being sent to the wash. Clothing may be disinfected in a suitable disinfecting apparatus by heat, and local sanitary authorities should be urged to give notice of their willingness to undertake this duty. After the patient has vacated his room the furniture should be removed and cleansed, and the room disinfected, perhaps preferably with formalin. These may seem unnecessary precautions, but the disease is so infectious and its consequences so far-reaching, that it is wise to treat its risks seriously.

MAXIMS OR MICROBES?

WE would not underrate the courage that leads a man to seek the bubble reputation even in the cannon's mouth. But there can be no doubt that a higher degree, as well as a finer quality, of courage is needed to tie an artery under fire than to lead a cavalry charge. Mere excitement or "Berserkir rage," or even the frenzy of fear, will make a man do deeds the thought of which in cold blood would make him turn pale. But "Dutch courage," whether born of grog or of the thirst for glory, avails nothing to the surgeon when called upon to dress wounds with the enemy's bullets whistling about his ears. We have often wondered that Kipling, who has noted every other aspect of military life, has not touched into one or other of his battle pictures the doctor at his work of mercy amid the storm of battle. And the medical officer has to face other dangers just as appalling that would unnerve most of his combatant comrades. This phase of medical duty has lately been well described by Dr. Nicholas Senn, who, it may be remembered, did good service in the late war between Spain and the United States. In response to a toast at a banquet of the Inter-State National Guard Association the distinguished Chicago surgeon said: "Can you give me a more striking example of genuine patriotism and heroism than the twenty-four hours' work performed by our disciple of Æsculapius on the field of battle? If you cannot, I can. It is the same Æsculapian away from the bloody field in the fever camp. It requires courage to stand up in a rain of bullets and in an atmosphere torn asunder every few moments by shot and shell but it requires more courage to enter the silent fever camp, with its myriads of invisible foes. The song of the bullet is sweet music compared with the silent, invisible microbes that cause yellow fever, typhoid fever, malaria, dysentery, and camp diarrhœa. It is a privilege to die a glorious death on the battlefield; no such halo of glory surrounds the deathbed in the fever hospital. It is here that the greatest deeds of heroism are witnessed. It is here where the true manly courage of our Æsculapian hero is put to the severest tests. Let me ask you a plain simple question to test the correctness of the assertions I have made—a question the significance of which, I fear, is not fully understood. If left to choose for yourself, would you not be more willing to engage in a battle than to live and work in a camp filled with typhoid or yellow fever patients? It would take me, or any other disciple of Æsculapius, not long to decide in favour of the battlefield." We agree with Professor Senn, but, as he says, the significance of his simple question is not fully understood by those who are not disciples of Æsculapius. If we were to put the question in another way, as, for instance, Which would you the more readily face, Maxims or microbes? most people would probably choose the latter. There is a grim materiality about the Maxims, and their effect is immediate and visible. But, to the eye of scientific faith, the microbes are not less real, and they are certainly not less deadly; moreover, they have to be faced day and night, for weeks and months, instead for a few breathless minutes. Decidedly the "non-combatant" is the greater hero.

MR. KIPLING'S ILLNESS.

MR. RUDYARD KIPLING'S illness, which has been watched during the past week with so much anxiety by the whole English-speaking world, is clearly not a typical attack of ordinary acute pneumonia, but appears to be due to that irregular form of pneumonia with which we have become familiar during the numerous recent epidemics of influenza. Instead of the rapid consolidation of a large part of one lung—or, indeed, of both lungs—which quickly reaches a maximum and subsequently passes through well-recognised phases, there is a more gradual and irregular spread through one or both lungs, the inflammation creeping from area to area, so that it may be resolving in one part while yet only in the early stage in another. Though this form has dangers of its own, yet it is possible to feel more hopeful of the ultimate result than was the case when it was understood that Mr. Kipling was suffering from double pneumonia of the typical kind. The chief danger now is the exhausting effect of the prolonged fever, and struggle for life imperilled by the blocking of the lungs and the great strain put upon the heart. Mr. Kipling, though a man of apparently frail physique, has a sound constitution, and it is in such emergencies as that which he is now encountering with so much courage that, as he himself said of the hero of one of the stories in his last volume, clean living tells.

AGUINALDO AS A MEDICAL STUDENT.

THERE have been not a few instances in recent years of members of the medical profession who have played a considerable part in other spheres of activity, notably in exploration, in colonisation, in imperial diplomacy, and in the government of savage or semicivilised races. The names of Sir John Kirk, Sir George Robertson, Dr. Jameson, Sir Halliday Macartney, Sir William MacGregor, the late Sir Rutherford Alcock, and David Livingstone rise at once to the mind, while the career of Mungo Park shows that like men were not wanting in earlier generations. Among Frenchmen the most notable example is, perhaps, M. Clémenceau, who has been a political leader for a quarter of a century. M. de Lanessan, formerly Governor of Cochin China, is a Doctor of Medicine, and Paul Bert was Governor of Tonquin. It appears that medicine may also have the perhaps doubtful honour of at least partly claiming Aguinaldo, the Filipino patriot. His face and features, and the conformation of his skull, are of European type, and he is believed to be the son of a Spaniard, though there is a conflict of testimony as to whether the honour of his paternity belongs to a general or a Jesuit. He was born at Cavite, and was in boyhood in the service of a priest, who gave him some education. At the age of 15 he entered the medical department of the Pontifical University of Manila, where he worked under Professors Nalda and Buitrago. He afterwards studied at the Victoria College, Hong Kong. He was remarked for his ability when a student, but nothing else is known of his college career. We are, therefore, unable to say positively whether he was ever pronounced *dignus entrare in nostro docto corpore*.

METROPOLITAN IMBECILE CHILDREN.

AT the last meeting of the Metropolitan Asylums Board, it was ultimately resolved that in future a classification of the imbecile children under the care of the Board should be made into two groups—improvable and non-improvable. With a view to such classification a central receiving house is to be established for new cases, and those considered improvable are to be drafted to probationary wards attached to a training school to be set up apart from the Darenth Asylum. Further, it was resolved that after undergoing such training as might be in each case possible, the patients should, on arriving at adult age, be transferred to a colony to be employed in the industrial occupations for which they were suited. It was also agreed to ask for legislation to raise the statutory limit for school life from 16 to 21. These resolutions will constitute a satisfactory basis for the settlement of the long-standing controversy with regard to the Darenth Schools. It is most important, in the first place, that the improvable should be separated from the unimprovable children, as is intended to be done by means of primary selection and of probationary wards; and, secondly, that the industrial training should be utilised as is contemplated under the colony system. It will be necessary, however, to guard the surroundings of the children and colonists. If (as has been stated) there is an idea of placing them on an estate upon which blocks for the chronic infirm from metropolitan workhouses are also erected, it must be observed that such environment is not suitable for children at the plastic age, nor even for weak-minded workers of adult years. There can be no doubt as to the wisdom of seeking power to raise the age at which under Local Government Board regulations the imbecile child becomes (in theory) an adult. Nothing can be more absurd than to place the unfortunate whose physical and mental development have been arrested on the same level in this respect with the able-bodied and active-minded pauper child.

AN IMPROVEMENT IN *X*-RAY TECHNIQUE.

WE have had an opportunity of witnessing the results obtained with a new "break" for the induction coil which has been installed in the *x*-ray department of Charing Cross Hospital, under the direction of Dr. Mackenzie Davidson. The effect as we observed it in screen work was exceedingly good, the light being steady and the definition very fine. The new device has been introduced by Dr. Wehnelt, of Charlottenburg.[1] It has been known for a long time that a strong current passed through an electrolyte will become intermittent or interrupted, and produce a note—sometimes a shrill one. It occurred to Dr. Wehnelt to use this as an "electrolytic break" for the induction coil. The apparatus consists of a cell filled with sulphuric acid and water, the specific gravity of the mixture being about 1205. A sheet of platinum foil (such as is used in a Groves cell) is the cathode or negative plate in the cell. The anode or positive consists of a small platinum wire fused into the end of a closed glass tube, and contact inside the tube is made by a little mercury and a copper wire dipping into it. This is immersed in the fluid. This cell is interposed between a 100-volt current and the primary terminals of an induction coil. When the current is turned on violent electrolysis takes place, a more or less shrill note is produced according to the size of the platinum point, and a thick ribbon-like discharge is produced at the secondary terminals. The method promises to be very useful. The Crookes tube is brilliantly and steadily illuminated and the fluorescent screen gives such an effect as is seen when a large Wimshurst machine excites the tube, but it is more brilliant, and photographic exposures are greatly shortened; the difficulty will be to get tubes to stand the current, and already the anodes of several tubes have been melted. Osmium is not disintegrated, but soon becomes white hot, and the vacuum alters rapidly under the intense bombardment. The primary of the coil used at Charing Cross Hospital took from 3 to 10 amperes, according to the size of the platinum wire used in the cell. No "hammer" or condenser is required, and a point of importance seems to be that this "electrolytic break" is very sensitive to any change of resistance in the secondary discharge, and reacts accordingly without the sudden jerks usual with the "hammer break."

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[1] *Electrotechnische Zeitschrift*, January 26th, 1899.

THE PRINCE OF WALES'S HOSPITAL FUND.

AT the meeting held on February 28th at Marlborough House, Lord Rothschild, the Treasurer of the Prince of Wales's Hospital Fund, had to report that the receipts of the fund for 1898 had been much smaller than for 1897, though they reached the respectable total of £39,270. As was pointed out, 1897 was the Jubilee year, and from that cause and from the fact that at the initiation of a scheme of this sort a good many large subscriptions are received which are not likely to be repeated, a falling off was perhaps only to be expected, but a tone of disappointment pervades the utterances of the speakers on the occasion, and it is apparent that the high expectations entertained have not so far been realised. The names of those who take an active part in the administration of the fund undoubtedly command public confidence, and are an assurance that the moneys subscribed will be well used; yet the subscriptions do not pour in as had been anticipated, and the Chairman of the Executive Committee, in expressing a hope that the fund may come in for a share of the large amount of legacies bequeathed annually for charitable purposes, tells us by implication that at present it has not. Why is this? No one can say with certainty, but a perusal of the speeches affords material upon which to hazard conjectures. The average donor, say of a sum sufficient to make him a life governor of a hospital, very willingly and with satisfaction to himself, bestows it upon an institution with which in some way or other he feels himself to be in touch, but he may hesitate to give the same sum to be distributed he knows not where, notwithstanding that he might have the fullest confidence that it would be well bestowed; the element of personal interest is gone, and he feels that his contribution is but a drop in the ocean. Moreover, the man who makes a considerable donation or legacy may not unnaturally prefer that some hospital of which he knows something should get it intact, without the 7 per cent. deduction which is the present cost of administration of the fund. There is another question of policy touched upon in the report; it is said that His Royal Highness the President does not desire to hoard money unduly by capitalisation, but at the same time we are told that in order to ensure permanent utility to the fund it is desirable to increase the invested capital up to a large amount. It is to be feared that the policy of forming a large capital, only the interest of which will be available for the hospitals, is not one which will attract subscriptions. Many people have the feeling that each generation should bear its own burdens in such matters as these; and most donors of, say £100, would prefer the feeling that their money was being spent for the purpose to which they intended it at once, or at all events was being held by some hospital against its hour of necessity, to the prospect that £2 5s. a year would be spent in the desired direction for an indefinitely long period. Hence, although it would appear that only some £4,000 has this year been added to capital, we think that, at all events in the present state of the income of the fund, even this would have been better spent if the popularity of the movement is to be studied. The scheme of accumulating a great fund the interest of which should be adequate to place our hospitals beyond the pinch of poverty was a grand one, but it seems that at present it cannot be realised. The managers of the fund would do well to accept the position fully, and unless and until they can place the whole upon an absolutely different scale, regard themselves as the collectors of moneys for immediate use. In this way they may best hope to carry out their expressed wish that they may attract the contributions of the lower middle and working classes, who are not very likely to subscribe to a trust which is for the future rather than for the present. At a meeting at Marlborough House on March 1st, under the presidency of the Prince of Wales, it was determined to organise a League of Mercy to promote the welfare of the fund, especially by encouraging personal services on the part of large numbers. In connection with the League an Order of Mercy will be established which will be conferred as a reward for gratuitous personal services rendered in the relief of sickness, suffering, poverty, or distress.

TUBERCULOUS PATIENTS UNDER THE POOR-LAW.

WE stated recently that a conference of Poor-law guardians representing the three large unions of Liverpool was about to be held at the invitation of the West Derby Union. The Conference took place last week, and it was unanimously decided to erect a sanatorium in some suitable locality for the treatment of early cases of tuberculosis among the poor. A complete scheme has been drawn up by Dr. Nathan Raw, medical superintendent of Mill Road Infirmary, which has regard to the treatment of early cases in sanatoria, to the isolation of chronic and hopeless cases in separate wards of Poor-law infirmaries, and to the necessary precautions to prevent the spread of the disease. This is, we believe, the first instance in which Poor-law guardians have taken this enlightened view of their duties with regard to the disease; and it is sincerely to be hoped that the good example will be followed by other Boards of Guardians in this country. Already, indeed, the matter is under consideration at other places. Thus, the Halifax Board of Guardians at their last meeting, after considering a report presented last November by Dr. Dolan, the medical officer, resolved to make arrangements for a conference with representatives of adjoining unions to consider the treatment of consumptive cases in workhouses, and to discuss the question whether such cases should be treated otherwise than in workhouses.

HOSPITAL RATING IN LONDON.

AT the last meeting of the London County Council Mr. Porter moved a resolution expressing the opinion that it was expedient that some of the hospitals in London should be exempted from the payment of rates, and directing the Local Government and Taxation Committee to make a report upon the subject. He mentioned that the principal London hospitals paid as much as £8,000 to £9,000 a year in rates, and pointed out that that amount, if remitted would enable them to open at least 180 of the 400 beds at present closed for want of funds. Mr. Lawson seconded the motion, but said that an Act of Parliament would be necessary. Dr. W. J. Collins urged that hospitals if not rate-aided should at least be unrated, and that even if it could not be proved that the ratepayers' pocket was saved by hospitals, at least the ratepayers should leave the hospital pocket alone, having regard to the work of mercy those institutions were doing. Eventually the matter was referred to the Committee mentioned without any expression of opinion as to whether it was expedient to exempt hospitals from the payment of rates. The matter is obviously one of very considerable importance to hospitals, and we are glad to see that the question is to be examined in a sympathetic spirit by the London County Council. It may perhaps be difficult to prove to what extent the work of hospitals does relieve the rates, but that it does have such an effect can hardly be doubted. Apart from this, it seems to us that Dr. Collins's argument is in equity unanswerable.

THE ROYAL PORTSMOUTH HOSPITAL.

THE Duke and Duchess of York visited Portsmouth on Monday last to open the two new blocks of the Royal Portsmouth Hospital. The opening ceremony took place in the lower ward of one of the new blocks. Sir W. D. King, President of the Committee, in addressing their Royal Highnesses, recalled the fact that the foundation stone of the original hospital had been laid by Prince Albert in 1847. The growth of the population, which had risen from 60,000 to 200,000, had rendered enlargements of the building necessary, but in 1897, the year of the Queen's Diamond Jubilee, it was resolved to raise a fund to improve the structure of the hospital, and bring it into accord with modern requirements. A sum of nearly £16,000 was raised locally, and he believed that the new wards would not be surpassed by those of any hospital in the south of England. After the Mayor had thanked the Duke and Duchess of York, and had reminded them that the first stone of the new wards had been laid by the Duke of Connaught, a vote of thanks was moved by Sir John Baker, M.P., seconded by Lord Northbrook, and supported by Dr. J. Ward Cousins, who pointed out the immense benefits which a properly-constructed hospital afforded to the sick and injured. He expressed his belief that no better designed or constructed wards than these new ones could be found anywhere in the country, and confidently predicted that the other two blocks would be built before long. The Duke, in response, expressed his best wishes for the prosperity of the institution, and concluded by declaring the wards open. Subsequently, at the request of the Chairman, he named the women's wards "Victoria" and "Duchess of York," and the men's wards "Albert" and "Connaught."

CONSTRUCTIVE MURDER.

IT will be remembered that in an article on the law as to criminal abortion, which appeared in the BRITISH MEDICAL JOURNAL of December 3rd, 1898, we pointed out the need for a short Bill to deal with the whole subject of "constructive murder." We therefore learn with satisfaction that such a Bill has been brought in by Mr. W. Ambrose, Q.C. The Bill—the operative part of which consists of two sections only, together with the memorandum by which it is prefaced—is printed at page 560. As far as the Bill affects cases in which the accused is charged with causing the death of a person by performing, or attempting to perform, an illegal operation on the deceased, no fault need be found with the way in which the sections are worded. But in certain respects the Bill seems to be too widely drawn, and in some cases would entitle a person accused of murder to be found guilty of manslaughter only, when, in fact, he was guilty of the full offence. Let us assume that the only facts proved against the accused are that, while committing a burglary he was disturbed, and, being armed, fired at his disturber, whom he hit and killed. At the trial the accused goes into the witness box and swears, as is probably quite true in every such case, that he did not intend to kill the deceased, but only wished to wound him in order to make good his escape. In this case surely the accused is guilty of murder. Yet under the Bill as it now stands, it would seem that he would only be found guilty of manslaughter. It will be noticed that the main points of difference between the example given above and most other cases of constructive murder are that the burglar by firing does an act which is necessarily dangerous to life, and in itself likely to cause death without caring whether death is occasioned by it or not; whereas in the other cases the act which occasions death is not necessarily dangerous to life, and not likely in itself to cause death, nor is the idea of death in any way contemplated. It is true that in Section II it is provided that, apart from the constructive or implied malice mentioned in Section I, nothing in the Act shall prevent or restrict any presumption arising from the circumstances of the case as proved; but in our illustration no malice in fact exists, and no presumption of malice arises from the circumstances of the case. Whether the above contention as to the application of the Bill to such a case is correct or not, the point seems at least doubtful, and before the Bill becomes law all doubt should be removed, as could easily be done in Committee if once the principle involved in the Bill is approved by Parliament. The recommendation of the Criminal Code Bill Commission mentioned in the memorandum has remained in abeyance for a period of twenty years, but it is earnestly to be hoped that the present session will see "the law on this subject freed from the fiction of implied or constructive malice," and a blot which has remained much too long on the English criminal law at last removed.

THE LATE LORD HERSCHELL.

THE sudden death of Lord Herschell deprives the University of London of one of its most distinguished graduates. He was at the time of his death Chancellor of the University, a post to which he was appointed in June, 1893, on the death of the Earl of Derby. He was, we believe, the first graduate of the University chosen for that office, and also the first graduate to be made a Peer the second being Lord Lister. Lord Herschell showed great interest in the movement for the reform of the University of London, and before his election as Chancellor took part on several occasions in the debates in Convocation. He was in favour of a compromise of the nature which has now been effected, and the loss of his cool and impartial judgment on men and things will be much felt in the final settlement of this question. The accident which he met with on February 15th was, in the first place, supposed to be of a trifling nature, but it appears to have been in reality fracture of the neck of the femur. The sudden deprivation of exercise to a man of Lord Herschell's vigorous and active habits, no doubt contributed to bring about the fatal seizure which occurred on Wednesday morning.

PRELIMINARY EDUCATION IN IRELAND.

THE evidence given before the Irish Intermediate Education Commission should stimulate the General Medical Council to further action. At present they still admit the notoriously inadequate Junior Examinations, the requirements of which are quite proper for little boys, but are not of the standard which our students should possess, and among them is the Junior Intermediate in Ireland. The Council have long urged upon the Colleges of Physicians and Surgeons of Ireland that, being themselves licensing bodies, they should not also hold a Preliminary Examination. To this monition these bodies are at last giving heed, and have been petitioning the Intermediate Board to hold more examinations for the convenience of intending students. At present there is only one Junior Examination (alas!)

each year, and, as Dr. Atthill remarks, "At the present time sixteen years was the maximum age for passing in the Junior Intermediate grade, which was earlier than the College wished, and if the candidate failed at the examination for that grade he would have to go on the following year at a higher grade examination." It was requested therefore that an examination of the same standard should be held for older students, 17 or 18 years of age, and should recur twice or thrice a year. Before the same Board Mr. McNeill also gave evidence, and spoke for himself and Mr. Beere as examiners. Passages of Dr. Purser's report (1897) were read to him. "The chief faults of the greater mass of compositions in both grades are (1) a grievous disregard of the concords, (2) ignorance of the difference between the active and passive voice." "It is the exception to meet with a boy or girl who does not in ten or twelve lines of Latin fail to make practical use of the rule that a verb should agree with its nominative case in number; still more rarely is a relative found agreeing with its antecedent in gender." With these strictures Mr. McNeill cordially agreed. He was asked, "Must we not infer that an immense number of candidates passed in the senior grade who were ignorant of the elements of Latin grammar?" He answered "Yes; and the ignorance is much worse in the lower grades." It is the lower grade which the General Medical Council still accepts as adequate, and which the Royal Colleges of Physicians and Surgeons in Ireland are asking to be applied to young men of 17 and 18 years of age.

MUSEUM OF THE INTERNATIONAL OTOLOGICAL CONGRESS.

IN connection with the International Otological Congress to be held in London from August 8th to 12th, we are asked to state that one of its special features will be a museum, which it is hoped will be thoroughly comprehensive. The Committee ask for the loan of specimens of all kinds illustrating the anatomy and pathology of the ear, nose, and naso-pharynx. Descriptions of specimens should be sent to Mr. Arthur Cheatle, Honorary Secretary, at 117, Harley Street, on or before June 30th. The specimens themselves may be sent to the Honorary Secretary any time before July 26th, or may be sent direct, between July 26th and August 5th, to the Examination Hall, Thames Embankment, where the museum will be formed. It is intended that the catalogue shall be of permanent value for reference purposes. A copy will be presented to all members of the Congress.

DOCTORS AND DISTRICT NURSES.

A COUNTRY correspondent, in commenting upon a case in his neighbourhood in which friction had occurred between a medical officer and public vaccinator to a union and the district nurse, makes some remarks that seem worthy of publication. He believes "the prejudice of medical men against district nurses is only too frequent. Such prejudice is the chief obstacle to contend with in many places where a nurse is started, but it often arises because the medical man is ignored." The nurses in our correspondent's district are not allowed to see or treat any case without medical advice, and they prefer this after working with the other free and easy method. It is indeed difficult to understand how friction can fail to result if nurses are allowed to work in any other manner. To interfere with the doctor's treatment without his sanction is wrong, and it ought not to be possible for it to occur. The Committee controlling a nurse or nurses consists probably of ladies and gentlemen with a single-minded purpose—the relief of suffering in their fellow beings. They are naturally, however, "not always acquainted with the methods of medical practice, or the proper conduct of a nurse from the doctor's point of view; and they would do well to invite the medical men concerned to join their Committee—not merely invite them, but persuade them—and the medical men should have an influence in their deliberations. Occasionally a medical man may prefer to stand aloof; in that case the association and committee can only expect the smallest return for their subscriptions and their energy. There should for all district nurses be a rule, understood if not written, that no case shall be attended that has not been seen once at least by a medical man, and that no treatment shall be altered or initiated without his sanction. In case of accident or emergency the nurse shall do what she considered best until medical advice be obtained."

THE INTERNATIONAL CONGRESS OF HYGIENE AND DEMOGRAPHY.

THE tenth meeting of the International Congress of Hygiene will be held in Paris in August, 1900. The division of Hygiene will comprise seven sections as follows: 1. Microbiology and Parasitology applied to Hygiene. M. Laveran is President, and M. Netter Secretary, of this section, in which the questions to be discussed are the measurement of the activity of serums; the prophylaxis and preventive treatment of diphtheria; meat poisoning, its causes and the means of its prevention; pathogenic microbes in soil and water (cholera, typhoid fever, and other diseases); the part played by water and by vegetables in the etiology of intestinal helminthiasis. 2. Chemical and Veterinary Sciences applied to Hygiene; Alimentary Hygiene, in which the questions to be discussed are tinned provisions and the means of preventing accidents; unification of international control; the establishment of a general and uniform system of inspection of slaughterhouses, etc. 3. Engineering and Architecture applied to Hygiene, in which the question to be discussed is the protection of water supplies. 4. Personal Hygiene, in which the question to be discussed is contagious patients from the hospital point of view. 5. Industrial and Professional Hygiene. 6. Military, Naval, and Colonial Hygiene, in which the question to be discussed is the means of ensuring the purity of water from the point of view of colonial hygiene. 7. General and International Hygiene (Prophylaxis of Communicable Diseases; Sanitary Administration and Legislation), in which the questions to be discussed are the prophylaxis of tuberculosis in regard to individuals, families, etc.; the compulsory notification of communicable diseases, its necessary consequences (isolation, disinfection) and its results in different countries; the prophylaxis of syphilis; and the international prophylaxis of yellow fever.

LORD LISTER has been appointed a Foreign Associate of the Paris Academy of Medicine.

SIR J. ACCACIO DA GAMA, of Bombay, has been appointed by the King of Portugal a member of His Majesty's Privy Council.

MR. ALFRED COOPER, who recently resigned the office of Surgeon to St. Mark's Hospital for Fistula, etc., after thirty-four years' service, has been elected Honorary Consulting Surgeon to that institution.

THE honorary degrees that are to be conferred by Glasgow University at the graduation ceremony in April next are now published, and we are glad to see that Dr. James Finlayson, Physician to the Western Infirmary, who has contributed largely to the literature of clinical and historical medicine, is to receive the honorary degree of Doctor of Laws (LL.D.).

SUCCESSFUL VACCINATION.—Dr. John Galletly, Public Vaccinator for the Rippingale District of the Bourne Union, has been awarded for the third time in succession the Government grant for successful vaccination in his district.

MEDICAL NOTES IN PARLIAMENT.

[From Our Lobby Correspondents.]

The London Government Bill, which Mr. Balfour introduced last week, has been the subject of much conversation in the Lobby, and opinion seems to be growing less favourable to it. When the Bill has been studied many critics will no doubt disappear, for a large measure like this cannot be properly judged till all its provisions are before the public. It will substitute for the vestrydom which has hitherto ruled the local areas of the metropolis a number of municipalities, which by their size and wealth will give local government in London a dignity which it has never before attained. The elevation of the local governing bodies will indirectly affect the medical profession by improving the position of the municipal health officers, and bringing larger areas under strict sanitary control. So far, there is no indication that the County Council will in any serious degree be shorn of its powers or importance.

The Inebriates Act (1898) Amendment Bill is a little Bill of two clauses to remedy omissions in last year's Act. The Act had not got to work before it was necessary to bring in this measure to provide that the expenses of prosecutions under Section 11 should be payable as in cases of felony. This is the object of the first clause; the second gives power to deal summarily with breaches of the regulations made by the Secretary of State with respect to inebriate reformatories. It is to be hoped that the Act will be amended as proposed, and that work will soon be accomplished under it. The Home Secretary has promised to consider the appointment of a woman inspector should it become necessary, in addition to the medical man who has already been appointed.

The Nursing Staff in the Egyptian Campaign was again discussed by Captain Norton on the Supplementary Estimates, and although the division gave the Government a majority of 68, the debate was not very favourable to them. It was admitted that the Principal Medical Officer of the army of occupation in Egypt had asked for a hospital ship, and that the General Commanding in Egypt had said he would consult Lord Cromer and make the application if necessary. No application, apparently, was made, and so no actual refusal could be proved against the authorities. The Under-Secretary argued against the advantage of a hospital ship, and contended that no injury had been done by its absence. He admitted that the 280 men sent home had to wait some time. In September the average number of days of waiting at Cairo was 26, in October 29, and in November 19 days, while at Alexandria it averaged 7 days for each of the months. There were at the hospital base 226 men nurses and 10 women nurses, all trained, for an average of 541 patients, of whom nearly 150 had neither wounds nor enteric fever. The difficulties of discipline were alleged as reasons against having more trained women nurses. The debate on the whole was unsatisfactory, as it left the impression that some unwise economy had been exercised, and the matter is sure to crop up again in some form or other.

The Sale of Food and Drugs Act Amendment Bill was introduced and read a first time at the end of last week. Mr. Long stated that it was divided into two parts, of which the first dealt with certain dairy products, such as cheese, butter, and milk, and like the Bill of last year contained powers to deal with these articles of food at the port of entry. The Margarine Act was extended, analyses regulated, the mixing of margarine and butter limited, and cumulative penalties were imposed in the second part in connection with the adulteration of food and drugs. The second reading has been put down for March 2nd, but is not likely to come on so soon.

Rabies in Ireland appears from the figures given by the Irish Secretary to have decreased since the muzzling order has been in force. In the first six months of 1897, before the muzzling order came into operation, there were 335 cases; in the second six months of that year only 162, while in the whole of 1898 there were only 132 cases. Under these circumstances the order will not be suspended.

The Universities (Scotland) Acts Amendment Bill is a small measure which makes provision for professors' retiring allowances when the University Court has required retirement. In such cases, in default of other funds, the retiring allowance will be made chargeable on the future emoluments of the Chair. It specially applies to the University of Aberdeen, and is brought in by the Lord Advocate and Mr. Anstruther. The second reading is down for March 2nd.

The Education of Children Bill of Mr. Robson occupied Wednesday afternoon, and provoked a most interesting debate. The opposition came mainly from the agricultural and textile districts, but the arguments in favour of raising the age from 11 to 12 for half-timers, and eventually to 13, were so strong that the second reading was carried by 317 to 59.

ROYAL EDINBURGH ASYLUM.

Physician-Superintendent's Annual Report for 1898.

Statistics.—In the beginning of the year the number of patients was 899 (including 11 on probation, and on December 31st it was 945 (including 7 on probation). The admissions were 451—201 men and 250 women. The total number of patients under treatment was, therefore, 1,350. The patients discharged number 302—135 men and 167 women. The number of patients who died was 103—50 men and 53 women. The average number of patients resident during the year was 910, of whom 447 were men and 463 women.

The number of admissions (451) was the largest in any one year, with two exceptions, 1894 and 1896, and had it been possible to admit all the private patients who applied at the lower rates of board, it would have been the highest on record. The average number of yearly admissions for the past five years has been 432, so that 1898 is 19 above that average. During the past quarter of a century the average numbers for each period of five years have gradually risen by 23 each quinquenniad, and this year the increase was so great that 200 more patients were admitted than twenty-five years ago. The increase has been more among rate-paid patients; it has been 54 per cent. in this class in the twenty-five years. There is, on the other hand, an increase of only 12 per cent. in the average yearly number of private patients admitted in these twenty-five years. This has been largely due to the West House being full of rate-paid patients, and the consequent inability to receive all the private patients that applied; indeed, during the last six months of the year no private patients could be received at the West House. It has now been arranged to transfer 60 rate-paid patients to Larbert and Hartwood Asylums to relieve the tension.

The Advantages of Hospitals for the Insane.—Dr. Clouston points out that a more extended realisation among society of every grade of the benefit and convenience of hospitals for the insane will increase the admissions for many years to come. It is becoming better understood that many forms of mental disease are morbid accentuations of natural dispositions—in one case temper shading off into mania, in another keen sensitiveness of feeling passing into melancholia, and in a third suspiciousness verging into insane delusions, so that the subjects of such changes become unfit for family or social life. The relief and safety of a well-appointed hospital becomes necessary in more and more cases.

The Etiology of Mental Disease.—Certain mental diseases are preventable, others are not; some, "taken in time," can be arrested; others "run their course," little influenced by any treatment in any stage. Prevention is the great aim of modern medicine. Diagnosis in early stages, and endeavour to arrest or modify its symptoms, the next aim. Few cases of mental disease, Dr. Clouston believes, can be prevented, because the patient's brain has a hereditary predisposition to nervous instability if not to insanity. This is roused into actual disease by events in his physiological life, or his circumstances, or his environment, over which he or others had little control. No doubt the 115 cases who owed their mental breakdown to excess in alcohol and immorality could have saved themselves, and a terrible penalty has been enacted of them for their lack of control, but the cases due to the physiological periods and processes of development and decadence, of childbirth and nursing—there were 167 such cases this year—are most of them not preventable. Only lately had it been fully realised how the mere natural process of building up and development of the organism from infancy up to full manhood and womanhood was attended by innumerable risks to the brain and nervous system. From idiocy, the great mental risk of the earliest age of development, to the insanity of adolescence which comes on from the age of 18 to 25, and is the last risk of development, there are many intermediate stages. Epilepsy, with insanity, appeared more frequently during the developmental period than any other, and 14 such cases had been sent during the year. Throughout Great Britain 40 per cent. of all mental defects are due to errors in development. In this relation the high nervous death-rate before 25 should be noted. Further, unrelational development accounted for much insanity and neurosis.

Unphysiological Old Age.—Dr. Clouston next referred to the mental and nervous risks of growing old. Of the 103 such cases received during the year many resulted from a limited and unrelational decay of single functions and faculties before their time. About 5 per cent. of the whole insanity of the country is due to faults of decadence, but that does not represent the real risk of growing old, for over 20 per cent. of the yearly occurring mental disease is due to it. Nature lessened the output of energy of the brain as years went on. No man has his natural force unabated at 70; 33.2 per cent. of the general population die from nervous diseases from 51 to 75; but calm wisdom was an easy process to the nerves. The recent views of Krepelin were referred to and a warning note given to men and women over 50 to the effect that they should be more careful of alcohol excesses, of avoiding the causes of rheumatism, gout, bronchitis, and other diseases. They succumb for want of nerve energy. Rules for growing up and growing old safely were a desideratum. To have altogether prevented certain cases of insanity Holmes says we should have begun 200 years ago. Our position then must be, *Obsta principiis*. The difficulty was to interpret early signs.

Recovery and Death-rates.—Three hundred and two patients were discharged during the year, of whom 163 were recovered and 94 relieved of their worst symptoms—that is a recovery of 36 per cent., 4 per cent. less than average of the past sixty years; 66 per cent. left in six months, 90 per cent. within the year. The death-rate was high, 11.3 per cent. on the average number resident, but many old broken cases were sent in; 51 per cent. die within the year after admission. This class was becoming more numerous. The death-rate did not differ much from that of the county and borough asylums of England. Irish lunatics lived longer. A striking fact in regard to the death-rate was that it went up from 8.8 per cent. on the average numbers resident (the average rate for the ten years previous to 1890) to 13.1 in 1890, and had kept up to 11.9 for the nine years 1890-98. Influenza was largely responsible for the increase; a larger number died from pulmonary consumption and tuberculous diseases. Probably this was due to overcrowding of the West House.

Miscellaneous.—The report concludes with references to the new drainage system for the West House, to the meeting of the British Medical Association in July last, to the favourable opinion of the medical profession given of the Edinburgh asylum, to the reunion of the old staff of the asylum, and to the subjects then discussed, to the meeting of the Medico-Psychological Association, to Dr. Ford Robertson's continued successful work in the laboratory of the asylums, to the need for extension in the range of work in that laboratory, to the changes in the staff of the asylum, and, finally, to the fact that Dr. Clouston had himself now completed twenty-five years' service.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

The annual general meeting of this Society was held on Wednesday, March 1st, Mr. T. **Bryant**, M.Ch., F.R.C.S., President, in the chair.

Report of Council.

After the minutes of the last annual general meeting had been read and confirmed, the report of the Council for the past half year was read by Dr. **Norman Moore**, the Senior Secretary. The affairs of the Society were in a satisfactory condition; 35 new Fellows had been elected, of whom 24 were resident, while 11 Fellows had died and three had resigned. The changes of hours for the use of the library had been found to work well, and to be for the greater convenience of the Fellows. During the temporary absence of the resident librarian from ill health the work had been admirably performed by the assistant librarian, Mr. Clarke. The Committee on Suspended Animation reported that arrangements were being made for further investigations at Claybury. The Committee on Climatology and Balneology were making progress, and reports on Ireland and on the Midlands were nearing completion. The treasurers had altered the arrangement of the financial statement, so as to show more clearly the exact position of the Society. There had been 351 volumes purchased for the library, and 241 works and pamphlets had been presented during the past year.

The **Senior Treasurer** (Dr. W. S. Church) explained the alterations of the financial statement. This had been done on the advice and by the help of Mr. T. Mundy, the auditor, who had been at great trouble to help the Society. This alteration put the affairs of the Society on a thoroughly business-like footing. After some discussion, in which Dr. C. T. **Williams**, Dr. **Abercrombie**, and Dr. **Church** took part, the report of the Council was, on the motion of the **President**, seconded by Dr. N. **Moore**, adopted.

The Award of the Marshall-Hall Prize.

The Committee appointed for this purpose unanimously recommended Professor C. S. Sherrington, M.D., F.R.S. This recommendation having been adopted, the **President** in graceful terms congratulated Professor Sherrington, handed him the diploma and prize, and expressed a hope that the Society would have an opportunity of hearing from him an account of his researches. Professor **Sherrington** returned thanks to the Society.

President's Address.

The **President** then delivered the annual address. All the reports, and especially the Treasurer's, showed good results. The papers had been valuable, but he should have preferred to have seen larger attendances. He expressed his appreciation of the valuable services of the retiring Secretary, Dr. Norman Moore. He read obituary notices of Sir R. Quain, Sir W. Jenner, Dr. Charles West, Dr. C. J. Hare, Mr. H. Lee, and Professor A. A. Kanthack.

Dr. **Dickinson** proposed that the best thanks of the Society be given to the President for his address, and that he be requested to allow it to be printed in the *Transactions*.

Dr. R. L. **Bowles** seconded this, and it was carried unanimously.

The usual votes of thanks to the retiring Vice-Presidents (Dr. Marcet and Mr. Gant), Librarian (Dr. Gee), Secretary (Dr. Norman Moore), and members of Council (Drs. Allchin, Bowles, Mitchell Bruce, and Savage, and Messrs. Cheyne, Clutton, Eve, and Meredith) were passed.

Election of Officers and Council.

The following officers were elected for the ensuing session:—*President:* Thomas Bryant. *Vice-Presidents:* George Fielding Blandford, M.D.: *Samuel Jones Gee, M.D.; *Henry Greenway Howse, M.S.; Reginald Harrison. *Honorary Treasurers:* William Selby Church, M.D.; J. Warrington Haward. *Honorary Secretaries:* *Thomas Barlow, M.D.; Alfred Pearce Gould, M.S. *Honorary Librarians:* *Norman Moore, M.D.; Rickman J. Godlee, M.S. *Members of Council:* Francis Henry Champneys, M.D.; *Stephen Mackenzie, M.D.; *Seymour John Sharkey, M D.; *Eustace Smith, M D.; *Francis Warner, M.D.; *W. Bruce Clarke; *George Henry Makins; *Robert William Parker; *Edward Albert Schäfer, F.R.S.: Edgcombe Venning. (Those Fellows against whose names asterisks are placed were not on the Council, or did not fill the same office last year.)

Bile Inoculation and Rinderpest.—The Ceylon Government Veterinary Surgeon, Mr. G. W. Sturgess, has published a report on the successful experiments he has recently made with bile inoculation as a preventive against rinderpest. The disease appeared among the cart bullocks belonging to Messrs. Lipton, Limited; 80 were attacked, 50 yielded to treatment and recovered, and 30 died. Mr. Sturgess then obtained permission to try the bile inoculation method. He inoculated four healthy bulls, and tied them up for a week by the side of an infected animal in an infected shed, but none of them contracted the disease, nor were any of them ill. Mr. Sturgess describes the method as very simple, and quite harmless if properly carried out.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF SPECIAL MEETING.

A SPECIAL Meeting of the Council will be held at the office of the Association, No. 429, Strand, London, W.C. on Friday, the 10th day of March next, at 2 o'clock in the afternoon, to consider the recommendation of the special meeting of the Parliamentary Bills Committee held on February 3rd.

FRANCIS FOWKE, *General Secretary.*

429, Strand, February 15th, 1899.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1899.

MEETINGS of the Council will be held on April 12th, July 12th, and October 11th, 1899. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 23rd, June 22nd, and September 21st, 1899.

ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

CORK AND SOUTH OF IRELAND BRANCH.—A general meeting of this Branch will be held on Friday, March 10th, in the Medical Society Rooms, Cork, at 4.30 P.M.—PHILIP LEE, 25, St. Patrick's Hill, Cork, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH; NORTH LONDON DISTRICT.—A meeting of this District will be held at the London Temperance Hospital, Hampstead Road, on Wednesday, March 8th, at 4.30 P.M. Dr. Morton will preside. Mr. L. A. Bidwell will read a paper on the Surgical Treatment of Gastric Ulcer. Cases of interest will be shown in the wards of the hospital. The District Committee will meet at 4.15 P.M.—H. J. MACEVOY, Brondesbury, N.W., Honorary Secretary.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of this District will be held at Brighton on March 23rd. Members wishing to make communications to the meeting are requested to inform the Honorary Secretary before March 10th.—J. W. BATTERHAM, Bank House, Grand Parade, St. Leonards, Honorary Secretary.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.—The next meeting of this District will be held at the Queen's Hotel, Upper Norwood, on Thursday, March 9th, at 4 P.M.; Mr. E. Beaumont, of Upper Norwood, in the chair. Dinner at 6 P.M.; charge 7s., exclusive of wine. Agenda:—(1) Minutes of Reigate meeting. (2) To decide when and where the next meeting shall be held, and to nominate a member of the Branch to take the chair thereat. (3) Election of Honorary Secretary. (4) To receive nominations for representatives on the Council of the Association. The following papers, etc., will be read.—Dr. Patrick Manson: Demonstrations on Malaria. Mr. Marmaduke Sheild: Some points in the Diagnosis and Treatment of Nasal Polypi. Mr. Lewis A. Tallerman: Demonstration of the Tallerman Treatment by the Localised Application of Superheated Dry Air. Messrs. Allen and Hanburys will exhibit Surgical Instruments, etc. Members desirous of exhibiting specimens or reading notes of cases are invited to communicate at once with the Honorary Secretary. All members of the South-Eastern Branch are entitled to attend, and to introduce professional friends. The Honorary Secretary would be much obliged if members would kindly inform him by postcard whether they intend, if possible, to be present at the meeting, and if likely to remain to dinner.—HENRY J. PRANGLEY, Tudor House, Anerley, Honorary Secretary.

SOUTH-EASTERN BRANCH: EAST KENT, WEST KENT, AND NORTH KENT DISTRICTS.—A conjoint meeting of the above Districts will be held at St. Bartholomew's Hospital, Rochester, on Tuesday, March 21st, at 3 P.M., Dr. T. T. Brunyate in the chair, when Mr. Victor Horsley, F.R.S., will deliver an address on the Present Condition of the Medical Practitioner and his Relation to the General Medical Council. Dinner at the Bull Hotel at 6 P.M.; charge 6s. exclusive of wines. All members of the South-Eastern Branch are entitled to attend and to introduce professional friends. The Honorary Secretary of the West Kent District would be much obliged if members would kindly inform him by post-card whether they intend, if possible, to be present at the dinner. By so doing they will very materially facilitate arrangements and promote the success of the meeting.—LUDFORD COOPER, St. Bartholomew's Hospital, Rochester, Hon. Sec. West Kent District; T. F. RAVEN, Broadstairs, Hon. Sec. East Kent District; A. TENNYSON SMITH, Orpington, Hon. Sec. North Kent District.

EDINBURGH BRANCH.—The annual winter meeting of the Edinburgh (Fife and Lothians) Branch, in conjunction with other Branches, will be held in the Royal Infirmary, Edinburgh, on Friday, March 17th. A Medical Congress for Clinical Demonstrations will be held at 4 P.M. The museum (pathological and apparatus) will be open from 3.30 P.M. onwards. Dinner in the Royal Hotel, Princes Street, at 6.30 P.M.; dinner ticket, 5s. Intimation of exhibits (clinical or other) should be made to JAS. HODSDON, M.D., 6, Chester Street, Edinburgh, or R. W. PHILIP, M.D., 45, Charlotte Square, Edinburgh, Honorary Secretaries.

MIDLAND BRANCH: LINCOLNSHIRE DISTRICT A meeting of this District will be held at Spalding on March 9th, in the Johnson Hospital, at 2 P.M.; Dr. W. A. Carline, President. Communications:—Dr. G. M. Lowe: Fæcal Accumulations simulating Disease. Dr. Reginald Farrar: Labourers' Boots. Dr. E. C. Kingdon: Some Clinical Features of Acute Glaucoma. Mr. G. Lacy Barritt: Notes of (1) Brain Injury by a Ramrod passing through the Skull; and (2) Acute Suppurating Appendicitis; Abdominal Section; Recovery. Mr. W. J. Cant: An Operation for Ptosis by Permanent Subcutaneous Wire Loop. Lunch at 1 P.M., at the White Hart Hotel; 2s. 6d. each. Those who intend to be present will kindly send an intimation, on or before Tuesday, March 7th, to Dr. MANSER SYMPSON, Deloraine Court, Lincoln, Honorary Secretary.

BATH AND BRISTOL BRANCH.

THE fourth meeting of the session was held at Bath on February 22nd, Dr. WEATHERLY, President, in the chair. There were 54 members and visitors present.

New Members.—The following gentlemen were elected members of the Association and Branch:—Philip Flood, L.R.C.P., L.R.C.S. (Bristol); E. W. H. Groves, M.B., B.Sc.Lond., M.R.C.S., L.R.C.P. (Kingswood); H. F. Parsons, M.R.C.S., L.R.C.P. (Bristol); C. O'Brien, L.R.C.S.I., L.M. (Bristol).

Vaccination Act, 1898.—It was proposed by Mr. H. C. HOPKINS, seconded by Mr. E. J. SHEPPARD, and carried:

> That this meeting of the Bath and Bristol Branch of the British Medical Association expresses its entire disapproval of the Vaccination Act of the last year, believing it must eventuate in a great relaxation of vaccination in the country, and in a few years lead to a large increase in small-pox.

A series of resolutions sent by the Council of the Association was read and endorsed.

Unregistered and Advertising Dentists.—A communication was read from the Western Counties Branch of the British Dental Association, and on the proposition of Dr. WEATHERLY, seconded by Mr. HOPKINS, it was resolved:

> That it is unprofessional for registered medical practitioners to give anæsthetics for, or to meet in consultation, unregistered dentists, and that advertising should be discouraged as much as possible.

Papers.—Dr. MICHELL CLARKE read a paper on the Treatment of Adhesions and of Pyloric Stenosis due to Gastric Ulcer, which was discussed by Mr. PAUL BUSH, Dr. WALDO, Dr. MARKHAM SKERRITT, and Dr. GOODRIDGE.—Dr. DOUGLAS KERR read a paper on Treatment by Hot Air, with demonstrations. Messrs. GREVILLE and DOWSING showed their respective methods of applying dry heat, and in the discussion which ensued Mr. GREEN and Dr. WOHLMANN joined.—Dr. WILSON SMITH read a paper on Some Events in the Course of the Uric Acid Diathesis, which was discussed by Dr. WATSON WILLIAMS, Dr. MARKHAM SKERRITT, Dr. MICHELL CLARKE, and Dr. REUELL ATKINSON

BORDER COUNTIES BRANCH: COUNTIES OF ROXBURGH, BERWICK, SELKIRK, AND PEEBLES DISTRICT.

A MEETING of this District was held at Galashiels on February 17th, Dr. BLAIR (Jedburgh), Chairman of the Section, presiding.

Confirmation of Minutes.—The minutes of the last meeting were read and approved.

The Next Meeting.—It was agreed to hold the next meeting in Newtown, St. Boswells, at the end of April.

Discussion.—Dr. MENZIES agreed to introduce a discussion on Typhoid Fever, its Etiology, Diagnosis, and Treatment at the next meeting of the Section.

The late Dr. Murray.—Dr. BLAIR moved a vote of sympathy on the occasion of the death of Dr. Murray (Galashiels) in touching and appropriate terms. This was seconded by Dr. SOMERVILLE, and unanimously carried. Dr. Tyrell was appointed to the vacancy caused by the death of Dr. Murray.

Communications.—Dr. CALVERT showed a case of Hip-joint Disease at an unusual age. The patient was 20 when it began and 22 when it recurred and he came under Dr. Calvert's care. He lay altogether 17 months with extension by a weight of 10lb. all the time. For 3 months after it was put on at night only. Since then there had been no extension, but he wore a patten on the sound side and stilts were always in use. In March, when he would have been two years under treatment, walking in the ordinary manner would be resumed. The actual cautery was used two months after he lay down, and the sore remained unhealed twelve months. Two abscesses were opened; they were treated aseptically, and after discharging six months healed up entirely. There was now no shortening whatever; the limb was perfectly straight; and there was limited movement, gradually increasing, in the hip-joint.—Dr. STURROCK showed a cast of an Infant's Mouth at birth, in which there was a well-marked central incisor. He read a paper on Early Dentition, showing it was a rare occurrence but well known. He quoted instances of the kind previously recorded. He quoted from Jacobi, of New York, showing there were instances of people acquiring entirely new sets of teeth at 47, 63, and 90 years.—Dr. TYRELL read a paper on The Influence of Morphine in Controlling the Vomiting of Pregnancy. This drug was employed only after all the ordinary means had been tried—oxalate of cerium in large doses, rest in bed, and milk diet. He quoted cases in which half a grain of morphine was injected every day for three months prior to labour. The emesis usually ceased in about a quarter of an hour after the injection. The mother came well through the confinement, and there was no injury to the child. Several cases were detailed showing the advantage of this remedy hypodermically in the complication of pregnancy.—Dr. SOMERVILLE read Notes on Thrombosis. In this condition the thrombus softened from the centre outwards until a small rim was left, which burst, and then the fluid entered the general circulation. He quoted several cases showing no other explanation than the bursting of a thrombus which at once produced a sudden access of fever. He related several cases of thrombosis of the pulmonary artery. In some cases it began in the ventricle and extended into the artery; in others it began in the artery and extended back to the heart.—Dr. HADDON gave particulars of the case of a man, aged 20 years, who had been ill five months before he saw him, from the effects of an attack of peritonitis. There was dilatation of the stomach, with fulness to the left of the umbilicus. The bowels would not act without medicine, and there was great emaciation but no vomiting. The temperature taken night and morning for two months was higher in the morning than at night, seldom reaching 98° in the morning, even in the mouth, and going as low as 95.2° at nights. When kept in bed there was less variation between the morning and evening temperatures, both being just above or below 97°. He was familiar with inverse temperature in acute disease, and regarded it as an indication of an inflammation of a serous membrane. Thus, if in a case of pneumonia inverse temperature was seen, the pleura was affected; if in typhoid, the peritoneum. If seen in cerebral cases it pointed to meningitis. But with regard to such a chronic case as this he had no experience, and mentioned it in the hope of getting some information on the subject. In addition to dilatation of the stomach there was a suspicion of obstruction of the bowels.—Dr. CALVERT showed an Epithelioma Recti which he had removed nearly 2½ years ago from a lady over 80 years of age, without any return so far. He made a semicircular incision in front of the anus, then split up the perineal body by means of blunt-pointed scissors, guiding these by means of the finger in the vagina. The disease extended upwards in the anterior wall of the rectum about 2½ inches from the anal orifice.

STAFFORDSHIRE BRANCH.

THE second general meeting of the session was held at Stafford on February 23rd, Dr. M'ALDOWIE (President) in the chair. Twenty-two members were present.

Confirmation of Minutes.—The minutes of the last general meeting were approved and signed.

New Member.—Andrew Aiken, M.B., C.M. (Fenton) was elected a member of the Branch.

Death of Dr. J. Y. Totherick.—On the proposal of the PRESIDENT the Branch recorded the loss it had sustained in the death of Dr. Totherick of Wolverhampton, who was for so many years an active member and valued contributor to its work, and directed that an expression of its sympathy be forwarded to Mrs. Totherick. The motion was spoken to also by Mr. W. H. FALKER, Mr. LAWSON TAIT, Dr. W. G. LOWE, and Dr. RIDLEY BAILEY.

Papers.—Dr. KING ALCOCK read a paper on Some Complications of Anæmia, in which he commented on the clinical histories of some cases presenting the somewhat rare symptoms of optic neuritis and an intense form of headache in causal association with chlorosis and anæmia after hæmorrhage. Stress was laid on the importance of recognition of the true cause of these symptoms in such cases, since any failure to adopt the necessary treatment by iron might be attended by unfortunate results.—Mr. E. P. HUNT read notes of a Case of Chorea mainly treated by very large doses of morphine. The child, aged 14, came under treatment in January, 1898. For a month the case was of a mild character, but early in February convulsions became extremely severe. After more or less ineffectual treatment by arsenic, bromides, chloral, etc., morphine was given, at first in moderate doses, but the child getting no sleep, and death threatening from nervous exhaustion, the drug was pushed until the hypodermic dose reached 2 gr. She had a mitral systolic murmur, dilated heart, paralysis of the left arm, and absence of knee-jerk. The morphine produced no bad symptoms, and there was no constipation or interference with digestive organs. The child made a good recovery, and the heart is now healthy.

Specimen.—Mr. J. F. FERNIE exhibited a piece of the Small Intestine, situated about 18 inches above the ileo-cæcal valve, removed from a patient who had died of phthisis, and showing a diverticulum about 4 inches long. The lumen of it was equal to that of the bowel, and Mr. Fernie looked upon it as being probably a pervious portion of the omphalo-mesenteric duct.

CORRESPONDENCE.

THE CENSUS BILL FOR 1901.

SIR,—The Census Bill for 1901 being now under the consideration of the House of Commons, it behoves all persons interested in statistics and sanitation (whether general practioners, medical officers of health, or members of the Statistical Society) to exercise their power in order to obtain a "Quinquennial Census Bill" instead of a "Decennial" one, also that the same be taken at the end of June.

A quinquennial census is practised in France, New Zealand, Queensland, Manitoba, and North-Western Territory of Canada, and in some German States a triennial.

Vital statistics must always furnish the basis on which sanitary reforms shall rest, and as these are obtained from the population of districts, unless the said population is accurate the results desired after the trouble of gathering the statistics are worthless.

Means have been adopted to obtain the estimated population of places for intercensal periods, but these are found to be inaccurate, and the error increases the further the calculation is removed from the last census.

The effect of migration is so great in this country, and especially in rural districts, of which Cumberland, Westmorland, and Cheshire afford numerous examples, that no means can be adopted to cope with the same "except frequent census returns."

I therefore urge your readers in each parliamentary district to petition his representative in the House of Commons to support and vote for a "quinquennial census" when the Census Bill is before the House.—I am, etc.,

JOHN PENNY, M.B., B.Sc.(Public Health)Edin.

Great Broughton, Cockermouth, Feb. 27th.

THE GENERAL MEDICAL COUNCIL AND THE HUNTER CASE.

SIR,—I emphatically deny the charge of your correspondent, Mr. B. L. Richmond. My statements *re* Ellis *v.* Kelly are as accurate as the accusation is unfounded. To prove this it is only necessary to refer to your report on the Hunter case. On page 303 of the BRITISH MEDICAL JOURNAL Mr. Justice Channell says (alluding to Ellis *v.* Kelly): "Because the Heidelberg degree of Doctor of Medicine prevented the man being convicted of falsely describing himself as a Doctor of Medicine."

To this Mr. Muir Mackenzie answered "Yes," but expressed an opinion that this ruling should be taken subject to the qualification in the later case of Andrews *v.* Styrap. I pointed out in my last letter that this case is altogether different, the former referring to a registered, and the latter to an unregistered practitioner, but at any rate it is quite clear that Mr. Justice Channell considered that the ruling to be deduced from Ellis *v.* Kelly alone was as I stated; and further, that the counsel for the General Medical Council admitted it. Your correspondent's first quotation from Baron Bramwell's remarks in Ellis *v.* Kelly proves nothing. My point is not that a registered medical practitioner may "wilfully and falsely" describe himself as a Doctor of Medicine; but that a registered practitioner, possessing a *bonâ fide* foreign degree, does not falsely call himself so, as was decided in Ellis *v.* Kelly.

With regard to the second quotation imputed to Baron Bramwell I will say nothing. There is good reason to believe the learned judge never uttered it. Your correspondent, as a barrister, should be aware that it does not occur in the official report of Ellis *v.* Kelly, referred to during the course of the Hunter case (30 *L. J.*, 35).

The truth of my contention, moreover, is fully borne out by experience. The Kelly case occurred about 1862, and up to the present time, with the possible exception of R. *v.* Baker, no registered practitioner has ever been proceeded against for falsely calling himself a Doctor of Medicine with a foreign degree. The gist of R. *v.* Baker was not the false assumption of the title of "M.D." so much as the appropriating of other registrable qualifications to which the defendant had no title whatever. His "M.D." likewise was a bogus one, and his only legal qualification the old "L.S.A." diploma, which did not authorise the practice of surgery.

As it is notorious that during the last thirty years registered practitioners all over the country have been in the habit of describing themselves as "M.D." on foreign degrees, there can be little doubt as to what is the general opinion as to the ruling in Ellis *v.* Kelly.—I am, etc.,

MAJOR GREENWOOD, M.D.Brux., LL.B.Lond.
Hackney Road, N.E., Feb. 26th. Barrister-at-Law.

MIDWIVES BILL.

SIR,—I should like to especially draw the attention of all your readers to the concluding sentence of Dr. Lovell Drage's letter on the Midwives Bill. It is high time that general practitioners arose from their slumbers and strenuously opposed the Bill, fraught as it is with so much danger to their own interests. It is high time that we gave up quibbling about gowns and hoods, or whether our neighbour diplomate have a right to call himself doctor. With regard to the former question, if we could get all Members of the Royal College of Surgeons to band themselves together and take an active interest in burning questions, the settlement of which will either raise or lower our future status, I am sure no medical man would mind if they were all clothed in purple and fine linen to-morrow. Then, with regard to the title of doctor. Our practical work will tell in the long run what we are worth. Jealousy is often at the root of these quibbles. Because Mrs. A. calls in Snooks, who happens to be an M.D., do not think that it is a slight on you because you happen to be L.S.A.; for remember Mrs. B. calls in you in preference to Dr. Snooks, in spite, may we say? of your qualification. No; we shall, if we are not careful, find next door to our own a member of an inferior order of practitioners. It will then be too late to check the evil which will then be firmly established on a legal basis. We must look to the interests of our profession and patients. We cannot afford to look quietly on while our status as a scientific profession is being gradually lowered by the admission of a number of non-scientific midwives.

Every existing medical society should fearlessly thresh out the whole question. Then band together and oppose the Bill. It is essentially a question for the general practitioners to decide, not one for consultants, who know little of the struggling practitioner's difficulties, and probably what in earlier life they have learnt has now been forgotten. Again, practitioners fifteen, nay, even ten years, ago had not to contend against the evils which exist to-day.—I am, etc.,

Bedford, Feb. 27th. S. J. ROSS.

MEDICAL CONTRACT WORK IN THE COUNTY OF DURHAM.

SIR,—In the county of Durham we are in the midst of a struggle to obtain a higher rate of pay from the miners of the collieries; in some parts we have succeeded beyond expectation; some are wavering and some are in direct opposition to the change. With patience and gentle forbearance we shall get all to agree to the increase. Our present danger is from those of our own profession who may step in and accept the old terms. I ask for your powerful aid in preventing any such occurrence.

Members of the Medical Union are working shoulder to shoulder, and will stoutly resist the invasion of strangers; and those of our number who may suffer loss from temporary suspension of pay will be assisted by their more fortunate brethren.—I am, etc.,

EDWARD JEPSON,
February 27th. President of the Durham Medical Union.

THE KANTHACK MEMORIAL FUND.

SIR,—I sincerely hope the profession will make a prompt and hearty response to the appeal published in the BRITISH MEDICAL JOURNAL of February 25th. Of the late Professor Kanthack nothing but good can be said, and his premature and unexpected death came as a great shock to many who had the good fortune to hear and profit by his brilliant lectures on bacteriology and pathology at St. Bartholomew's. Dr. Kanthack was an enthusiast in the best sense of the word. His kindness and courtesy were unbounded, and his smile conveyed a hearty welcome to all. All who knew anything of him must have rejoiced at his well-merited promotion, and it is not at all surprising to read that he gave so freely of his means for the promotion of the science he lived to adorn. We cannot again see his intellectual face, nor hear his rich deep voice, nor marvel at his deft draughtmanship, nor wonder at the zeal and assiduity which, no doubt, contributed to the fell disease which cut him off in the flower of his manhood, but we can at least cherish his memory, and keep it fresh and green in the only way now possible, and he is poor indeed, both in pocket and in spirit, who will refuse his mite to the bereaved widow and to the cause of science, which is the poorer for the loss we all deplore.—I am, etc.,

East Sheen, Feb. 27th. ALEX. MCCOOK WEIR.

OXYGEN INHALATIONS IN THE TREATMENT OF ACUTE AND CHRONIC DISEASES OF THE LUNGS.

SIR,—The use of oxygen in the above conditions is nothing new, better known, perhaps, than appreciated. Oxygen used in such cases may be said to have three distinct actions. (1) It offers increased facilities for the oxidation of the blood and consequent stimulation of the nerve centres. (2) It alters or profoundly modifies the toxins of certain micro-organisms, and retards their growth. This latter effect has been pointed out in reference to the diplococcus pneumoniæ by Mr. St. George Reid. (3) It lowers the temperature of the body. In acute cases this is marked. In chronic cases, where it is continuously inhaled, the temperature is usually about a degree below normal.

The indications in using oxygen (especially in acute cases) are to begin soon enough and to continue long enough. It is no use waiting till the patient is moribund. As to the manner of using it, it is futile to simply let the gas loose in the room; it diffuses so rapidly that the hyperoxidation at which we aim cannot be thus accomplished.

To use it with a face piece or funnel is equally impracticable; what pneumonic patient could possibly tolerate this method? The sense of suffocation caused thereby is simply intolerable. The simplest and best way is by a tube passed into the nose. The tube terminates in a soft bulb, which is passed into the nostril, and retains it in position. The tube can be changed from one nostril to another at intervals of an hour or less. Patients stand this well for days and weeks together. The other end of the tube is attached to the gas bag. If a light book or magazine is placed on the bag a thin stream of oxygen is forced into the naso-pharynx, and at once diffuses, and is taken into the lungs with the inspired air. Using it in this way we can estimate exactly the amount of extra oxygen inhaled.—I am, etc.,

GEORGE STOKER, M.R.C.P.I., etc.

Hertford Street, Mayfair, Feb. 28th.

MEDICO-LEGAL.

COMET; EX-CLUB DOCTOR; EAGLEHAWK.—All these cases appear to be matters upon which a solicitor should be consulted.

CONSTRUCTIVE MURDER AMENDMENT.

THE Bill introduced into the House of Commons by Mr. Ambrose, Q.C., and read a first time on February 21st, which is backed also by Sir Andrew Scoble, Mr. Abel Thomas, Q.C., and Mr. R. A. Yerburgh, is printed below, together with the memorandum by which it is prefaced.

MEMORANDUM.

In the report of the Criminal Code Bill Commissioners, 1879, page 23, for the purpose of illustrating the doctrine of constructive malice in charges of murder, the Commissioners (Baron Blackburn, Mr. Justice Barry, Sir Robert Lush, and Sir James Fitzjames Stephen) say:

> "The common law definition of murder is 'unlawful killing with malice aforethought.' Manslaughter may in effect be defined as 'unlawful killing without malice aforethought.' The objection to these definitions is that the expression 'malice aforethought' is misleading............The inaccuracy of the definition is still more apparent when we find it laid down that a person may be guilty of murder who had no intention to kill or injure the deceased or any other person, but only to commit some other felony, and the injury to the individual was a pure accident. This conclusion was arrived at by means of the doctrine of constructive or implied malice. In this case, as in the case of other legal fictions, it is difficult to say how far the doctrine extended."

And for the purpose of illustrating the doctrine of constructive malice the Commissioners state the following case from Sir Michael Foster (p. 258):

> "A. shooteth at the poultry of B., and by accident killeth a man; if his intention was to steal the poultry, which must be collected from circumstances, it will be murder by reason of the felonious intent; but if it was done wantonly, and without that intention, it will be barely manslaughter."

The Commissioners then make the following comment on the law as above stated:

> "It seems to us that the law upon this subject ought to be freed from the element of fiction introduced into it by the expression 'malice aforethought.'"

The present Bill is intended to carry out the recommendations of the Commissioners that the law upon this subject should be freed from the fiction of constructive or implied malice, and if carried, will prevent juries from having to find verdicts that are untrue in fact, and will relieve the Home Secretary from having to intervene to prevent death sentences being carried out when there was no real murder.

The title of the Bill is "A Bill to Amend the Law of Murder with reference to the doctrine of Constructive or Implied Malice," and the two principal clauses read as follows:

1. On and after the commencement of this Act, upon a trial for murder, no constructive or implied malice shall be imputed to the accused merely because it is shown that he caused the death of the deceased by or in the course of the commission of or attempt to commit some other felony.
2. Nothing in this Act shall operate to prevent any person who shall have killed or caused the death of the deceased from being convicted of the offence of manslaughter, or of the offence in the commission of or attempt to commit which the death of the deceased shall have been caused, nor shall it prevent or restrict any presumption arising from the circumstances of the case as proved other than the constructive or implied malice mentioned in the preceding section.

CENSURE ON A MIDWIFE.

AT an inquest held at Walthamstow recently as to the death of a woman, aged 32, the jury found that the deceased died from septic poisoning, and in a rider expressed an opinion that Mrs. Avenall (the midwife who had attended her) was deserving of the highest censure for not paying sufficient attention to the symptoms of the patient, and overlooking her condition until it was too late. The husband of the deceased woman stated that he had understood Mrs. Avenall to be a fully-qualified and certified midwife, and to be really a "lady doctor." Four days after the confinement he noticed a great change in his wife, and thought a doctor should be called in. Dr. R. J. Woolf found the patient semiconscious and in a practically hopeless condition. Death occurred on the ninth day after the confinement, and was due to septicæmia, due to neglect and lack of necessary cleanliness. The midwife stated that she held a diploma of the Obstetrical Society; she did not take the patient's pulse or temperature, nor use any antiseptic. She denied that she set herself up as a lady doctor. The coroner read a circular issued by Mrs. Avenall "accouchier," as follows: "Mrs. Avenall begs to inform ladies in favour of female obstetric attendance that she passed successfully the curriculum of the Ladies' Medical College, and obtained a certificate of honour by examination from the under-mentioned professors. She also attended courses of lectures on hygiene, materia medica, and diseases of infants. Mrs. Avenall passed through an examination course of practice at and obtained a clinical certificate from the City of London Lying-in Hospital. The diploma of the Obstetric Society of London was also granted to her." The jury found that death was due to septic poisoning, and added the above rider censuring the midwife. The coroner remarked that the jury would have been justified in returning a much stronger verdict, but they had taken a merciful view of the case. The midwife stated that she was 71 years old, and would never take another case. The names of the professors are not given in the report before us, and our inquiries as to the existence of a ladies' medical college have been without result.

THE INEBRIATES ACT AND THE LONDON COUNTY COUNCIL.

AT the meeting of the London County Council this week it was resolved to exercise the powers conferred under the Inebriates Act, 1898, and a Special Committee was appointed to prepare and submit a scheme. The Committee consists of the following members: Dr. W. J. Collins, Dr. G. J. Cooper, Mr. W Crooks, Mr. J. S. Fletcher, Dr. E. B. Forman, Mr. W. N. Hubbard, Mr. J. McDougall, Sir Henry B. Poland, and Mr. Nathan Robinson. This Committee will consider whether it will be better for the Council to erect a new building, or to acquire one already erected. A provisional estimate was given that a reformatory for 100 inmates would cost from £14,000 to £22,000, according to the character of the building. From inquiries previously made by the General Purposes Committee, it appears that it is not improbable that during the first year about 100 males and 200 females will be dealt with under Section 11 of the Act of 1898, which applies to persons who are convicted of having been drunk in a public place, or in a public conveyance, or in charge of a vehicle. The Special Committee now appointed will also consider whether the Council should contribute towards the establishment or maintenance of a retreat for the reception of persons who, being habitual drunkards but not convicted, are willing to place themselves under care for a period. As the Council under the new Bill has become the licensing authority for retreats in London under the Act, it is directed to report also as to what committee should be referred the duty of considering and reporting on applications for licences for retreats.

UNDERTAKERS AND STILLBIRTHS.

THE members of a body known as the British Institute of Undertakers has drawn up a petition to Parliament drawing attention to the present unsatisfactory arrangement with regard to stillbirths The petition points out that the present requirements for the purpose of interment of a stillborn child are as follows:—The production to the cemetery authorities of what purports to be a certificate of the delivery of such stillborn child by a medical practitioner or a midwife. No registration with the district registrar of such delivery is required by the enactments now in force. The petitioners state that they experience great difficulty, responsibility, and inconvenience in accepting what purports to be the certificate of a medical practitioner or a midwife as to the birth of a stillborn child, as in many instances they are written upon scraps of paper, backs of envelopes, and sometimes in pencil. They have no ready means of testing the veracity of such unsatisfactory documents, nor, with a few exceptions, do the cemetery authorities object to them. The petitioners further state that they have grounds for the belief that the present unsatisfactory mode of certifying the birth of a stillborn child, is open to serious abuses, which could be avoided by a proper certificate being issued by a proper authority. They conclude by suggesting that a select committee should be appointed to inquire into the question, and to devise a remedy for the evils complained of.

THE TITLE OF PHYSICIAN.

M. W. sends us the following question: Is a L.R.C.P.Lond. entitled to put "physician" only on his door plate?

*** We have always supposed that the answer to this question was in the affirmative, but the judgments given by Mr. Justice Lawrance and Mr. Justice Channell in the case of Hunter *v.* Clare, reported in the BRITISH MEDICAL JOURNAL of January 28th, appear to restrict the meaning of the word "physician." The decision of these learned judges has undoubtedly caused further confusion to arise on the vexed subject of medical titles. Why does not our correspondent address his question to the College from which he received his diploma?

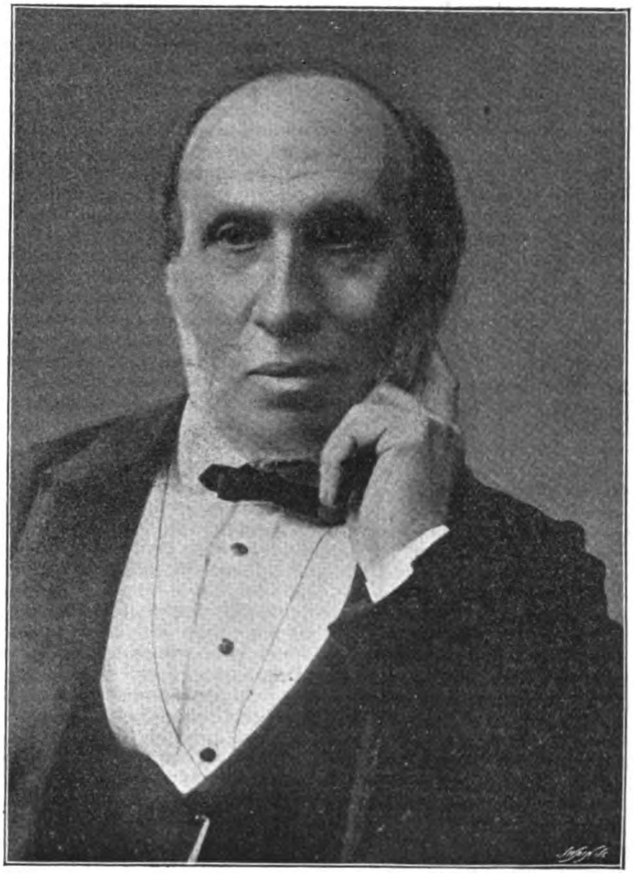
AT the annual meeting of the Surgical Home for Boys, Banstead, it was reported that 85 new cases had been received during the year, and there were 21 patients in the home, which contains 25 beds. The majority of the patients are sent in from London hospitals. The building stands in its own grounds. The fine, pure, dry air of Banstead is found to prove very beneficial to the many cases of tuberculous disease sent to the home, and only 1 death occurred during the year.

OBITUARY.

SIR JOHN STRUTHERS, M.D., F.R.C.S.E., LL.D.

Emeritus Professor of Anatomy in the University of Aberdeen; Vice-President of the Royal College of Surgeons of Edinburgh.

ANOTHER of the great figures of the Edinburgh Medical School has disappeared—Sir John Struthers, who died on February 24th. Although Professor of Anatomy in the University of Aberdeen from 1863 to 1889, where he succeeded Allen Thomson and Alexander Jardine Lizars, his memory will always be associated with the Edinburgh School. He was only lent to Aberdeen for a time. A pupil of Monro Tertius; a Lecturer in the Extra-Academical School from 1847 to 1863; Goodsir's substitute for a year; a Fellow, President, and Vice-President of the Royal College of Surgeons; a laborious worker for, and benefactor to, the museum, library, and laboratory of that College; a President of the Royal Physical Society; a Manager of the Royal Infirmary; Chairman of the Managers of Leith Hospital—he was bound up with Edinburgh and her medical institutions.



John Struthers was born at Brucefield, Dunfermline, in 1823, and was educated privately; he was the second of three brothers, who all became members of the medical profession. The eldest (James), after a brilliant academic course, settled in Leith, where he remained till his death in 1891, and where his name is to this day a heritage. The youngest brother went out to the Crimea, where he was associated with Dr. Patrick Heron Watson, and the late Dr. Greig of Dundee, and where he died of fever in 1855. John entered on the study of medicine at the University of Edinburgh in 1841, took his M.D. degree in 1845 at the same time as his life-long friend Sir William Gairdner, and in the same year he received the Fellowship of the Royal College of Surgeons.

He had not a high opinion of the teaching of anatomy in his day, for, writing in July, 1889, he says: "In my student days, in the Edinburgh School, anatomy was at its lowest ebb in the University under the third Monro; there was no comparative anatomy in the school except the silent museum Dr. Barclay had left behind him in the Royal College of Surgeons; Dr. Knox was gone; John Goodsir had not then arisen with the microscope and his morphology; the embryology of Allen Thomson, though original was then descriptive only; there was no anthropology; Owen's *Homologies of the Vertebrate Skeleton* had not yet appeared, still less had Darwin come with his interpretation of the facts. Surgical anatomy was well taught, admirably so by Spence my early teacher in that, and afterwards my respected surgical colleague of many years." He often to the present writer spoke with deep regret of the precious time he had wasted under the third Monro.

On October 22nd, 1847, he was licensed by the Royal College of Surgeons to teach anatomy in the Extramural School of Edinburgh, and such was the opinion entertained of him that during Goodsir's illness in the winter session of 1853-54, Struthers was asked to take his place.

In 1854 he was appointed one of the Assistant Surgeons to the Royal Infirmary; he had previously been a Resident Surgeon, and a few years later he was made a full Surgeon, and continued to hold the office till he went to Aberdeen. But his interests and his work were in anatomy.

In 1863 he was appointed to the Chair of Anatomy in the University of Aberdeen. He at once set himself to the reorganisation of the whole teaching of anatomy there; he resented mere dry-as-dust lecturing, insisted on his students having "their eye on the object," and made a museum of anatomy such that it had then few equals in the kingdom. He largely made the Medical School of Aberdeen. Not satisfied with the work of his Chair, he instituted and continued for many years Saturday evening lectures for the people which were largely attended and greatly appreciated. He became a member of the University Court, where he never failed to keep the claims of medical education in the forefront. He was a member of the Board of Directors of the Infirmary, and worked hard to have it reorganised and practically rebuilt. From 1883 to 1891 he was a member of the General Medical Council. Here he urged an extension of practical work and a diminution of pure lecturing, the institution of research laboratories, the extension of the medical curriculum to five years, the raising of the standard of the medical preliminary, the institution of a preliminary scientific year with physics as one of the obligatory subjects, and the registration of diplomas in public health. In 1881 he established a medal and a prize for anatomy in the University of Aberdeen.

He was not content to confine himself to purely medical questions. His mental outlook was much wider. Thus he urged the development of the University Local Examination Scheme, and the plans for university lectures. In 1885 the University of Glasgow conferred on him the honorary degree of LL.D.

On his retirement from the Aberdeen Chair in 1889 he returned to Edinburgh, and at once threw himself with zest into work of various kinds. He became Chairman of the Board of Directors of Leith Hospital, and worked to secure the extension of that hospital to a hundred beds, so as to fulfil the academic requirements of a hospital giving qualifying courses of clinical instruction. He was elected a manager of the Edinburgh Royal Infirmary, where he worked vigorously in all matters of detail, especially to improve and extend theatres for operation. He was a member and President of the Royal Physical Society, and a manager of the Royal Dispensary. In 1892 he was made an honorary member of the Royal Medical Society, and in the same year he was presented with his portrait, painted by Sir George Reid, the President of the Royal Scottish Academy, by a number of his former pupils. A replica now hangs in the University of Aberdeen. From 1895 to 1897 he was President of the Royal College of Surgeons, where his energies were directed to the reorganisation of accommodation for the examinations of the

Triple Board, etc., to the extension and improvement of the museum, to additions to the library, and to the establishment of a laboratory. His whole heart was in the College, and he was a great benefactor to its museum. From 1897 till his death he was Vice-President and an Examiner. In 1898 Her Majesty conferred on him the honour of knighthood.

The list of his published writings is a long one, from the first in 1848, On the Supracondyloid Process, to the last in October, 1896, On the Medical School of the Future, where he urged, as he so long and so often did, a return to Nature, to objective teaching, to a greater amount of practical instruction and less lecturing. In 1889 he printed, for the use of present and former pupils, References to his papers in Anatomy: Human and Comparative. That list includes seventy separate publications, thirty-six during his Edinburgh period, the rest during his Aberdeen professorship. In a prefatory note to these References, he says with characteristic frankness:

> I have to express my painful regret that more and better work has not been accomplished. The consumption of time in the Anatomical School, practically the whole day, winter and summer; in Aberdeen the forming of a museum of anatomy—human and comparative—the advancement of the medical school, and the calls of university business; the distraction of numerous projects in medical legislation threatening injury to the higher education in Scotland, requiring to be met—have all encroached seriously on my time for research. All along that has had to be relegated to the night and to holiday times. A number of researches yet unfinished may, or may not, be completed, according as health and strength remain.

Subsequently to 1889 there were nine more papers. Of the seventy publications enumerated in the References, the earlier were reprinted in *Anatomical and Physiological Observations*, Part I, 1854, Part II, 1864. In 1863 we have a description of a new craniometer. His *Historical Sketch of the Edinburgh Anatomical School*, published in 1867, is an invaluable piece of historical work. "At some future time," he wrote, "I hope to be able to resume this sketch." But alas, the pen is now laid aside for ever. In 1871 we have a paper on Some Points in the Anatomy of a Great Fin Whale; in 1881 on the Bones, Articulations, and Muscles of the Rudimentary Hind Limb of the Greenland Right Whale: On the Anatomy of the Hump-back Whale in 1887-89; and again on the same subject in 1893; and in 1895-96 On Separate Acromion Process, with Appendix on Subcoracoid Dislocation of the Humerus.

Such in brief outline was his life's work. He was a man of indomitable energy and perseverance. He was never idle. He was a born reformer and organiser. Of course he met with keen opposition; every reformer does. Others with better knowledge and longer experience will add their tribute.

During the winter of 1897-8 he had a severe attack of influenza with a slow recovery of strength. He had been obviously failing before this. In May, 1898, he went to Norway and returned without much benefit. He was President of the Section of Anatomy of the annual meeting of the British Medical Association at Edinburgh last year and took the chair on several occasions, although it was evident that the effort cost him much. He spent the summer of that year in Peebles with some improvement of strength. On his return he began to suffer from localised abdominal pain, which disappeared later. Weakness however steadily increased, and about five days before the end right pleural effusion developed. Aspiration afforded only temporary amelioration of his symptoms, and he gradually sank and passed away quietly at 7 A.M. on Friday, February 24th. The cause of death was ascertained to be malignant new growth in the splenic flexure of the colon with secondary involvement of the liver.

Dr. Struthers married a daughter of Dr. Alexander, of Wooler, and had a family of four daughters and three sons. The three sons all entered the medical profession. His eldest son died some eight years ago. the second some years later. The third is now one of the Residents in the Royal Maternity and Simpson Memorial Hospital of Edinburgh.

STRUTHERS AS A TEACHER.

Dr. Joseph Bell, one of his old pupils, writes: I have been asked, probably from the fact that I must now be one of his oldest pupils, to note my impression of my late revered teacher, Sir John Struthers. More than forty years ago I went as a first year's student to his dissecting room, and boy as I was, the impression was given to me that here was an enthusiast in the details of anatomy, and that idleness, want of precision would not suit him. His gravity and maturity—he was not much over 30, but as a young man he looked old, while as an old man he looked young—added weight to his teaching even of the bones. Many of us owe much to the care with which he taught, and the example he gave of patient, earnest industry. While still teaching anatomy at Surgeons' Hall Struthers was appointed Assistant-Surgeon to the Royal Infirmary, and when he got the chance did operations and taught in the wards. He was never a brilliant surgeon; possibly he thought too much of anatomical details, but he was very anxious to make the best work in each case that was possible, and spared no pains in after-treatment, even returning to visit his cases in the evening. In those days it was not thought any bar to operating at 12 that the operator had been dissecting all the morning. Others can speak of the marvellous work Struthers did in Aberdeen; how he found a small school with appliances for teaching anatomy, and how he left it one of the best-equipped anatomical departments in the kingdom. We used to see him occasionally on his visits south, and watch his work in the General Medical Council. It was only on his return to Edinburgh in 1889 to enjoy his well-earned leisure that we began to see much of our old master. His idea of leisure was constant work, and his activity bodily and mental, sought various lines of usefulness. One great duty he set to himself was to improve Leith Hospital and to raise up in it a teaching school. For this he had two strong motives. One was to increase the amount of clinical teaching available for the great Edinburgh Medical School. This school has sometimes been accused of possessing too little clinical material for the proper training in practical work of its numerous students. To add another hospital in a seaport town within two miles of the University seemed to Struthers a wise course.

The second strong motive for his work in Leith was the love he bore to the memory of his brother, James Struthers, who had for nearly half a century held the foremost place in Leith as a family practitioner. He had worked in Leith Hospital, had showed a deep interest in its welfare, and that was enough to make John devote his time and talents to its service.

To the Royal Infirmary of Edinburgh, when elected to the Board of Management as a representative of the Royal College of Surgeons, he also did yeoman service. The pathological department operating theatres owed much to his zeal and the endless trouble that he took for their enlargement and improvement. Probably Struthers felt it the greatest honour and pleasure of his life when he was elected to the honourable office of President of his College. Its very dust to him was dear. He loved it with a passionate and touching devotion; its antiquity, its association with the great surgeons of past generations, were topics on which he loved to dwell. It was almost comic, had it not been so real, to notice how little he made of universities and other corporations when compared with his beloved College. Mushrooms!

What he did for the College, how royally he spent her money and improved her surroundings, his unselfish devotion to the museum and the laboratory, will be told by abler pens than mine; but certainly no man loved his College more, or more unselfishly, than the Vice-President whom we now mourn.

As a friend he was constant and sincere, not a man of phrase or flattery. He would tell you your faults and mistakes with absolute sincerity, and sometimes he would be surprised that his remarks were taken amiss. His tireless industry, his tenacity of purpose, made him a formidable antagonist in a debate or a controversy. He had the fine quality that he did not know when he was beaten. He sometimes provoked the other side unnecessarily by a sort of cocksureness he showed in his being in the right, which indeed he generally was. Those who disagreed in his views—and they were many—had always to own that Struthers was working for a cause or a college, and not for his own pocket or position.

It was sad during those last months, when the hand of Death was obviously in the air, to hear the brave old man planning fresh work, preparing to face fresh controversy, such as his soul always loved, and with a strange youthfulness watching the progress of science and the advances made by younger men.

STRUTHERS AS AN ANATOMIST.

Mr. C. W. Cathcart, M.B., F.R.C.S., Conservator of the

Museum of the Royal College of Surgeons of Edinburgh, writes: Sir John Struthers, on returning to Edinburgh in 1889, seemed to feel that he never could do enough for the Royal College of Surgeons of Edinburgh, with which he had had so many happy associations in his early days. He was one of those whose mind never grows old; in every sense of the word he was an evolutionist, always striving after improvement, and using every achievement as a fulcrum on which to raise something else. He had leisure, energy, and untiring perseverance, and these qualities he focussed on the welfare of the College. The museum he considered a most important means of medical education, and he spared neither time nor trouble on its behalf. He enriched it with a valuable collection of specimens, chiefly of normal anatomy, and spent many uncounted hours in labelling and superintending the mounting of the specimens. Not satisfied with the lighting of the museum, he suggested an enlargement of the windows, and with characteristic energy saw carried out a work that has made many parts of the museum like a new place. Those who were officially connected with the museum during his term of office as President found him always on the look-out for suggestions, but while never unwilling to accept new ideas from others, he initiated the majority himself. The same endeavour to improve has left its mark on other departments of the College. He was instrumental in providing a series of special examination rooms for the Triple Qualification, and he gave much personal help and advice in the rearrangement of the library. Finding himself unable to carry out a scheme for union with the Royal College of Physicians in the management of their Research Laboratory, he never rested till he had seen the Fellows of the Royal College of Surgeons provided with a laboratory of their own. This was his favourite scheme in the declining months and weeks of his life. When his friends came to see him the prospects of the laboratory were never omitted from the subjects of discussion, and he always hoped to be up again soon in order that he might help to have it established in active usefulness.

Realising the importance of original research, Sir John Struthers, by his energy and personal influence, reinstituted occasional lectures by Fellows before the College, and revived special prizes for original observation and research. What has just been stated is merely an outline, to enumerate all the details would perhaps seem tedious. Enough has been said, however, to indicate the spirit and capacity of the man, and to show that he deserves to be reckoned as one of the great benefactors of the Royal College of Surgeons of Edinburgh in influence as well as in deed.

A Friend of Half-a-Century writes: Struthers was an equally early and earnest worker in anatomy. In 1843 or '44 the Anatomical School of No. 1, Surgeon Square, under Handyside, Lonsdale, and Spence, may be said to have seen his *coup d'essai* as a teacher. Many an unfinished and forsaken "part" he used there to take up and work out for his own delectation and instruction. He was of rather a severe and caustic temperament, but nevertheless could enjoy a joke. Handyside was the draughtsman of the establishment, and his diagrams in many-coloured chalks, although unique in their way, were indubitably instructive. Very frequently, for the sake of economising space, they occupied both sides of the blackboard, which was turned when the design on one side had served its purpose. On reversing the board one day the drawing disclosed was a diagram in red, blue, and white of the vascular structures in a cone of the kidney, but underneath some wag in the class had surreptitiously and beforehand written, "Eruption of Mount Vesuvius." The resemblance was too recognisable even for the staid and majestic Handyside, who at once gave way. Struthers often talked of this long afterwards with great gusto. He used with a vein of sarcastic humour frequently to allude to the defects of some of his early anatomical teachers, and playfully described how he had been out of pocket by having to attend two sets of lectures on this subject at the same time, one for graduation and the other for educational purposes—a state of things which his efforts materially contributed to improve.

PROFESSOR STRUTHERS AND ABERDEEN UNIVERSITY.

Our Aberdeen correspondent writes: In the death of Sir John Struthers Aberdonians must feel the loss of the man who perhaps of all others has done most for the Aberdeen School of Medicine. Appointed to the Chair of Anatomy in 1863, when the roll of students numbered 150, he resigned his post in 1889, at which time the students had increased to over 400, and it may justly be said that this increase was in large measure due to his energy. He came to Aberdeen at the age of 40 with much experience as a teacher, with an infectious enthusiasm in his subject which he viewed from the broad ground which his own researches in comparative anatomy had opened for him, and with the greatest ambition for the advance in reputation of the University which he had joined. It is difficult to realise nowadays, in the luxury of new buildings and with the number of teachers in special subjects which the present Medical School enjoys, what difficulties Struthers had to meet and overcome in the midst of prejudices and old-world estimates of the importance of instruction in medical science; but fortunately for the school, though perhaps not in all instances to the advancement of harmonious relations with his colleagues, Struthers was essentially a fighting man, and he carried his way. And though since his time the University has made immense progress in many ways, as a teaching university it must be heartily acknowledged that it was Struthers who roused the school, and who by his strenuous work gave the impetus towards progress and development which has been so excellently carried on and extended by his later colleagues and successors.

Struthers, by his abilities as a lecturer, by the individual interest which he took in students, not only in his own subject, but throughout their course, by the great extensions and improvements of his department, by the untiring and successful labour he bestowed on the formation of an excellent anatomical museum, by the important part he took in the establishment of medical bursaries, and by his constant interest and activity in all questions affecting the University as a whole, would for these causes only have acquired a very high reputation in Aberdeen.

But the scope of his life's work was far wider. He interested himself strongly in medical legislation, appeared frequently before Commissions of the House of Commons as a delegate of the Scotch Universities or as witness in matters of University Reform. He was appointed to the General Medical Council in 1883, and in his important report as Chairman of the Education Committee of the Council in 1890 showed his knowledge of systems of university education not only in Britain, but on the Continent. The value of his work on the Council was warmly acknowledged when he retired in 1891.

The reputation of Struthers as a comparative morphologist was high. He was an authority on the anatomy of Cetaceæ, and his memoir on the Anatomy of the Humpback Whale was a monument of careful and most useful research.

While at Aberdeen he took an active interest in the management of the infirmary and other public institutions; he was highly appreciated as a popular lecturer on scientific subjects, and he was President of the Medico-Chirurgical and Philosophical Societies, and was one of the foremost in securing the meeting of the British Association in the city in 1885, and in ensuring its success.

Though for the last nine years Professor Struthers has resided in Edinburgh, his memory is still very living in the University of Aberdeen, and his name will be handed down as that of a striking personality, a keen fighter, a kind-hearted friend to students, and one to whose memory the School of Medicine at Aberdeen will always owe the deepest gratitude.

FUNERAL.

The funeral of Sir John Struthers took place on Monday, February 27th, at Warriston Cemetery. There was a large attendance of university professors, of public men, and of prominent members of the medical profession. The pall-bearers were Dr. John W. Struthers (son), John Alexander (brother-in-law), J. G. Murray (nephew), the President of the Royal College of Physicians (Dr. Andrew), the President of the Royal College of Surgeons (Professor John Chiene), Professor Crum Brown, Dr. Alexander Bruce, and Mr. G. V. Mann, S.S.C.

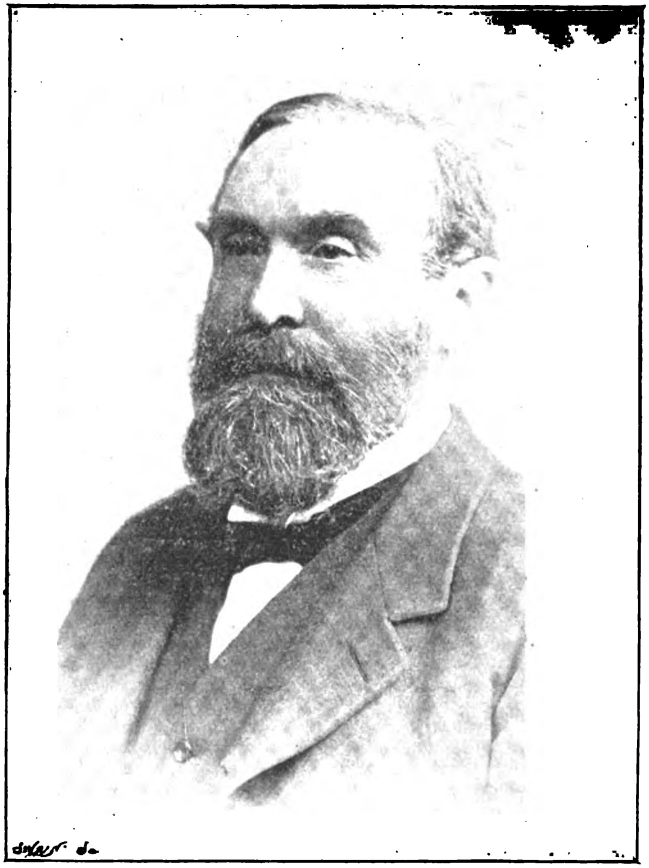
THE German Public Health Association, on the invitation of the magistrate of Nuremberg, will hold its general meeting this year in that city from September 13th to 16th.

WILLIAM RUTHERFORD, M.D., F.R.S.,

Professor of Physiology in the University of Edinburgh.

As we briefly announced last week, Professor Rutherford died of influenza on February 21st. We are indebted to an old fellow student and close friend for the following sketch of his life:

It is probable that no more difficult task could be undertaken than an appreciation of William Rutherford. Proud, shy, sensitive, resentful of injustice, he was no Laodicean, but one whose moral qualities made him loved and hated, misunderstood and admired, misjudged and enthusiastically applauded.



No doubt, as with all of us, the accidents of life as well as heredity largely determined his qualities. He was born on the Scottish Border, a region in which the characteristics of the people have been evolved under the stern melancholy of the desolate rounded hills that form the Southern Uplands, no less than by centuries of struggle and strife. He was the youngest of the large family of a farmer in Roxburghshire, and was educated at the grammar school of the district. He came to Edinburgh therefrom and entered on his medical studies a lad imbued with the traditions of his race and district. As a student he was reticent and retiring, but his readiness to respond to friendly advances, his ability and capacity for work, soon made him known to and the companion of the best men of his time. It is not merely the *laudator temporis acti* who would call that period a very brilliant one in the University of Edinburgh. The Chairs in the medical faculty were filled by giants, and of the companions of his student days many have been his colleagues in the University, in its extramural school, and in the higher walks of the profession throughout the world. That he held his own and in the end came out gold medallist and with an honours degree is proof of his mental calibre and determined industry. But these student days showed him also to be impressionable. His manners became elaborated, and his slight Border accent was over-corrected to that formal mode of speech which, still farther modified by subsequent experiences, became a second nature, and lasted through life.

A gold medallist and an honours man has little difficulty in obtaining appointments, and Rutherford became House-Physician and House-Surgeon to Haldane and Spence. These were days to which he often looked back with pleasure as days of splendid work and honest enjoyment. At that time there were none of the luxuries of modern residencies. A house-physician had only a single dingy sleeping apartment. But we managed to screw out of the managers a small recreation room, and while some of us introduced foils and single-sticks and boxing gloves, Rutherford brought up his favourite piano, and many an evening was spent in listening to his splendid bass as he introduced us to the Masters or sang his own compositions.

He now spent a year in demonstrating anatomy, a thorough knowledge of which is essential to all who aim at distinction in any branch of the profession. In the hard winter of 1865 he shivered with two student friends in Berlin, but laid the foundation in Du Bois-Reymond's laboratory of that knowledge of physiology, and especially of electrical physiology, which afterwards stood him in good stead. Thence passing to Dresden, Prague, Vienna, Leipzig, and Paris, he came home to receive the appointment of University Assistant to the Chair of Physiology. Professor Bennett was a prince among teachers, and there can be no doubt that Rutherford was much influenced by the perfect lucidity which was his master's chief characteristic. But he added to it the labour of research and preparation, so that his four years' assistantship established his reputation as a practical teacher, and, combined with his original investigations, procured for him the Professorship of Physiology at King's College, London. He threw himself into the work of that Chair with ardour. For the practical work his previous training had largely prepared him. But he determined that his lectures should be illustrated as no lectures had ever been before. His love of art and untiring energy enabled him, by himself and by superintending others, to produce in an incredibly short time a set of admirable diagrams for his first course, while the most precise and delicate experiments were, often with hours of work, prepared daily for the lecture table.

It was no wonder that when Professor Bennett resigned the chair Rutherford should have been appointed his successor. He returned from London to take up his duties not unaffected by his highly successful career, and with a full sense of the dignity of his office. Those mannerisms which had developed before he went were found to be accentuated with modifications on his return, and no doubt were partly the cause of some of the troubles which assailed him. But from that time, for five-and-twenty years, with undivided heart and soul, he devoted himself to his work as a teacher. No pains were too great to make even the most trivial experiment a success. No time was wasted which could add to the precision, the clearness, the all-embracing character of his lectures. This absorption in the work of teaching no doubt prevented him in later years from devoting so much time to those original investigations which in his earlier years had brought him so great distinction. But at least it had the effect of making his tenure of the Chair a brilliant success, a distinguishing ornament of the University of Edinburgh, and his death an irreparable loss.

Such a sketch of his career gives the impression of a determined, industrious man of great ability who commanded success. But the picture of Rutherford would be incomplete without further lights and shades. It would serve no good purpose to stir the ashes of old controversies, but one or two matters must be alluded to if we would have the man rightly understood.

His manner and mode of speech have already been alluded to. They were often spoken of as dictated by superciliousness, hauteur, vanity, carelessness of the feelings of others.

No doubt he thought it right to maintain his dignity, but the manner in which he did so was due to the overdoing of brusqueness to hide his real shyness, the affectation of calmness to hide his diffidence. He was at heart an exceedingly sensitive man, and was greatly afflicted by self-consciousness. The kindness of one pleased, as the unkindness of another hurt excessively; he dwelt upon and exaggerated both. His important investigations on the bile and on other subjects led him to perform experiments by vivisection. He thought it his duty to do it, and he rightly did it. But he was viciously attacked by certain people, Christian and other, and he felt it terribly—almost morbidly. There had been, for instance, such a thing as refusal to meet him at dinner, and he shrank from all but professional society for a time.

Under this strain, and weakened by unremitting toil, for a time his nervous system yielded, his mental balance and usual soundness of judgment were affected. Moreover, what recreation he indulged in was rather a variation of labour in the shape of metaphysical speculation and a study of Oriental religions. In this state he misinterpreted and unjustifiably resented on more than one occasion the gestures and actions of some with whom he was associated in his work. He was fiercely assailed in return, and efforts were made to drive him from his Chair. But his friends rallied round him and these efforts were unsuccessful; and, although it may be believed that his general health was never afterwards so thoroughly robust as it had been before, it is certain that his gratitude for this friendly support had the effect of mellowing and strengthening his mental and moral qualities, and that his life was more quietly happy. He entered with greater zest, for example, into the social life of the profession. Edinburgh is rich in associations meant to promote good fellowship and ameliorate the effects of the modern struggle for existence. From early in his career Rutherford had been a member of the Round Table Club, and, later, of the Æsculapian and others. At their social gatherings his musical ability and desire to please made him always welcome, and, as years went on, he derived more and more enjoyment from them.

There remains one distinguishing trait of Rutherford's character known to but few, though very strongly marked, which his outer crust hid from the many—the open hand and the open heart. His large professorial income was not selfishly spent; his keen intellect and great energy answered to every appeal for advice and help. The duties of kinship he amply fulfilled. His staunch friendship has been proved on more than one or two occasions by old friends, who have owed to him their deliverance from serious trouble and misfortune. To none of his teachers could a student in difficulty go with greater assurance of satisfactory response. He was in all these relations generous not only with money but with time and effort.

It can easily be seen that, outside his profession and his immediate friends, Rutherford's relationships were not extensive. But where he did occupy such a position as that of manager of the Royal Infirmary he was the same painstaking, keen, masterful man that he was as Professor of Physiology in the University of Edinburgh.

We are indebted to an old friend of Professor Rutherford's for the following estimate of his services to physiology:

When speaking of his predecessor in the chair of the Institutes of Medicine—the late Professor Hughes Bennett—Rutherford said that Bennett had indelibly "stamped upon the physiological department of Edinburgh University the impress of his great energy and his vast ability." With equal truth the same may now be said of Bennett's pupil and successor. Rutherford's experience gained when House-Physician and House-Surgeon under Dr. R. Haldane and Professor Spence was of great use to him in after-life, but more particularly was it of importance to the University and the Royal Infirmary itself, for as representative of the University on the Infirmary Board he could speak with that assurance which comes of practical experience.

The training he received as demonstrator of anatomy under Struthers satisfied part of his morphological bias, and the friendship begotten of the relationship between teacher and pupil was lasting and enduring. It is, indeed, sad to think that an interval of only a few days elapsed between the deaths of Rutherford and of Sir John Struthers.

A further basis for future usefulness was laid by means of visits to Berlin, Paris, Vienna, and Leipzig, the great fame of Ludwig attracting him to the last-named University.

Whatever else he was, Rutherford was undoubtedly a great and gifted teacher—a teacher of the highest order. In many respects unlike Hughes Bennett, both, however, were alike in this—that they were men of clear and logical intellect, and both had that methodical quality of mind which made them great teachers.

Professor Hughes Bennett has the great merit of being the first to institute in this country a class of practical physiology, and Dr. Argyll Robertson was his first assistant. Rutherford succeeded to this position in 1865, to be followed by Dr. McKendrick in 1869. Gradually the methods of practical teaching became more and more perfected under these successive demonstrators until they became a pattern and example for other medical schools.

Bennett's course at first was entirely histological, but thanks to the labours of the demonstrators under Bennett's supervision, it came ultimately to embrace chemical and experimental physiology. The simple histological methods were taught, but textbooks were not plentiful. Rutherford, who had a remarkable memory, dictated the chemical part from memory without notes. The experimental part consisted of the demonstration of experiments rather than of actual experiments done by the student himself. The time was not yet ripe for that development.

Appointed in 1869 to the Chair of Physiology in King's College, London, Rutherford carried with him a thorough knowledge of those methods of practical teaching which have largely helped to make the University of Edinburgh so famous as a great school of medicine. His influence soon made itself felt, and his fame as a teacher spread in the metropolis, where he acted under Huxley with Michael Foster and Lankester in connection with the South Kensington scheme of education and examination.

Besides his professional work in King's College he lectured with great acceptance as Fullerian Professor of Physiology in the Royal Institution. In his lectures there he largely followed the example set by Tyndall, making copious use of elegant demonstrative methods to enforce his facts and rivet the attention of his audience.

On the death of Professor Hughes Bennett in 1874, Rutherford was appointed to fill the Chair of the Institutes of Medicine. Bennett was elected to the Chair not merely on account of his claims as a physiologist, but because he was also a pathologist and a physician, for up to this time the Professor of Physiology had usually been a practical physician. With Rutherford's occupancy of the Chair all that was changed; he resolved to eschew practice; he took no part in clinical teaching, a department in which his predecessor proved himself so brilliant and successful. He resolved to devote all his energies and abilities to the duties of his office, and he never spared himself while perfecting and organising his department.

His lectures were lucid, clear, and attractive; his facts were marshalled and arranged in logical array—the result of great care and labour bestowed on their preparation, his aim being to present his subject not only in an attractive form, but in such a way that it could be grasped by the youthful mind, for he knew well the student's difficulties. He knew how to select the salient facts and to give them an appropriate setting and application, so that while teaching physiology as a science, his past training as house-physician and house-surgeon enabled him to give those facts a practical application to the art of medicine.

His preparations for each lecture were thorough. The exhibits, experiments, and diagrams had all to be faultless, and many an afternoon and evening were spent in making and devising apparatus and rehearsing experiments until they could be presented in an attractive and faultless form to his students. Nothing that was "indifferent well" or slovenly would he tolerate, and everything was as accurately and carefully arranged as human foresight and previous study and application could ensure. Diagrams had to be arranged in an orderly, logical, and symmetrical fashion; exhibits displayed to the best advantage from the point of view of the student.

His capacity for taking pains was infinite. Everything was accurately catalogued, so that anything wanted could be found at a moment's notice and referred to at once.

Rutherford's literary career practically began with his thesis for M.D. (1863), for which he received a gold medal. The first volume of the *Journal of Anatomy and Physiology*, founded by the late Sir G. M. Humphry, of Cambridge, and Sir William Turner, appeared in 1876. To this journal for several years, either independently or in conjunction with his intimate friends, Drs. Thos. R. Fraser, D. Ferrier, and A. Gamgee, he contributed reports on the progress of physiology—a sort of quarterly or half-yearly *Centralblatt*. In the early volumes of this journal also will be found many of his papers on more purely physiological subjects.

Electro-physiology in the middle of the century has received a great impulse from the researches of Du Bois-Reymond (Berlin), Helmholtz and Pflüger (Bonn). In 1859 Pflüger published his great work on *Electrotonus*. In the journal above named (1868) Rutherford gave an account of the demonstration of this phenomenon, at that time regarded as a most recondite subject. With Helmholtz's measurement of the velocity of a nerve impulse in a nerve fibre new problems were opened up in nerve physiology, and time as a factor in the simplest nerve processes was established. Pflüger, in his "avalanche hypothesis," advanced the view that the nerve impulse increases in velocity as it sweeps onwards along a nerve. In his paper on the Relative Excitability of the Different Parts of a Spinal Nerve in the *Journal of Anatomy and Physiology*, 1871, Rutherford combated this theory, and gave several striking experiments in support of his view. It is interesting to note that Mr. H. Power, when Rutherford made a communication on this to a London Society, asked the question whether the relative thinness of the nerve sheath had anything to do with the inequality of excitability of different parts of a nerve.

In a paper on A New Lesion of the Brain, published in the *Edinburgh Medical Journal*, 1868, in conjunction with his friends Dr. Batty Tuke and Dr. Skae, his histological bias began to show itself. For the proper localisation of the areas affected, these authors adopted the then novel classification of the cerebral convolutions propounded about that time by Sir William Turner.

For some years, influenced by the teaching and example of C. Ludwig of Leipzig, for he studied for a short time under Ludwig at Leipzig, he worked at the Influence of the Vagus on the Vascular System. He published his results in several forms, but most fully in the *Transactions of the Royal Society of Edinburgh*, 1870. As an offshoot from this subject, he explained the cause of retardation of the pulse which follows artificial or voluntary closure of the nostrils of a rabbit not as due to reflex inhibition through the afferent nasal nerves, but as due to alteration of the gases of the blood itself (*Journal of Anatomy and Physiology*, 1871).

His constant desire to devise models and schemata to simplify the work of the student, and to facilitate the comprehension of difficult subjects, led in 1872 to his making—after the method of Weber—a New Schema of the Circulation (*Journal of Anatomy and Physiology*), and his well-known working model of the heart—the latter a sheep's heart ingeniously arranged with tubes and funnels to represent the course of blood through the heart and the action of competent and incompetent valves. Uncertainty as to the action of the respiratory muscles led him to experiment on their actions, especially that of the internal intercostal muscles (1876).

His Lectures on Practical Physiology, with many illustrations (*Lancet*, 1871-72) were an amplification of the course he gave in Edinburgh, and are still models of accurate and graphic description. In this connection it may be mentioned that he intended they should form the basis of a Textbook of Practical Physiology, for which he collected much material in the form of woodcuts and electrotypes; nearly 100 pages of that book were in print just before Rutherford returned to Edinburgh, but the work never saw the light. Perhaps the great strain on his energies left him little leisure for its completion.

In 1870, the late Mr. A. B. Stirling, Assistant Curator of the Anatomical Museum under Sir William Turner, published an account of the microtome which he had invented, and by means of which he made those marvellously beautiful histological specimens for which he was so justly famous. Rutherford modified this apparatus—the parent of practically all microtomes in this country—by adding to it a freezing chamber, so that it become possible rapidly to make any number of sections of an organ by means of the freezing method. When Rutherford returned to Edinburgh in 1874, this new method—which had borne good fruit in King's College—made it possible to give each student specimens of all the tissues and organs, so that at the end of the practical course every student had a complete set of microscopical specimens in part at least prepared by himself. It is perhaps difficult in these days of endless varieties of microtomes and section-cutters to appreciate this advance at its full value. At any rate, in the Tercentenary Portrait of Rutherford, in *Quasi Cursores*, he elected to have this instrument figured by his side. About this time he published his *Outlines of Practical Histology* (1877), which did much to increase the efficiency of the teaching of practical histology in other medical schools.

The prospect of a meeting of a great scientific society to be held shortly in Edinburgh spurred him on to new researches, this time on the Secretion of Bile, a research which cost him infinite trouble and time, and in which he was ably assisted by a young Frenchman, Wm. Vignal—alas, also now no more. The results were published (1875-77) *Journal of Anatomy and Physiology*, and later on in a collected form under the title *On the Physiological Action of Drugs on the Secretion of Bile* (1879). He often spoke of the labour these researches cost him, and of the attentions bestowed on himself by those who were averse to experiments on animals. Long before Eck's fistula was devised, that is, union of the portal vein with the hepatic vein, and thus practically to exclude the liver from the circulation, Rutherford thought of this possibility, but surgical technique had not then advanced sufficiently to enable the method to be tried with success.

In the eighties, visions of a great textbook of physiology and of an atlas of histology were often in his mind, but only a single part of his textbook ever appeared, dealing with the simple tissues (*A Textbook of Physiology*, Part I, 1880).

During his later years he devoted much of his time to the study of the structure of striated muscle, especially of the crab; and in 1895, with characteristic loyalty and sense of admiration, he dedicated the results of his labours to the venerable Dr. Wm. Dobie, of Chester, whose early researches on muscle mark an epoch in the study of that recondite structure. This paper he communicated to the International Physiological Congress at Berne about four years ago.

The mechanism of the senses also attracted him, and at the Birmingham meeting of the British Association he propounded a new theory of tone-sensation in opposition to that of Helmholtz, a subject to which he referred only last year, when he embodied his modified views in an address to the Physiological Section of the British Medical Association at its Edinburgh meeting. The subject of colour-sensation also had great fascination for him.

Rutherford had many individual peculiarities, but beneath an occasionally severe and reserved exterior there beat a true, loyal, and vastly sympathetic heart. His burly presence, his fine, sonorous voice of rich timbre and great power made him an effective and agreeable speaker and lecturer—in fact, he stands out as one of the greatest and most brilliant lecturers that Edinburgh can boast of during many years past.

His sense of devotion to duty was of the highest; no effort was ever spared to arrive at the truth, and even in trying times his unswerving devotion to what he considered the best interests of the University and of the students committed to his care marked him out as a man who did what he had to do fearlessly and without favour. The students knew well and appreciated his many talents, and there existed between him and them a true bond of friendship and mutual regard.

Of the work partly inspired and partly directed by him there is ample evidence in the large number of scientific papers produced by his successive assistants and by others working in his laboratory. His wide, all-round knowledge of physiology enabled him to take a sympathetic interest in every department of his subject. He was always ready to offer suggestions, and invariably brought keen and critical powers to bear on any problem under investigation.

The writer—an old friend—has purposely refrained from over-adulation, and adhered to the good old maxim of *nil nisi bonum*. As the days and years roll on, the numerous finer traits in Dr. Rutherford's character will become better known and will be treasured by his many pupils and friends. Any shadows there may have been will only serve to enhance the glory and the brightness of his many virtues.

Professor Rutherford by his will bequeathed to the University of Edinburgh his medical library, his microscopical specimens and diagrams used in connection with the class of physiology, and also a portrait of himself.

The funeral took place at Ancrum Church on the morning of February 25th. The funeral procession was headed by some four hundred students walking four abreast. There was a large representation of University professors and assistants, of the medical profession generally, as well as of the public. The pall-bearers were: Dr. Rutherford, Kelso; Professor Simpson, representing the University and the Royal College of Physicians; Mr. Walter Rutherford, Crailing Tofts (nephew); Dr. Carlier, the late Professor's University Assistant; Mr. C. Rutherford (nephew); Mr. Walter Rutherford, jun.; and Mr. Carnegie Dickson, representing the students.

CHARLES JOSEPH ARKLE, M.D.LOND., F.R.C.P.,

Assistant Physician to Charing Cross Hospital.

IN the BRITISH MEDICAL JOURNAL of February 25th, we briefly recorded the fact of the death of this promising young physician at the age of 37 after a few days' illness from pneumonia on February 23rd. He was born in Liverpool, and went to school at the Liverpool College. In 1879 he matriculated at London University, and was forthwith entered for the science classes at University College, London, and in October, 1880, entered the hospital as a medical student. Here he distinguished himself by winning the Atkinson-Morley surgical scholarship, the highest surgical prize in the school, and was successfully house-physician to Dr. Wilson Fox, house-surgeon to Mr. Marcus Beck, and obstetrical assistant to Dr. Graily Hewitt. He obtained his first qualification in 1884, and in 1885 graduated as M.B.Lond., taking honours in Medicine and Forensic Medicine; in 1887 he took the M.D. degree, and in the following year he took the diploma of M.R.C.P.

In 1887 he was appointed Resident Medical Officer at University College Hospital, and held the post for two years. In 1891 he was elected to the office of Medical Registrar at the Hospital for Sick Children, Great Ormond Street, but resigned six months later on being appointed to the newly-created office of Pathologist at the Charing Cross Hospital Medical School. Three years later a vacancy on the full staff there gave him the opportunity of becoming attached to a metropolitan school he had so long looked for and so well earned, and he became Assistant Physician to the Charing Cross Hospital; he was at the same time appointed Joint Lecturer on Practical Medicine and Joint Medical Tutor in the School. Subsequently he held the office of Lecturer on Bacteriology, a post he resigned a short time back. For the last three years he had been Physician in Charge of the Electrical Department, and had just completed on the very day of his death his term of office as Vice-Dean of the School. In 1897 he was appointed Assistant Physician to the Brompton Hospital for Consumption, and last year he was elected to the Fellowship of the Royal College of Physicians.

Dr. Arkle was not a voluminous writer, but he was a good teacher; he knew exactly what students wanted, and how best to bring home to their minds the facts that were essential, and his sturdy common sense prevented him from running after new doctrines at the expense of general principles. One of his former teachers once said of him that he was cast in a big mould, and it was true of him both physically and mentally; a hard-headed Lancashire man, he was essentially robust—no other word so aptly describes the whole man. His disposition was most genial, he was full of humour, and was esteemed by all, and beloved by those who knew him at all intimately.

As a student Arkle was a great football player, constantly representing his hospital. He was captain in the United Hospitals team, and played also for Richmond. In 1886 he gained the blue ribbon for every footballer—his cap in the international team. He was also an enthusiastic volunteer, and as a member of the Artists Corps for many years enjoyed their annual outings; for the last five years he had been Surgeon to the Inns of Court Rifle Volunteers, a distinction he highly prized. In 1886 he became a member of the Alpine Club, and no member of that club could have looked forward more keenly to his annual holiday in Switzerland or enjoyed it more thoroughly than Charles Arkle did. Dr. Arkle was unmarried.

THE death of Mr. BADER, in his 72nd year, took place at his country residence at Stoke Ferry, Norfolk, on February 13th. He was born in the Grand Duchy of Baden, where he also received his early education. He left that country during the revolution of 1848, and settled in London. Ophthalmic work was at that time advancing rapidly in Germany under the leadership of von Graefe and Helmholtz, and Mr. Bader, who profited thereby, was so fortunate as to be appointed Pathologist to Moorfields Ophthalmic Hospital, and Curator of the Museum after becoming M.R.C.S.Eng., and L.S.A.Lond. In 1861 he became Assistant Ophthalmic Surgeon to Guy's Hospital; and in 1873 was elected Ophthalmic Surgeon to the Hospital, and retained the post for nine years. He was a great advocate of operation for almost all diseases of the eye and its appendages, and amongst the crowded out-patient rooms found multitudes of cases in which his manual dexterity was of service. He also acquired a large private practice in the City; and is said to have operated on 700 of his cases in one year. He possessed great energy, and for years rose at 4 A.M., at any rate during the summer months. His operations were often original in design and brilliant, but he failed to win the confidence of the general body of English ophthalmic surgeons. He was the author of a work on his special department of practice, and of some fourteen articles in the *Guy's Hospital Reports*. The chief of these were concerned with the description of the appearances of the human eye in health and disease, as seen by the ophthalmoscope. Of recent years he had nearly retired from practice, and had invested his savings in property at Stoke Ferry, where he devoted himself to agricultural pursuits, particularly the breeding of sheep and horses.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Professor C. L. Studsgaard, of Copenhagen, Surgeon-in-Ordinary to the King of Denmark; Professor J. H. Etheridge, of the Rush Medical College, Chicago, a distinguished gynæcologist; Dr. Eumner Pacha, Physician to the Imperial Palace, Constantinople; Dr. Nasse, of Constantinople, who was at the head of the German Red Cross in the Græco-Turkish War; and Dr. Biarnès, Lecturer on Chemistry in the Medical School of Toulouse.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF ST. ANDREWS.

T. G. NASMYTH, M.D., B.Sc., D.P.H., Medical Officer of Health of Fifeshire, has been appointed Examiner in Public Health in the University of St. Andrews.

UNIVERSITY OF BRUSSELS.

AT the February examination the following practitioners were successful and obtained the M.D. degree: J. Q. Brown, Ashford; C. Franks, Newark; W. J. Jenner, London; M. J. Morgan, Aberystwyth; G. Tillike, Ceylon. There were 12 candidates, 7 of whom failed.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE following candidates having passed the necessary examination have been admitted Fellows of the College:

J. K. Denham, L.R.C.S.I.; E. J. Moore, L.R.C.S.I.; and T. G. Stevens, L.R.C.S.I.

The following candidates have passed the primary part of the examination for the Fellowship of the College:

R. J. Coulter. B.Ch.Univ.Dub.; J. P. Frengley, B.Ch.Roy.Univ.; R. D. Joyce, M.R.C.S.Eng.; C. R. Boyce, E. Glenny, P. J. Hanafin, Mrs. H. L. Hennessy, J. M. S. Levis, and J. F. Peart.

APOTHECARIES HALL OF IRELAND.

THE following candidates have passed the recent examinations for the Licence in Medicine, Surgery, and Midwifery, in the subjects indicated: *Physiology*, S. Adye Curran and L. J. Farrell. *Anatomy*, S. Adye Curran and A. J. Barnes. *Materia Medica*, A. J. Barnes. *Pathology*, W. P. Harding, who has also completed the Third Professional. *Surgery, Midwifery, and Ophthalmic Surgery*, W. W. Feris.

The following have passed the L.A.H.: F. G. Adye Curran, W. P. Delahunt, J. D. Power, M. P. O'Brien, and J. J. Ahern.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

The following gentlemen having passed the necessary Examinations, and having conformed to the By-laws and Regulations, have been admitted Members of the College:

Ackland, D.
Adams, H. C.
Agnew, C. S.
Ainscow, J.
Allport, R. H.
Anderson, H. G. S.
Anderson, M. C. B.
Baiss, L. A.
Bardswell, M. D.
Barnes, C. H.
Barnes, J. A. P.
Barwell, H. S.
Beatty, H. A.
Bellamy, J. H.
Berncastle, H. M.
Bevan, A.
Blake, M. D.
Bond, F. F.
Bourdas, E. C.
Bowles, A.
Bradley, J.
Brook, F. W.
Bryan, H. J.
Budd-Budd, E. J.
Butler, F. T.
Carter, A. H.
Cato, C. S.
Challice, J. S.
Clarke, A. E.
Coates, F. A.
Crawford, W. J.
Cullen, J. A. P.
Curtis, P. J.
Davis, W. H.
Dawe, F. S.
Dawson, T. D.
Dean, E. C.
de Freitas, Q. B.
Dixon, M.
Dunston, J. T.
Edwards, E. S.
Evans, A.
Evans, E.
Forster, F. C.
Frost, J. R.
Gaff, J.
Goodbody, C. M.
Hadley, F. A.
Hearn, R. S. F.
Henderson, W. S.
Horn, A. E.
Howlett, B. E.
Hughes, G. O.
Hutchens, H. J.
Hutchinson, G. A.
James, S.
Jones, A. W.
Jones, J. H.
Jones, L.
Kay, A. R.
Kemp, J. H.
Kirkman, A. H. B.
Knowlton, A. J.
Landon, T. H. W.
McComb, J. A.
McCoy, W. J.
Manlove, J. E.
Martin, R. C.
Matthews, J.
Mawson, J. A.
Milbanke, W. B.
Miller, G. V.
Milton, W. T.
Mitchell, C. M.
Mondy, S. L. C.
Moss-Blundell, C. B.
Nicholls, F. J.
Parker, H. F.
Parry, E. J.
Perrin, T.
Pilcher, C. W.
Porter, W. G.
Pritchard, R. J.
Pryce, H. V.
Rae, F. L.
Rhodes, J. H.
Rice, H. R.
Richards, F. G.
Richards, G. M. O.
Ricketts, A.
Robinson, H. H.
Robinson, J. H.
Roche, N. J.
Rose, F. A.
Rowland, E. W. S.
Schofield, C. R.
Schuller, W. J.
Scott, C. W.
Sewell, E. P.
Silver, H. W.
Spear, G. A. W.
Stedman, S. B.
Stilwell, R. J.
Tallent, J. H.
Thomas, D. J.
Thompson, F. B.
Tucker, W. E.
Turner, F. D.
Turner, H. S.
Vaughan, A. L.
Von Eberts, E. U. M.
Wainwright, F. R.
Walker, F. E.
Walker, J. F.
Ware, A. M.
Wessells, C. A.
Williams, P. G.
Wilson, A. G.
Wingate, B. F.
Worthington, E. S.
Young, E.
Young, J. C.

The following gentlemen having passed the necessary Examinations have been admitted Diplomates in Public Health in conjunction with the Royal College of Physicians of London:

S. Davey, L.R.C.P.Lond., M.R.C.S.Eng., London Hospital and King's College, London; J. R. Dickson, M.B., C.M.Edin., Edinburgh University and University College, London; J. R. Dodd, M.B.Durh., F.R.C.S.Eng., Durham University and St. Bartholomew's Hospital; G. Fowler, L.R.C.P. & S.Ed., L.F.P. & S.Glasg., Madras, Edinburgh, and Charing Cross Hospital; W. F. Grant, M.D., C.M.Edin., Edinburgh University and University College, London; E. W. Herrington, L.R.C.P.Lond., M.R.C.S.Eng., L.S.A.Lond., St. Mary's Hospital; W. Lansdale, M.D.Durh., L.R.C.P.Lond., M.R.C.S.Eng., L.S.A.Lond., Durham University and Guy's Hospital; R. G. McGowan, M.B., M.S.Aberd., Aberdeen University and University College, London; W. A. Powell, L.R.C.P.Lond., M.R.C.S.Eng., Charing Cross Hospital; J. T. Simpson, L.R.C.P.Edin., L.F.P. & S.Glasg., Yorkshire College and General Infirmary, Leeds, and University College, London; G. C. Walker, M.B., Ch.B.Vict., L.R.C.P.Lond., M.R.C.S.Eng., L.S.A.Lond., University College and Royal Infirmary, Liverpool; E. G. H. Williams, L.R.C.P.Lond., M.R.C.S.Eng., Charing Cross Hospital and University College, London; E. M. Wyche, L.R.C.P.Lond., M.R.C.S.Eng., London Hospital.

ROYAL NAVY AND ARMY MILITARY SERVICES.

THE ESTIMATES FOR THE ARMY MEDICAL ESTABLISHMENTS.

The Army Estimates for 1899-1900 are, as usual, compiled with much care and given in great detail; but some expertness is required in separating items and cross entries so as to arrive at totals that will exactly balance.

The following analysis may be taken by those who cannot examine the Estimates for themselves as correct in all practical particulars: Vote 2, "Medical Establishments, Pay, etc.," amounts to £305,800 against £295,000 last year, being a net increase of £10,000. This increase, if partly automatic, provides also for an augmentation of 18 officers and 150 men, Royal Army Medical Corps; but as regards the officers it cannot be counted as an absolute increase to a previously normal establishment, for that was greatly under strength, as explained in the following note: "It is anticipated that the actual numbers will more closely approximate to the establishment than has been the case during the last few years;" which, in other words, means that it is hoped some progress may be made during the financial year in filling up a depleted establishment.

The officers and men provided for the Home and Colonial establishments are as follows:

Officers	543
Warrant and non-commissioned officers and men ...	2,792
Total	3,335

Of this total 2,562 are for home and 773 for Colonial establishments.

The cost is as follows:

Pay, Army Medical Service...	£238,200
Militia medical officers and civilian practitioners	13,900
Corps pay and extra duty pay of the Royal Army Medical Corps, nurses, clerks, and subordinates	39,700
Medicines and instruments	14,000
Contingencies	1,300
Total	£307,100
Deduct appropriations in aid	1,300
Net total ...	£305,800

But the above does not include the regimental pay of the Royal Army Medical Corps, stated at £84,430, or, less stoppages and fines, £83,500. The following medical officers in ranks are voted:

	Home.		India.
Surgeon-Major-Generals (title of Major still retained)	7	...	3
Surgeon-Colonels (term Surgeon still retained ...	13	...	10
Lieutenant-Colonels, Majors, Captains, and Lieutenants	495	...	322
Surgeons on probation	?	...	?
Acting medical officers (retired pay appointments) ...	85	...	—
Quartermasters	35	...	—
Assistant apothecary, Hong Kong Regiment	1	...	—
Totals	636	...	335
Grand total ...	971		

This grand total shows an excess of 18 officers over last year, as previously explained. But these numbers require further examination to arrive at a correct estimate of the truly effective medical strength of the service on full pay; from the total must be deducted the acting medical officers (so-called), the quartermasters, and the apothecary, leaving 850. This latter figure shows the full-pay strength still 40 under the establishment spoken of as "dangerously low" by the late Director-General, Sir Thomas Crawford. Taking into consideration the increase in army establishments, and the consequent greater demands on the medical service, it is to be hoped some progress will be made during the year in at least completing a deficient establishment.

The non-effective vote, which used to be railed at as abnormally large, but which is really proportionate to corresponding branches of the service, shows totals of 492 individuals and £201,000, a reduction of 10 persons and £4,000 on the previous year. The actuaries of Sir Ralph Thompson's Committee of 1879 foretold, with great accuracy, that the medical non-effective vote would, as the result of the great augmentation of the service during the Crimea and Mutiny times, attain its maximum about 1892; it has been shrinking since. But it is explained in a note that the vote is relieved of a charge of £32,400 by the employment of medical officers on the retired list, whose salaries are included in the active Vote 2.

It is sad to note how rapidly the old ranks of the department are disappearing from the pension list: only 1 inspector and 4 deputy inspector-generals of hospitals, about a dozen surgeons, and 8 assistant surgeons are left; and the same steady shrinkage, through death, is shown among the old captains of orderlies, apothecaries, and purveyors.

The total Vote for the Effective and Non-effective Medical Establishment is given at page 234 as £659,778. This includes all charges for officers and men, pay, pension, transport, provisions, forage, fuel and light, field allowance, rents, lodging, colonial allowance, barracks, clothing, and schools.

ROYAL NAVY MEDICAL SERVICE.

The following appointments have been made at the Admiralty: **Henry C. Whiteside**, Surgeon, to the *Boscawen*, for the *Dolphin*, February 22nd; **Stratford D. T. Halliday**, Surgeon, to the *St. Vincent*, for the *Martin*, February 22nd; **James M. G. Swainson**, Surgeon, to the *Boscawen*, for the *Peaflower*, February 22nd: **Adrien A. Forrester**, M.B., Surgeon, to the *Boscawen*, for the *Wanderer*, February 22nd; **Warren G. Westcott**, Surgeon, to the *Lion*, for the *Liberty*, February 22nd; **Francis J. McKenna**, M.B., Surgeon, to the *Impregnable*, for the *Nautilus*, February 22nd; **Edward O. B. Carber**, M.B., Surgeon, to the *Impregnable*, for the *Pilot*, February 22nd; **HUGH L. NORRIS**, **WILLIAM W. KEIR**, M.B., **PERCY H. BANNISTER**, M.B., **HENRY W. M. REES**, and **HENRY R. GARDNER**, M.B., Surgeons, to the *Victory*, for disposal; **CYRIL SHEPHERD**, **JOHN STODDART**, M.B., **EDWARD C. SAWDY**, and **MERVYN W. FALKNER**, Surgeons, to the *Vivid*, for disposal; **JOHN K. RAYMOND**, M.B., and **FAIRMAN R. MANN**, Surgeons, to the *Pembroke*, additional, for disposal; **JAMES A. FORREST**, M.B., and **RICHARD S. OSBORNE**, Surgeons, to the *Wildfire*, for disposal; **JOSEPH A. MOON**, Surgeon, to the *Boscawen*, February 28th; **GERALD B. BROWN**, Surgeon, to the *Sharpshooter*, March 1st.

ROYAL ARMY MEDICAL CORPS.

COLONEL J. M. **BEAMISH**, who is serving in the Bombay Command, is ordered to proceed immediately to Meerut to officiate as District Principal Medical Officer, Bengal Command.

Captain P. H. **WHISTON**, from the Seconded Lists, is restored to the establishment, *vice* W. W. Smith, deceased, January 15th.

Captains G. A. T. **BRAY** and J. H. **RIVERS** are seconded for service with the Egyptian army, the former from February 14th, the latter from January 17th.

Quartermaster W. T. **VIDLER** is cashiered by sentence of a general court-martial, February 8th.

Lieutenant-Colonel **POOLE R. GABBETT** died on February 27th at Southsea. He was the eldest son of the late Major R. P. Gabbett, Royal Artillery, and entered the Army Medical Service as Assistant-Surgeon, April 1st, 1871; became Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1883; was granted the rank of Lieutenant-Colonel, April 1st, 1891; and made Brigade-Surgeon-Lieutenant-Colonel, October 26th, 1895. He had no war record in the *Army Lists*.

INDIAN MEDICAL SERVICE.

THE following promotions in the Bengal Establishment of Surgeon-Lieutenant-Colonels to be Brigade-Surgeon-Lieutenant-Colonels have been notified: D. N. **MARTIN**, M.D., February 28th, 1898; R. L. **DUTT**, M.D., April 1st, 1898; J. **DUKE**, April 2nd, 1898; J. **MCCONAGHEY**, M.D., April 7th, 1898; E. **PALMER**, June 26th, 1898.

THE INDIAN MEDICAL SERVICE.

SINCE the controversy over the status of the Army Medical Service received a satisfactory solution, the condition of the Indian Medical Service and of medical service generally in that country has come more prominently to the front.

We have before us a number of lengthy communications on this subject from medical officers of almost every rank, each giving his views on the existing condition of the medical service in India. As the opinions therein expressed are sometimes absolutely conflicting and often very divergent, only on one point do we feel on sure ground. This is that the Indian Medical Service is not what it once was, nor such as it should or might be; that in fact it requires some reforming or remodelling. This indeed may be denied, but it is the only logical conclusion we can arrive at. But in order that our readers may judge for themselves we give a fair *précis* of the letters before us.

Referring to a statement made in the BRITISH MEDICAL JOURNAL to the effect that there was "sharp division" in interests and views between officers in civil and military medical employ, a Senior Correspondent writes:

I. The Indian Medical Service is not "sharply divided" into men with civil and military proclivities; the majority, while preferring civil employment, are proud of being military officers, and glad to get to the front in war time. The knowlege of practical surgery they acquire in civil employment makes them valuable in the field; they form a real reserve in war time. No fewer than 55 commissioned medical officers were placed at the disposal of the military authorities during the recent frontier troubles, which naturally caused inconvenience to the civil authorities, and which has caused talk of a separation between the civil and military branches. But such would be fatal to both branches:

(1) The reserve would thereby be lost, and could only be made up by an extension of the military cadre at ruinous cost, in which men would rust in time of peace.

(2) It is the hope of gaining one of the big prizes in civil employ that mainly keeps up the high general standard of candidates for the service. The military branch, if left to itself, would deteriorate, as the R.A.M.C. has done.

(3) Those in civil employ are enabled by their definite military rank and status to hold their own with civil authorities, which they could not do if placed wholly under the civil power.

Both the civil and military branches would thus deteriorate by separation.

II. It is not the fact, as lately stated, that the competition for the Indian Medical Service has fallen off. Owing to the fact that candidates are now allowed but two chances has the number of competitors decreased, but the quality has not. Let them be compared with those for the R.A.M.C. It is wrong to state that Indian appointments are no longer sufficiently numerous or lucrative. The appointments are increasing yearly, but at some stations emoluments from private practice have fallen off through competition. The gaol and other departments have been remodelled and the pay increased. The pay of brigade-surgeons and junior military officers in regimental employ has been increased. The big prizes, which all but equal the best in London, remain as they were.

The service only wants to be let alone, and is doing as good or better work now than in the past.

The racial question causes some, but not great, embarrassment; in practice natives and Eurasians go to civil employment.

The foregoing may be taken as a fair defence of the existing *status quo* in the service; other correspondence shows other aspects.

I.M.S. writes: The "destructive and regrettable antagonism" spoken of in the Indian Medical Service does not exist; on the contrary, there is great *esprit de corps* between those in civil and military employ. There have been differences of opinion over the pure military titles, some considering their profession higher than any military status. You are right in stating that three-fourths of the men entering the Indian Medical Service do so in order to obtain civil employment. Natives are now largely employed in civil medical appointments, and their pay is relatively higher than that of European commissioned officers. The latter are, indeed, badly underpaid, when their education, life, and expenses in a foreign tropical country are considered; the native standards of living and comfort are much lower than those of the European; yet the latter for almost half his service draws perhaps only Rs. 50 per month, or £40 a year, more than the higher paid native subordinates of his own department. Indian pay cannot be judged by English standards. Native medical men, trained in European methods, now exist in every town of importance, and keenly compete with the European civil surgeon. It may be safely stated that, excluding such cities as Calcutta, Madras, and Bombay, the private practice that any civil surgeon gets will not average more than Rs. 50 a month, or say £40 a year. Then there are few stations with gaols for which he would as formerly draw pay, for the establishment of great central gaols has abolished that source of income.

The good emoluments so often spoken of thus vanish into next to nothing in all second class civil surgeoncies, and the medical officer has little but his bare pay; he would be better paid in charge of a native infantry regiment. Why do men, therefore, take these civil appointments? It seems to be in most cases from sheer love of professional work; in some the want of due status has driven them from regimental to civil employ. No one denies there are still some prizes left; but they are becoming fewer and fewer, a fact which is viewed with alarm. Little but irritating retrenchments are constantly being made at the expense of the medical service. An Indian medical officer can draw no staff pay until he passes the lower standard in Hindustani, but a subaltern in the Staff Corps can and does while studying the language. The following seem to be the needs of the service:

1. Increase of pay all round.
2. Increase in *personnel* of establishment.
3. Arrangements by which selected officers can study in England at Government expense, as ordnance and other officers do.
4. The abrogation of all rules referring only to medical officers that put them in a less favourable position than other officers, civil and military.

Civil Surgeon writes: All medical officers in civil employ will bear me out in the following: There is no private practice except in what are known as first-class civil surgeoncies, which about 5 per cent. of the whole service may hope to get; another 3 or 4 per cent. may make Rs. 200 besides their pay in the smaller cities; but the rest have only their bare pay, *plus* in some cases a small gaol allowance. How is this? Because the native assistant surgeons now do all the practice among natives in the cities. Good men are now turned out by the Indian colleges, and the natives know it, they prefer one of their own race, at one-third the cost, to calling in a European.

The European commissioned officer is much moved about, the native is rarely moved, and being civil cannot be sent away on service. The native lives at little cost, and rapidly accumulates wealth; one died lately leaving four lakhs personalty; the European has innumerable expenses. With such prospects before him it cannot be wondered that the European man thinks twice before he enters the Indian service. The service is discontented; private practice has gone for ever, and emoluments must be improved.

I.M.S. Reform writes: The profession at home are beginning to realise the drawbacks in the Indian service, and hence this once most popular service is rapidly declining in popularity. Only 28 candidates for 20 vacancies in August last! The following grievances may be briefly commented on:

1. Salaries are not sufficient to keep up necessary appearances and expenses in living: the pay code is most intricate and irritating and bossed by Bahoo clerks.
2. Private practice in military service *nil;* in civil employment in the vast majority of stations not worth naming, being in the hands of native practitioners, some good and some otherwise.
3. The service is overworked and undermanned; witness the sending out of a large number of "temporary" officers (100 during the last two years, 35 within the last three months), who, of course, are better paid than the permanent officers, and whose duties are not confined to plague camps.
4. Delays in promotions on vacancies: this increases so-called "officiating appointments" on lower "officiating" pay; the losers being the officers, the gainers the State.
5. Furlough pay, and particularly sick furlough pay, is inadequate; it is notorious many officers on furlough are forced into debt. There is no provision for free or partly-paid passages.
6. The department is office-ridden. Clerking and useless correspondence, regulations, orders, circulars issued, revised, interpolated, corrected, explained, amplified, countermanded, succeed in endless and bewildering profusion; but notwithstanding all this medical officers are treated like children, and rarely consulted either by civil or military as to the utility of reforming objectional regulations or procedure.
7. Incessant and harassing transfers, both civil and military; sudden orders to move with factitious urgency hundreds of miles at great personal risk and expense. This insecurity of tenure in appointments engenders deep-rooted discontent and distrust. In this matter medical officers are often at the mercy of local Government Secretaries.

Of all of the above, I maintain the Medical Service is not given fair play, and officers are not protected by their seniors, who have, indeed, little real power. Until they are given real authority there cannot be real reforms.

Another correspondent writes: The Indian Medical Service is unpopular at present in the Scottish universities because of several reports.

1. That the service is undermanned, causing overwork, and difficulty in obtaining furlough and other leave.

2. The low rate of exchange, greatly enhancing the cost of living both abroad and at home: the present pay rates remaining as fixed when the rupee was worth 2s.

3. The cutting up of private practice by native practitioners, who can work and live at rates impossible in the European.

4. The withdrawal of civil surgeons from their posts for famine, plague, and frontier war duties, and the placing of the civil stations in the hands of civilians, both European and native; even should the former occupants be reinstated they would find their civil practice gone, or have to compete with the *locum tenens*.

5. The dread of alleged nepotism or favouritism by the higher civilians in the patronage of civil medical appointments.

Some of these drawbacks may be real and some imaginary, but they all operate against the popularity of the service nevertheless.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

ZYMOTIC MORTALITY IN LONDON.

THE accompanying diagram shows the prevalence of the principal zymotic diseases in London during the fourth or autumn quarter of 1898. The fluctuations of each disease and its fatal prevalence, as compared with that recorded in the corresponding periods of of recent years, can thus be readily seen.

Small-pox.—One fatal case of small-pox was registered in London last quarter, the corrected average number in the corresponding periods of the ten preceding years being 4; and no small-pox patients were under treatment in the Metropolitan Asylums Hospitals during the quarter.

Measles.—The deaths referred to measles, which had been 1,494, 1,078, and 238 in the first three quarters of 1898, rose again to 265 during the three months ending December last, but were considerably less than half the corrected average number. Among the various sanitary areas of the metropolis measles showed the highest proportional fatality in Clerkenwell, St. Luke, Shoreditch, Bethnal Green, Whitechapel, Limehouse, Mile End Old Town, and St. Saviour Southwark.

Scarlet Fever.—The fatal cases of this disease, which had declined from 247 to 108 in the four preceding quarters, rose again to 139 during the three months under notice, but were as many as 155 below the corrected average number in the corresponding periods of the ten preceding years. Among the various sanitary areas this disease was proportionately most fatal in Hammersmith, Fulham, Chelsea, St. Pancras, Clerkenwell, and St. Luke. The number of scarlet fever patients in the Metropolitan Asylums Hospitals, which had been 2,377, 2,146, and 2,425 at the end of the three preceding quarters, had further risen to 2,883 at the end of December last. The number of new cases admitted into these hospitals, which had been 2,823, 2,802, and 3,060 in the three preceding quarters, further rose to 3,795 during the three months ending December last.

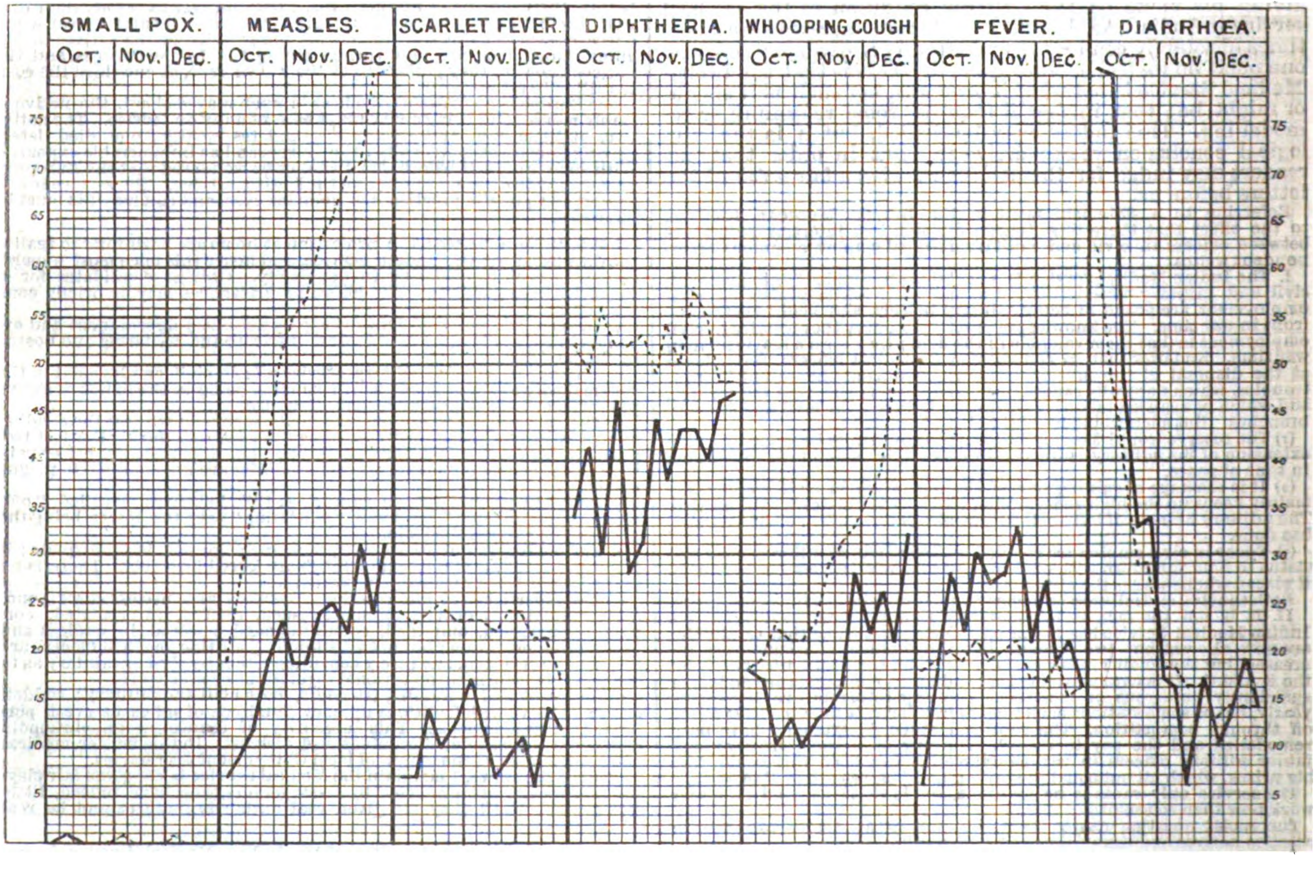
Diphtheria.—The deaths referred to diphtheria in London, which had declined from 704 to 360 in the four preceding quarters, rose again to 511 during the three months under notice, but were 163 below the corrected average number. Among the various sanitary areas this disease showed the highest proportional fatality in London City, Limehouse, Mile End Old Town, St. Saviour Southwark, Newington, Bermondsey, Battersea and Woolwich. The number of diphtheria patients in the Metropolitan Asylums Hospitals at the end of December last was 1,239, against 1,009, 971, and 1,024 at the end of the three preceding quarters; 2,241 new cases were admitted during last quarter, against 1,733, 1,648, and 1,768 in the three preceding quarters.

Whooping-cough.—The fatal cases of this disease, which had been 817, 673, and 430 in the three preceding quarters, further declined to 240 during the three months ending December last, and were 159 below the corrected average number; among the various sanitary areas whooping-cough was proportionally most fatal in Holborn, St. George-in-the-East, Limehouse, St. Saviour Southwark, St. George Southwark, Newington, and St. Olave Southwark.

Fever.—Under this heading are included deaths from typhus, enteric, and simple and ill-defined forms of continued fever. The deaths referred to these different forms of "fever," which had been 107, 73, and 122 in the three preceding quarters, further rose to 296 during the three months ending December last, but were 55 above the corrected average number. Of these 296 deaths, 2 were certified as typhus, 293 as enteric fever, and 3 as simple continued fever. Among the various sanitary areas the mortality from "fever" was highest in Fulham, Hampstead, St. Pancras, Strand, London City, St. Saviour Southwark, and Woolwich. The Metropolitan Asylums Hospitals contained 255 enteric fever patients at the end of December, against 64, 32, and 155 at the end of the three preceding quarters: 531 new cases were admitted during last quarter, against 171, 133, and 281 in the three preceding quarters.

Diarrhœa.—The 473 fatal cases of diarrhœa registered in London during

DEATHS FROM ZYMOTIC DISEASES IN LONDON DURING THE FOURTH QUARTER OF 1898.



NOTE.—The black lines show the *recorded* number of deaths from each disease during each week of the quarter. The dotted lines show the *average* number of deaths in the corresponding weeks of the ten preceding years, 1888-97.

the three months ending December last were 142 above the corrected average number; this disease showed the highest proportional atality in trand, Holborn, Clerkenwell, St. Luke, St. George Southwark, and Newington sanitary areas.

In conclusion, it may be stated that the 1,925 deaths referred to the principal zymotic diseases in London during the fourth or autumn quarter of 1898 were 740, or nearly 28 per cent. below the average number in the corresponding periods of the ten preceding years 1888-97. The ortality from "fever" and from diarrhœa showed an excess, while that om each of the other principal zymotic diseases was below he average. Among the various sanitary areas the lowest zymotic death-rates were recorded in St. George Hanover Square, Hampstead, Stoke Newington, St. Giles, St. Martin-in-the-Fields, and Plumstead; and the highest rates in St. Luke, Bethnal Green, Limehouse, St. Saviour Southwark St. George Southwark, and Newington.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns, including London, 6,900 **births and** 4,505 **deaths were registered during the week ending Saturday, last, February** 25th. **The annual rate of mortality in these towns, which had** been 21.9 and 19.5 per 1,000 in the two preceding weeks, rose again to 20.6 last week. The rates in the several towns ranged from 13.8 in Burnley, 14.1 in Leicester, 15.3 in Portsmouth and in West Ham, and 15.4 in Bristol, to 23.3 in Sunderland, 25.8 in Manchester, 26.7 in Liverpool, and 32.0 in Blackburn. In the thirty-two provincial towns the mean death-rate was 20.0 per 1,000, and was 1.5 below the rate recorded in London, which was 21.5 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.7 per 1,000; in London the rate was equal to 1.7 per 1,000, while it averaged 1.6 in the thirty-two provincial towns, among which the highest zymotic death-rates were 2.9 in Bolton, 3.6 in Birkenhead, 5.5 in Swansea, and 5.8 in Blackburn. Measles caused a death-rate of 1.0 in West Ham, 1.3 in Bolton, and 1.5 in Manchester; whooping-cough of 1.1 in Bradford, 1.4 in Sunderland, and 2.7 in Birkenhead; and "fever" of 1.9 in Blackburn and 2.3 in Wolverhampton. The mortality from scarlet fever showed no marked excess in any of the large towns. The 100 deaths from diphtheria in the thirty-three towns included 29 in London, 12 in Leeds, 11 in Swansea, 9 in Sheffield, 6 in Liverpool, 5 in Blackburn, 4 in West Ham, and 4 in Birmingham. No fatal case of small-pox was registered during the week under notice, either in London or in any of the thirty-two large provincial towns; and 2 small-pox patients were under treatment in the Metropolitan Asylums Hospitals. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had declined from 2,939 to 2,587 at the end of the eight preceding weeks, had further fallen to 2,575 on Saturday last, February 25th; 241 new cases were admitted during the week, against 265, 253, and 202 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

During the week ending Saturday last, February 25th, 893 births and 737 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 31.2 and 28.0 per 1,000 in the two preceding weeks, further declined to 24.1 last week, but was 3.5 per 1,000 above the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 16.0 in Dundee and 21.9 in Aberdeen to 26.8 in Edinburgh and 29.0 in Greenock. The zymotic death-rate in these towns averaged 2.1 per 1,000, the highest rates being recorded in Edinburgh and Aberdeen. The 355 deaths registered in Glasgow included 7 from measles, 3 from scarlet fever, 2 from diphtheria, 9 from whooping-cough, and 4 from diarrhœa. Ten fatal cases of whooping-cough, 3 of measles, and 2 of "fever" were recorded in Edinburgh, and 9 deaths from measles occurred in Aberdeen.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

Dr. Farquharson, M.P., received a deputation from the Council of the Poor-law Medical Officers' Association on Thursday, February 23rd, to lay before him their views as to the necessity for the formation of a common or central fund, from which Poor-law pensions might be paid, and to point out to him the hardship and injustice entailed by the present Act upon a large number of district medical officers, who, because they do not and in many cases cannot reside in their districts, are subjected to an annual or triennial re-election. Dr. Major Greenwood pointed out that the only way of making the Superannuation Act workable was to create a central fund. Dr. Holder, of Hull, spoke of the injustice of the appointment of medical officers by yearly tenure only, and also of the inadequacy of the remuneration of many urban district medical officers. Mr. Balding and others having spoken, Dr. Farquharson said that he sympathised thoroughly with the views of the deputation, and thought that if a central fund were formed it would meet the case. He promised to do all he could to help the movement.

BACTERIOLOGICAL DIAGNOSIS.

Dr. F. W. Alexander, M.O.H. for Poplar and Bromley, recently presented to the Board of Works for the Poplar District a report in which he pointed out the advantages which would be likely to accrue from placing at the disposal of medical practitioners in the district facilities for bacteriological examination in suspected cases of diphtheria and typhoid fever. An arrangement has been entered into with the Jenner Institute of Preventive Medicine to provide "diagnosis boxes" containing sterilised outfits and to make the necessary examination. One of these boxes will be supplied to any practitioner in the district who may be willing, in doubtful cases of typhoid fever and diphtheria, to avail himself of this opportunity to arrive at a correct diagnosis, more especially where no objection is raised to the removal of doubtful cases to isolation hospitals.

CERTIFICATION OF LUNATICS,

M. B. A. writes to ask whether a parochial medical officer can claim a fee for certifying a lunatic as fit for an asylum.

*** A parochial medical officer can claim the same fee as any other medical practitioner for this duty. It should never be less than one guinea.

Another question put by M.B.A. is unanswerable, as he does not say for what purpose he was requested to visit the patient, nor does he tell us the result of his visit.

Pauper.—We believe that the Local Government Board has full power to sanction any alteration of districts which they may consider desirable for the benefit of the poor, and if this be done our correspondent will have to submit to any loss that may be entailed thereby. He, however, does not state his case very clearly, and mixes up his Poor-law district work with public vaccination, duties of which are quite distinct.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE ROYAL FREE HOSPITAL.

The Committee have resolved to improve the sanitary arrangements by making certain alterations and additions to the ward lavatories, sculleries, and bath rooms, and also to provide better accommodation for the nursing staff by building a fourth storey over the side portions of the central block, which will bring the whole of that block to the same height. It was stated that the visitors who inspected the hospital on behalf of the Prince of Wales's Hospital Fund strongly recommended the carrying out of these improvements, which are estimated to cost £8,500.

IPSWICH INFECTIOUS HOSPITAL.

At a meeting of the Ipswich Clinical Society on February 9th, Mr. S. O. Eades, President, in the chair, Mr. Corfe stated that the Board of Management of the East Suffolk and Ipswich Hospital had decided to admit into the hospital cases of diphtheria requiring tracheotomy. The following resolution, proposed by Mr. Moseley and seconded by Mr. Hosack, was unanimously passed: "That in the opinion of the members of the Ipswich Clinical Society, the present accommodation at the infectious hospital of this town is insufficient; and that Mr. G. S. Elliston, medical officer of health, be asked to approach the Health Committee to provide proper room for increased treatment, with special reference to the desirability for accommodation and treatment of persons suffering from diphtheria."

VICTORIA EYE AND EAR HOSPITAL, DUBLIN.

At the second annual meeting of the Victoria Eye and Ear Hospital on February 14th it was stated that a site for the new hospital had been approved. The terms were reasonable, but even if the space required could be procured it might not be possible to obtain possession for five years. The estimate for the new building was £30,000, of which £19,000 had been received. It was announced that Dr. Charles E. Fitzgerald had resigned his position as surgeon owing to other demands upon his time.

WORCESTER COUNTY ASYLUM.

The forty-fifth annual report issued by the Committee of Management shows a steady increase in the number of patients. During the last six years the numbers have steadily risen from 922 to 1,091, giving 169 more on the books and 56 of these accredited to the last twelve months. Mr. Braine-Hartnell, the Medical Superintendent, states that at the end of the year there were 39 more patients than the asylum is supposed to accommodate. The nature of the case admitted was not favourable for a high recovery-rate. Of the total admissions, numbering 209, 38 were over 60 years of age. There were 23 suffering from epilepsy, 17 were congenitally deficient, and 11 were general paralytics, while in reference to the general health of the cases admitted, only 16 were in good bodily health and condition. The recovery rate was 32.30 per cent., and the death-rate 7 per cent. Following the example of other public asylums, private patients are now admitted, and there are 49 now on the books. An outbreak of dysentery occurred, but it was speedily checked by free applications of chloride of lime solution to the floors and walls of the rooms and closets. The Committee place on record their high appreciation of the services of Dr. E. Marriott Cooke, who, after filling the post of Medical Superintendent with conspicuous ability, had been appointed a Commissioner in Lunacy.

DORSET COUNTY ASYLUM.

Dr. MacDonald, in his report for 1897-98, tells his Committee that the most unsatisfactory feature in connection with the admissions is the very high proportion of cases which, from one cause or another, will inevitably go to raise the already alarming list of the chronic insane, for the curable cases are few and far between, and this is bound to result in a material rise in the resident population. Another point of interest he draws attention to is the very high percentage of first admissions, for of the 108 patients admitted as chargeable to the county, no fewer than 94 were new cases. In six years the population has increased from 354 to 542. It seems hopeless to clear the chronic harmless cases out of the asylum, for when they are returned to the workhouse they nearly all find their way back to the asylum within a comparatively short time; and, says Dr. MacDonald, I have actually known such cases to be recertified and returned to the asylum, "while acute and curable cases were removed from their homes to the workhouse and there detained for weeks, to the injury of the patients' feelings as well as the loss of most precious time." This is a heavy indictment against the authorities. Among the discharges the recovery rate was 42.24 per cent., and the death-rate 7.1 per cent. The number of private patients has increased from 75 to 79.

MEDICAL NEWS.

THE Treasurer of St. Thomas's Hospital has received a donation of £1,000 from "G. R." for the endowment of a surgical bed "in memoriam," being the fourth bed endowed by this generous benefactor.

HOSPITAL FOR DISEASES OF THE THROAT.—Dr. Herbert Tilley has received from the executors of the late Edward Armitage, R.A., a donation of £500 to the funds of the Hospital for Diseases of the Throat, Golden Square.

THE late Miss M. A. Macneilledge of Liverpool has by her will bequeathed £1,000 to the Liverpool Royal Infirmary, £500 each to the Infirmary for Children, Royal Southern Hospital, Northern Hospital, Stanley Hospital, Bootle Borough Hospital, and the Liverpool Out-door Maternity Charity; and £200 to the Liverpool Hospital for Cancer and Skin Diseases.

THE MAHDI'S HEAD.—With reference to the revived rumour that the Mahdi's head is at the present time in the possession of a certain medical institution in Edinburgh, our Edinborough correspondent telegraphs that he has made inquiry at the medical institutions, and has found that there is absolutely no foundation for the report.

INDUSTRIAL FARM COLONY, REIGATE.—The annual report of Lady Henry Somerset's Industrial Farm Colony, presented to the recent meeting at the Mansion House under the presidency of the Lord Mayor, stated a fair proportion of cures had been effected by the moral and physical treatment adopted. Lady Henry Somerset said that the Home took not only police-court cases, but also women who, having become the victims of secret drinking, had wrecked their homes, and, in a moment of repentance, voluntarily entered the colony for a year. For this latter class the recent Inebriates Act made no provision, so that there was the greater necessity for public attention being drawn to this institution and its financial needs.

A CASE OF MALTA FEVER IN PHILADELPHIA.—In the *Proceedings* of the Pathological Society of Philadelphia for February 1st, Dr. J. H. Musser and Dr. J. Sailer (as we learn from the *New York Medical Journal*) report the case of an army officer who appears to have contracted the disease in Puerto Rico. Malarial plasmodia were frequently sought for in his blood, but never found. A culture of the micrococcus melitensis gave an agglutinative reaction with the patient's blood. The authors intimate that the name of febris undulans, suggested by Hughes, is the most appropriate for Malta fever, which, they remark, occurs in Malta, in Naples, at Gibraltar, on the northern coast of Africa, in India, and possibly in Hong Kong and along the Danube. So far as they know it has not previously been observed in the United States.

ASEPTIC SWEARING.—We mentioned lately that objection had been taken and allowed, on sanitary grounds, in some American law courts, to the superstitious observance of "kissing the book," as to which there have been so many passages of arms between doctors and ultra-conservative judges in this country. Our American cousins, who are nothing if not inventive, have endeavoured to reconcile the claims of hygienic science with the sanctity of the oath by making the ritual of swearing aseptic. At the Court of Special Sessions of New York a new Bible with celluloid covers has been provided for the use of witnesses. A minister of the law has been instructed to sponge the cover after each witness has kissed the book in due form. At the close of the day the sacred volume is washed in a solution of carbolic acid.

INOCULATION AGAINST ENTERIC FEVER.—Since Professor Wright's visit to Bangalore—where, as we have already announced, he inoculated 250 soldiers of the West Riding Regiment against enteric fever—he has been at Rawal Pindi, and has addressed the "Queen's" on the advantages of inoculation, pointing out that 1,500 men are annually ill with enteric fever and that 300 die. He stated that, of 200 attendants at the Maidstone Asylum, 95 were inoculated, and none contracted enteric fever during the epidemic there, while of those who refused to undergo the process, 19 suffered from the disease. Further, that at Khartoum, of 8 young subalterns, 6 consented to inoculations and the other 2 agreed to take their chance; 1 was very ill with enteric and the other died; the inoculated officers escaped. He added that he had inoculated 3,000 troops, and had proved by their medical history sheets that more than half of this number never caught enteric fever.

VITAL STATISTICS OF EGYPT.—A report containing a summary of statistics of births and deaths in Egypt for the five years 1886-90 has been issued recently by the Statistical Bureau of the Ministry of the Interior of the Egyptian Government. The delay in the appearance of the report is explained by the necessity of revising and verifying the statistics of births and deaths relating to the city of Cairo, which were found to be inaccurate, and by the fact that a census of Egypt was taken in 1897, the results of which it was thought desirable to await in order to obtain a more correct estimate of the population of the fourteen towns whose vital statistics are displayed. The figures which constitute the basis of this summary are admittedly deficient and faulty, both as regards number of events and accuracy of assigned death causes. They are, therefore, of very doubtful scientific value; still, from an administrative point or view, it appeared desirable to tabulate them more for the purpose of comparison with future registration than as a trustworthy representation of the real facts of Egyptian vital movements. The report is admirably drafted, the tables and charts are most skilfully constructed, and the conclusions drawn from them clearly stated. The statistics of the native and foreign populations are separately shown and in great detail. The pity is that so much labour and ingenuity have been expended on such faulty material. The section relating to hospital statistics embraces the period 1887-90, and includes the transactions of nineteen institutions. Particulars are also given regarding six hospitals for foreigners in Cairo and Alexandria.

THE MEDICAL PROFESSION IN GERMANY.—According to the *Reichsmedicinal-kalender* which has just appeared, the total number of medical practitioners in the German Empire at the end of 1898 was 25,757, being an increase of 884 as compared with the previous year. While the increase in the general population in 1875-85 was 9.7 per cent., and in 1885-95, 11.6 per cent., the number of medical practitioners increased in 1876-87 by 15.4 per cent., in 1887-95 by 46 per cent., and since 1895 by 11.5 per cent. The number of practitioners in Prussia is now 15,454, in Bavaria 2,803, in the kingdom of Saxony 111, in the kingdom of Würtemberg 851, in the Grand Duchy of Baden 1,000, in the Grand Duchy of Hesse 651, in Alsace-Lorraine 767, in the State of Hamburg 544, in Mecklenburg-Schwerin 276, in Brunswick 234, in Saxe-Weimar 195, in Oldenburg 144, in Bremen 141, in Anhalt 137, in Saxe-Coburg-Gotha 108, in Saxe-Meiningen 92, in Saxe-Altenburg 74, in Lübeck 66, in Lippe-Detmold 53, in Schwarzburg-Rudolstadt 39, in Mecklenburg-Strelitz 36, in Waldeck 34, in Schwarsburg-Sondershausen 32, in Schaumburg-Lippe 19, and in Reuss 18. The proportion of medical practitioners to population in the whole Empire is 4.93 per 10,000. In Prussia it is 4.85, in Bavaria 4.82, in Saxony 5.13, in Würtemberg 4.09, in Baden 5.80, in Hesse 6.27, in Mecklenburg-Schwerin 4.62, in Alsace-Lorraine 4.67, in Hamburg 7.98, in Bremen 7.18, and in Lübeck 7.92. In Munich the proportion of doctors is 14.2 per 10,000 inhabitants; in Dresden it is 12.1, in Leipzig 10.2, in Strassburg 15.2, in Stuttgart 12.3, in Nürnberg 7.7, in Brunswick 8.5, and in Chemnitz 5.9. In the other chief towns the number of medical practitioners relatively to population is as follows: Berlin 1 in 751, Breslau 1 in 774, Cologne 1 in 1,054, Frankfort-on-the-Main 1 in 783, Charlottenburg 1 in 532, Königsberg 1 in 735, Hanover 1 in 895, Halle 1 in 582, Magdeburg 1 in 1,269, Düsseldorf 1 in 1,107, Stettin 1 in 957, Danzig 1 in 872, Aachen 1 in 1,159, Altona 1 in 1,773, Dortmund 1 in 1,545, Elberfeld 1 in 2,144, Barmen 1 in 1,984, Krefeld 1 in 2,083. The number of doctors in Germany tends steadily to increase. During the last summer semester there were 8,633 students of medicine in the universities, as compared with 8,310 in the corresponding semester of 1897.

THE French Otological and Laryngological Society will hold its annual meeting this year in Paris on May 1st and following days. The questions proposed for discussion are: (1) Anosmia; (2) Testing of the Hearing Power.

MEDICAL EDUCATION IN CONSTANTINOPLE.—Professor Rieder Bey, who was some time ago entrusted with a commission to reorganise the Turkish Imperial Faculty of Medicine, and also the School of Military Medicine of Constantinople, has presented a detailed report in which he recommends a considerable extension of the courses of clinical instruction and practical studies. The pupils of the Military Medical School will in future be required to attend Professor Rieder's clinic for two years after taking their degree before they are sent to join their regiments.

MEDICAL WOMEN IN ROUMANIA.—By a recent ordinance of the Superior Sanitary Council of Roumania women will not henceforth be permitted to hold the office of *plasa* medical officer (a sort of Poor-law doctor paid by the State) or physician to a communal hospital. Only large hospitals, with special departments for diseases of women, are to be allowed to have female physicians or surgeons on the staff. As there are very few such hospitals in Roumania, this ordinance practically closes the door of public employment in the face of the medical woman in that country.

THE IRISH MEDICAL SCHOOLS' AND GRADUATES' ASSOCIATION.—The St. Patrick's Festival Dinner of the Irish Medical Schools' and Graduates' Association will this year be held on Saturday, March 18th, at 7.15 P.M., at the Café Monico, Piccadilly Circus. The chair will be taken by the President, Sir William Thomson, of Dublin. The Association will have the honour of entertaining as the guest of the evening a distinguished Irishman, General Sir George White, V.C., G.C.B., G.C.S.I., G.C.I.E., the Quartermaster-General, and late Commander-in-Chief in India. We are requested to state that as a very large attendance is anticipated, members should make early application for dinner tickets for themselves and their guests to the Honorary Secretary, 46, Harley Street, W.

A CONGRESS ON LIFE INSURANCE.—A Congress on Life Insurance is to be held in Brussels from September 25th to 30th, 1899. A circular has been sent out by Dr. Poël, Chief Physician to the Belgian Company of General Insurances, stating the objects of the Congress to be to establish closer fraternal relations among physicians connected with insurance offices, to centralise statistics, and to submit to general discussion medical questions connected with insurance. Among these he mentions the following as instances of the important matters with which such a congress might profitably deal: The continuity of morbid states throughout life; the study of constitutional flaws; the admissibility of glycosuric, albuminuric, and syphilitic lives; neurasthenic patients; traumatic neuroses (accidents); statistics as regards life and as regards accidents; the necessity of a uniform medical schedule in regard to life insurances; general paralysis; professional secrecy in regard to insurance companies, etc. The hope is expressed that one result of the Congress may be the formation in each country of a permanent committee which should deal especially with medical questions regarding life insurance.

MEDICAL VACANCIES.

The following vacancies are announced:—

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES.—Clinical Assistant. Applications to the Secretary, John Bright Street, Birmingham, by March [illegible].

BRISTOL CITY HOSPITALS.—Resident Medical Officer at the Ham Green Fever Hospital. Salary, £100 per annum, with board, lodging, and washing. Applications to Dr. D. S. Davies, Public Health Offices, 40, Prince Street, Bristol, by March 18th.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—Registrar. Honorarium guineas per annum. Applications to the Secretary.

COVENTRY AND WARWICKSHIRE ASYLUM, Coventry.—Assistant House-Surgeon. Appointment for six months, subject to re-election. Salary at the rate of £50 per annum, with rooms, board, washing, and attendance. Applications to the Secretary by March 11th.

CUMBERLAND INFIRMARY, Carlisle.—Assistant House-Surgeon. Salary, £40 per annum, with board, lodging, and washing. Applications to the Secretary by March 20th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Assistant Anæsthetist. Applications to the Secretary by March 20th.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—House-Surgeon. Board and residence provided, and honorarium of £25 on completion of six months' approved service. Applications to the Secretary by March 18th.

EDINBURGH UNIVERSITY.—Lecturer on Diseases of Tropical Climates. Applications to the Secretary of the University Court by March 6th.

EDINBURGH: VICTORIA HOSPITAL FOR CONSUMPTION.—Resident Physician; and a Non-resident Medical Officer. Appointments for six months. Salary at the rates of £20 and £30 per annum respectively. Applications to the Honorary Secretaries, 1, North Charlotte Street, Edinburgh, by March 11th.

GLASGOW UNIVERSITY.—Professor of Pathology. Salary, £1,100. Applications to Alan E. Clapperton, Secretary of the Glasgow University Court, 91, West Regent Street Glasgow, by March 24th.

GREAT NORTHERN HOSPITAL.—Surgeon to In-patients; must be F.R.C.S. Junior House-Surgeon. Appointment for six months. Salary at the rate of £80 per annum, with board, lodging, and washing. Also Assistant Anæsthetist. Appointment for six months, but eligible for re-election. Honorarium at the rate of 10 guineas per annum. Applications to the Secretary for the first by March 15th and for the latter two by March 20th.

KING'S COLLEGE, London.—Sambrook Surgical Registrar and Assistant Ophthalmic Surgeon at King's College Hospital. Applications to the Secretary for the former by March 18th.

LANCASHIRE COUNTY ASYLUM, Whittingham.—Junior Assistant Medical Officer, unmarried and not over 30 years of age. Salary, commencing at £100 per annum, increasing to £250, with furnished apartments, board, attendance, and washing. Applications to the Medical Superintendent.

LEICESTER INFIRMARY.—Assistant House-Surgeon. Honorarium £42 for twelve months, with board, residence, and washing. Applications to the Secretary, 24, Friar Lane, Leicester, by March 20th.

LIVERPOOL NORTHERN HOSPITAL.—Assistant House-Surgeon. Salary, £70 per annum, with residence and maintenance. Applications to the Chairman of the Committee by March 9th.

LONDON HOSPITAL, Whitechapel, E.—Surgical Registrar. Salary, £100 per annum. Applications to the House-Governor by March 16th.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Assistant Resident Medical Officer. Appointment for six months. Residence, board, and washing provided, and honorarium of 5 guineas. Applications to the Secretary by March 16th.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—House-Physician, House-Surgeon, Assistant House-Physician, and Assistant House-Surgeon. Appointments for six months. The two former will receive salary at the rate of £40 per annum, and the two latter at the rate of £20 per annum. Applications to the Secretery by March 13th.

MILLER HOSPITAL AND ROYAL KENT DISPENSARY, Greenwich Road, S.E.—Junior Resident Medical Officer. Salary, £40 per annum, with board, attendance, and washing. Appointment for six months, with prospect of re-election as Senior. Applications to the Secretary by March 8th.

PLYMOUTH: SOUTH DEVON AND EAST CORNWALL HOSPITAL.—Assistant House-Surgeon. Appointment for six months, but renewable. Salary at the rate of £50 per annum, with board and residence. Applications to the Secretary by March 11th.

ROYAL COLLEGE OF PHYSICIANS OF LONDON AND ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Director of Conjoint Laboratories. Applications to the Secretary, Examination Hall, Victoria Embankment, W.C., by March 15th.

ST. GEORGE HANOVER SQUARE PROVIDENT DISPENSARY, Little Grosvenor Street.—Resident Medical Officer. Salary, £100 per annum, with allowance about £30, and residence. Applications to the Secretary by March 10th.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN, Marylebone Road, N.W.—Anæsthetist. Honorarium, £20 per annum. Applications to the Secretary by March 10th.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—Assistant House-Surgeon. Salary, £30 per annum, with board, lodging, and washing. Applications to the House-Surgeon by March 15th.

STOCKPORT INFIRMARY.—Assistant House-Surgeon and Visiting Surgeon. Salary, £70 per annum, with board, washing, and residence. Applications to the Secretary by March 14th.

VENTNOR: ROYAL NATIONAL HOSPITAL FOR CONSUMPTION.—Clinical Assistant for three or six months. Residence, board, and washing provided. Applications to the Resident Medical Officer.

WEST BROMWICH DISTRICT HOSPITAL.—Resident Assistant House-Surgeon. Appointment for six months. Board, lodging, and washing provided. Gratuity £20. Applications to the Secretary.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician and House-Surgeon. Appointments for six months. Applications to the Secretary-Superintendent by March 22nd.

MEDICAL APPOINTMENTS.

ADAMS, W. D., M.B., appointed Medical Officer of the Workhouse and the Second District of the Guiltcross Union.

ALLEN, W., M.D., appointed Medical Officer of Health to the Benfieldside Urban District Council.

BENNETT, F. D., M.R.C.S., L.R.C.P., appointed Assistant Anæsthetist to the Royal Ear Hospital, Frith Street, Soho.

BENSON, P. L., M.D., D.P.H., reappointed Medical Officer of Health for Rural District of Buckingham.

BRODRICK, C. C., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer of Health to the Tavistock Urban District Council.

COOPER, Alfred, F.R.C.S., appointed Honorary Consulting Surgeon to the St. Mark's Hospital.

CURETON, Edward, M.D.Brux., M.R.C.P.Edin., appointed Honorary Consulting Physician to the Montgomeryshire Infirmary.

FENWICK, P. Clennell, M.B.Lond., M.R.C.S., L.R.C.P., appointed Surgeon to Christchurch Hospital, New Zealand.

FORSYTH, Robert, M.B., C.M.Glasg., appointed Medical Officer and Public Vaccinator for the Cramlington District of the Tynemouth Union, *vice* Robert Anderson, M.D., resigned.

GIBBONS, Henry, M.B., C.M.Aberd., appointed Medical Officer for the Desborough District of the Kettering Union.

HODGES, James, M.R.C.S.Eng., L.S.A., appointed Medical Officer of Health to the Edmonton Urban District Council.

KEMPE, Gilbert, M.D., B.S.Dunelm, M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer of Health for the Salisbury Rural District.

LANGSTON, John James, L.R.C.P.I., L.M., L.S.A., appointed Medical Officer for the No. 6 District of the Lambeth Union.

LAVERICK, J. B., M.B., C.M.Glasg., appointed Medical Officer for the Lythe District of the Whitby Union.

MILLER, Robert Craig, M.B., appointed Medical Officer for the Dervock Dispensary District, *vice* P. G. Camack, M.D.Glasg., resigned.

MORE, John, L.R.C.P.Lond., M.R.C.S.Eng., appointed Medical Officer for the Rothwell District of the Kettering Union, *vice* James More, M.D.Edin., resigned.

NORMAN, Frederick, M.D.Brux., D.P.H., L.R.C.P.Lond., M.R.C.S., appointed Medical Officer for the Eighth District of the Lambeth Union, *vice* Dr. Percy Fox.

PRATT, John W., L.R.C.P.Edin., M.R.C.S., reappointed Medical Officer of Health to the Wiveliscombe Urban District Council.

ROBERTS, K., L.R.C.P.Lond., M.R.C.S., appointed Medical Officer of Health to the Ampthill Rural District Council.

ROSS, James M., M.B., C.M., B.Sc.Edin., appointed County Medical Officer of Health for Wilts.

SPROULLE, A. E., L.R.C.P., L.R.C.S.I., appointed Medical Officer of Health to the Withernsea Urban District Council.

TAYLOR, E. C., M.D., appointed Medical Officer of the Workhouse of the Parish of St. John, Hampstead.

ST. THOMAS'S HOSPITAL.—The following gentlemen have been appointed House Officers from March 7th:

House-Physicians.—E. A. Gates, L.R.C.P., M.R.C.S.; A. E. Stevens, M.B.Durh., L.R.C.P., M.R.C.S.

Assistant House-Physicians.—E. H. Ross, L.R.C.P., M.R.C.S.; H. C. Thorp, M.A., M.B., B.C.Camb.

House-Surgeons.—S. O. Bingham, L.R.C.P., M.R.C.S.; E. M. Corner, M.A., M.B., B.C.Camb., B.Sc.Lond., L.R.C.P., M.R.C.S.; J. A. Barnes, L.R.C.P., M.R.C.S.; J. E. Kilvert, L.R.C.P., M.R.C.S.

Assistant House-Surgeons.—H. J. Phillips, L.R.C.P., M.R.C.S.; P. W. G. Sargent, M.A., M.B., B.C.Camb., L.R.C.P., M.R.C.S.; S. A. Lucas, L.R.C.P., M.R.C.S.; H. T. D. Acland, L.R.C.P., M.R.C.S.

Obstetric House-Physicians.—(Senior) R. H. Bell, M.A., M.B., B.C.Camb., L.R.C.P., M.R.C.S.; (Junior) S. H. Belfrage, M.B.Lond., L.R.C.P., M.R.C.S.

Ophthalmic House-Surgeons.—(Senior) J. S. Hall, L.R.C.P., M.R.C.S.; (Junior) T. Hoban, L.R.C.P., M.R.C.S.

Clinical Assistants in the Special Departments for Diseases of the Throat, Skin, and Ear.—Throat: E. C. Bourdas, L.R.C.P., M.R.C.S. Skin: J. Gaff, L.R.C.P., M.R.C.S. Ear: A. W. Jones, L.R.C.P., M.R.C.S.

Clinical Assistant in the Electrical Department.—A. Bevan, L.R.C.P., M.R.C.S.

Several other gentlemen who held offices before have received an extension of their appointments.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 8.30 P.M.—Dr. Samuel West: Some of the Clinical Aspects of Granular Kidney. (Lettsomian Lecture III.)

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Mr. L. A. Bidwell: The Examination of the Abdominal Viscera. (Lecture I).

Royal College of Surgeons, 5 P.M.—Professor F. G. Parsons: On Joints of Mammals contrasted with those of Man. (Lecture I.)

Odontological Society of Great Britain, 40, Leicester Square, W.C., 8 P.M.—Papers by Mr. C. S. Tomes and Mr. F. T. Paul. Casual communication by Mr. Ashley Barrett.

TUESDAY.

West End Hospital for Diseases of the Nervous System, 73, Welbeck Street, W., 4 P.M.—Dr. T. D. Savill: Electricity in the Treatment and Diagnosis of Diseases of the Nervous System.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C., 3.30 P.M.—Mr. Ballance: Surgery of the Nervous System.

Chelsea Clinical Society, Jenner Institute of Preventive Medicine, 8.30 P.M.—Dr. Allan Macfadyen: Enteric Fever and Diphtheria in their Bacteriological Aspects.

Royal College of Physicians of London, 5 P.M.—Dr. G. R. Murray: On the Pathology of the Thyroid Gland. (Goulstonian Lecture I.)

Pathological Society of London, 20, Hanover Square, W., 8.30 P.M.—Adjourned discussion on Pseudo-tuberculosis. The following speakers are expected to take part in the debate: Dr. J. F. Payne, Professor John MacFadyean, Mr. Foulerton, Dr. Wethered, Mr. W. C. Pakes, Dr. W. S. Lazarus-Barlow. Lantern slides, microscopic slides, and specimens illustrating pseudo-tuberculosis will be shown. Other card specimens will also be shown.

WEDNESDAY.

Medical Society of London, Whitehall Rooms, Hôtel Métropole, 7.30 P.M.—126th Anniversary Dinner.

Royal College of Surgeons, 5 P.M.—Professor F. G. Parsons: On Joints of Mammals contrasted with those of Man. (Lecture II.)

Dermatological Society of London, 11, Chandos Street, Cavendish Square, 5.15 P.M.—Demonstration of Clinical Cases.

Sanitary Institute, 8 P.M.—Discussion on the Establishment of Public Abattoirs in the Metropolis in relation to the Prevention of Tuberculosis, to be opened by Dr. W. A. Bond.

Royal London Ophthalmic Hospital, Moorfields, 1 P.M.—Mr. Nettleship: On Retrobulbar Neuritis.

Hospital for Consumption and Diseases of the Chest, Brompton, 4 P.M.—Dr. Acland: On Bronchiectasis.

Hunterian Society, 8.30 P.M.—Pathological evening. Specimens will be shown by Sir Hugh Beevor, Dr. Goodall, Dr. F. Oliver, Mr. Targett, and other Fellows.

Evelina Hospital, S.E., 4.30 P.M.—Dr. Frederic Willcocks: Clinical Demonstration on Medical Cases (Post-graduate Course).

THURSDAY.

Royal College of Physicians of London, 5 P.M.—Dr. G. R. Murray: On the Pathology of the Thyroid Gland. (Goulstonian Lecture II.)

Hospital for Sick Children, Great Ormond Street, W.C., 4 P.M.—Dr. Barlow: Demonstration of Selected Cases.

Ophthalmological Society of the United Kingdom.—Card Specimens at 8 P.M. Papers at 8.30 P.M.—Mr. C. D. Marshall: Epithelial Implantation Cysts of the Iris. Mr. Work Dodd: Green Vision in a case of Tabes Dorsalis. Messrs. Arnold Lawson and Sutherland: Further note on a case of Albuminuric Retinitis in a Child. Mr. E. Donaldson: Strabismus Fixus.

London Temperance Hospital, 2 P.M.—Dr. Soltau Fenwick: Clinical and Pathological Demonstration to Senior Students.

St. John's Hospital for Diseases of the Skin, 49, Leicester Square, 4.30 P.M.—Dr. Alfred Eddowes: Cases of Keloid and other Affections of Scars.

British Gynæcological Society, 8.30 P.M.—Specimens will be shown by Mr. C. Ryall and Dr. Winson Ramsay. Papers: Dr. Granville Bantock: The Modern Doctrine of Bacteriology or the Germ Theory of Disease, with special reference to gynæcology. Dr. James Oliver: Adenoma Universale of the Endometrium infiltrating the Myometrium.

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Mr. L. A. Bidwell: The Examination of the Abdominal Viscera. (Lecture II.)

Charing Cross Hospital, Post-Graduate Course, 4 P.M.—Mr. Gibbs: Demonstration of Surgical Cases.

FRIDAY.

Royal College of Surgeons, 5 P.M.—Professor F. G. Parsons: On Joints of Mammals contrasted with those of Man. (Lecture III.)

Clinical Society of London, 8.30 P.M.—Mr. Betham Robinson: Hydatid Cysts of the Upper Lobe of the Right Lung and Liver successfully Removed. Mr. A. E. Barker and Dr. N. Nabarro: A case of Pancreatic Cyst treated by Incision and Drainage. Mr. Battle: Removal of a large Fungating Tumour of the Skull with subsequent grafting of the dura mater. Mr. Arbuthnot Lane: A case of Erasion of the Ankle-joint illustrating a new Operative Procedure.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to insure insertion in the current issue.

BIRTHS.

COLE.—On February 23rd, at Sneinton, Nottingham, the wife of George Cole, M.R.C.S., L.R.C.P., of a daughter.

HARGREAVES.—On January 10th, at Akaroa, New Zealand, the wife of W. H. Hargreaves, M.R.C.S.Eng., L.R.C.P.Lond., of a daughter.

MARRIAGE.

SHINE—FITZGERALD.—On February 14th, at Holy Trinity Church, Brook Green, London, by the Rev. Father Grant, assisted by the Rev. Father Hill, Holyrood, Barnsley, John Power Shine, M.B., of Bicket Villa, Barnsley, to Margaret Mary Josephine (Gretta) Apjohn, fourth daughter of John Connell Fitzgerald, Esq., Abington House, Murroe, co. Limerick.

DEATH.

ARKLE.—On February 22nd, at 66, Wimpole Street, W., from pneumonia, Charles Joseph Arkle, M.D., F.R.C.P., fifth son of the late Benjamin Arkle, of Liverpool, aged 37.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances.*—Daily, 2. *Operations.*—Tu. W. F., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR. *Attendances.*—M. W. Th. S., 3; Tu. F., 5. *Operations.*—I.p., Tu., 2.30; o.p., F., 2.

CHARING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.45; Dental, M., 9; Throat and Ear, F., 9.30. *Operations.*—Th. F. S., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—M. W. Th. F., 2.

GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F., 2.30; Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

GUY'S. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 2. *Operations.*—Tu. F., 1.30; (Ophthalmic), M., 1.30; Th., 2.

HOSPITAL FOR WOMEN, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

KING'S COLLEGE. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, daily, 2; o.p., daily, 1.30; Eye, M. W. Th., 1.30; Ear, Th., 2.30; Throat, M., 1.30; F., 2; Dental, M. Th., 10; Skin, W., 1.30. *Operations.*—W. Th. F., 2.

LONDON. *Attendances.*—Medical, daily, i.p., 2; o.p., 1.30; Surgical, daily, 1.30 and 2; Obstetric, M. Tu. Th. F., 2; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, W., 9; Skin, Th., 9; Dental, Tu., 9. *Operations.*—Daily, 2.

LONDON TEMPERANCE. *Attendances.*—Medical, M. Tu. W. Th. F., 1.30; Surgical, M. Th., 1.30. *Operations.*—M. Th., 4.30.

LONDON THROAT, Great Portland Street. *Attendances.*—Daily, 2; Tu. F., 6. *Operations.*—Daily, 2.

METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 2; S., 9; Obstetric, W., 2; Eye, W., 2; Throat and Ear, Th., 2; Dental, Tu. Th. S., 9. *Operations.*—Tu. W., 2.30; Th., 4.

MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., 1.30; o.p., M., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu. F., 9; Skin, Tu., 4; Th., 9.30; Dental, M. F., 9.30; W., 9. *Operations.*—Daily, 1.30.

NATIONAL ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30. *Operations.*—Tu. F., 9.

NORTH-WEST LONDON. *Attendances.*—Medical, daily, exc. S., 2; S., 10; Surgical, daily, exc. W., 2; W., 10; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

ROYAL EAR, Frith Street. *Attendances.*—M. W. F., 3; Tu. F., 9.30 and 7.30. *Operations.*—Tu., 3.

ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

ROYAL FREE. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, W., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances.*—Daily, 2. *Operations.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily, 2.

ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. W. F., 2; o.p., W. S., 9; Eye, M. Tu. W. Th. S., 2; o.p., M. Th., 9; W. S., 2.30; Ear, Tu. F., 2; Skin, Tu., 9; Larynx, Tu. F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9; Electrical, M. Tu. Th. F., 1.30. *Operations.*—Daily, 1.30; (Ophthalmic), Tu. F. 2; Abdominal Section for Ovariotomy, F., 2.

ST. GEORGE'S. *Attendances.*—Medical and Surgical, daily; i.p., 1; o.p., 12; Obstetric, i.p., Tu. F. 1.45; o.p., M. Tu., 2.30; Eye, W. S., 1.30; Ear, Tu., 2; Skin, W., 2.45; Throat, F., 2; Orthopædic, F., 12; Dental, M. Tu. F., S., 12. *Operations.*—Daily, 1; Ophthalmic, M., 1; Dental, Th., 9.

ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males, S., 2; females, W., 9.30. *Operations.*—M., 9; Tu., 2.30.

ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 12.45; Obstetric, Tu. F., 1.45; o.p., M. Th., 1; Eye, Tu. F., 9; Ear, M. Th., 9; Throat, Tu. F., 3; Skin, M. Th., 9; Dental, W. S., 9; Electro-Therapeutics, M. Th., 2.30; Children's Medical, Tu. F., 9. *Operations.*—M., 2.30; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances.*—M., 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F. 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Th., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. F., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—Gynæcological, M., 2; W., 2.30.

THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu, F., 6.30. *Operations.*—Daily, exc. M., 10.

UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. F., 1.30; Eye, M. W., 1.30; Ear, M. Th., 9; Skin, Tu. F., 2; Throat, M. Th., 9; Dental, Tu. F., 9.30. *Operations.*—Tu. W. Th., 2.

WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th., 2; Ear, Tu., 2; S., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, M. Th., 2; Skin, M. F., 2; Throat and Nose, Tu., 2; S., 10. *Operations.*—Daily, about 2.30; F., 10.

WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, Tu. F., 9.30; Ear, Tu., 1.30; Skin, W., 1.30; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are directed will be found under their respective headings.*

QUERIES.

K. N. G. desires to hear of a home or institution into which an infirm elderly lady could be received. She could pay 10s. to 15s. a week.

J. C. asks: Where can information be obtained as to the formation of an association of ladies for district nursing, suitable for a small town of about 2,000 inhabitants?

M.D. asks if there is any law in connection with the Foresters' Society which provides that a medical contract does not extend to venereal disease. It is not usual to have written agreements with clubs.

CUPRIC ELECTROLYSIS IN OZÆNA.

G. F. N.—Our correspondent will find Dr. McBride's paper on this subject, in which the method of treatment is fully described, in the *Edinburgh Medical Journal* for March, p. 217.

EDUCATION OF DEAF-MUTES.

STAPES desires to hear of some place to which a deaf-mute, the son of middle-class parents, could be sent for education. A boarding school would be preferred.

*** For such a case (from the West of England) the most convenient boarding school would probably be the West of England Institution for the Deaf and Dumb, Exeter. Ordinary pupils pay £20 per annum, private pupils £50. Application should be made to the Secretary or Superintendent.

CHILBLAINS,

PRACTITIONER asks for hints in the treatment of chilblains.

*** In the BRITISH MEDICAL JOURNAL of April 19th, 1890, it was reported that Professor Baelz, writing from Japan to the *Monats. f. prakt. Derm.*, vol. x, No. 6, p. 288, recommended the following treatment for chilblains and chapped hands: ℞ Caustic potash, ½ per cent.; glycerine and alcohol, of each 20 per cent.; water, 60 per cent. The hands are bathed in warm water, and this mixture is then rubbed into the skin. This is done once daily, and in two or three days a cure is said to be the result.

In the JOURNAL of February 28th, 1891, p. 503, Surgeon W. G. Macpherson, Medical Staff (Woolwich), wrote: The effect of the application of ichthyol to chilblains is so marked as to deserve notice. The unguentum ichthyol (30 per cent. with lanolin or vaseline) relieves the excessive irritation completely and rapidly, and its continued use wil cure the condition.

THE PHARMACOLOGY OF THE SUPRARENAL GLAND.

MR. J. C. MCWALTER (Dublin) writes: Will Dr. Lermitte supplement his valuable paper in the JOURNAL (February 18th, p. 467) by stating whether he used the extractum suprarenale hæmostaticum or merely a tablet representing 5 gr. of the crude gland? Königstein regards the extract, locally applied, as an anæmia-producing agent *par excellence* for all mucous membranes. A 10 per cent. aqueous solution visibly dilates the pupil, and induces energetic rhythmic contractions when dropped upon the heart of a frog. According to Bidl the contraction is due to the action of the extract upon the muscles and the peripheral ganglion. It has been stated by Merck that the extract possesses the advantage of being sterilisable without detriment to its efficacy. I should be pleased to learn if Dr. Lermitte has any experience of this, as I am not aware of any other organic extract of which it is true.

ANSWERS.

H. H.—We are unable to hear of any institution where such a patient could be admitted; but we are informed that he could get proper treatment as an out-patient at the Hospital for Mental Diseases, Welbeck Street, W.

DR. GEO. STEELE PERKINS (Wimpole Street, W.), in answer to "L A. W.," suggests the application of the continuous current to the scalp twice a week, the positive pole on the spine and the negative pole applied to the head by means of a wire brush.

C.H.S.—Ptosis, like many other lesions, is not infrequently seen as a sequel to influenza. It depends upon so many different causes that, without thoroughly investigating the case, it would be impossible to suggest any treatment. The best course would probably be to suggest to the patient to consult a neurologist, as the condition may not improbably depend upon some central or peripheral nerve lesion.

CYCLE SADDLES.

DR. REUELL ATKINSON (Clifton) writes, with reference to various inquiries which have been made for a comfortable and hygienic cycle saddle, to recommend Pattisson's saddle, Model D.

TOWN DUST DESTRUCTOR.

DR. ALFRED ASHBY, M.O.H. (Reading) writes: In reply to "Provincial Mayor," on p. 514 of the BRITISH MEDICAL JOURNAL, I think *The Removal and Disposal of Town Refuse*, by W. H. Maxwell (the Sanitary Publishing Company, Limited, 15s. net), is the book he requires.

THE INEBRIATES ACT.

WOLVERHAMPTON.—Unless the lady signs a request (attested by a justice) for admission to and reception in a licensed retreat, or has been convicted three times within the preceding twelve months, or been found (after trial for some legal offence) to be a habitual drunkard, she cannot be made to enter an inebriate reformatory or retreat. It is doubtful if she would be certifiable as insane in her periodical outbreaks, and in any case she could not be legally detained in an asylum during the normal intervals. It is doubtful if a separation could be procured except by mutual consent, in which case the husband would have to give her an allowance; but legal advice is essential.

MASSAGE.

A. M.—The market, as regards London at least, is certainly overstocked, and there is very little demand for work of this description, but if a connection were assured the best course of instruction would probably be obtained in Stockholm.

WEST AFRICAN SERVICE.

J. W.—The risks to health and life on the West African Coast are undoubtedly considerable, but the emoluments are good. Our correspondent should balance in his own mind the advantages and disadvantages before embarking in such a career. There can be no doubt that, as the country gets more opened up, easier means of communication established, and Europeans are better housed and fed, the risks to the white man will diminish.

NOTES, LETTERS, Etc.

MEDICAL TITLES.

MR. GEO. E. JEAFFRESON (Framlingham) writes: Reply to "Hair Splitting." As the cap fits I wear it. I am L.S.A. 1857, and M.R.C.S. 1857. I am not a doctor of law, physic, music, or divinity, and of being an apothecary and surgeon I am in no way ashamed. I have no ambition to be mistaken for a University M D., nor to be addressed with the same prefix as farriers, quacks, medical herbalists, or licensees without a name. I believe it is bad for medical men to be addressed by their calling that is, differently to all other respectable citizens; we do not say Lawyer A., Parson B., Grocer C., etc. Why Doctor D? If licensed practitioners have "Doctor" assigned to them as a title the University M D.'s and Fellows will rigidly drop it. Solicitors are not Q.C.'s, curates are not bishops, collegiate licensees are not university graduates, and it seems to me downright snobbery to want a title belonging to others. I think, had I required a licence to practise medicine, that is, to do doctoring in 1867 instead of 1857, I should have asked it from the old city corporation which had done so much in the past for the improvement of medical education, and not from the physicians, who had just started their opposition licensing shop for snobs who were ashamed of the old name "apothecary," for they gave no name to the recipient of their licence, and the receiver had to accept from the city company the privilege of acting as an apothecary within certain limits. A country surgeon is good enough and strong enough to hold his own without meretricious titles, though he may be regarded as crazy for thinking so, and trying to make his *confrères* and neighbours think the same.

CORRECTOR writes: I have no desire to raise the question of the relative value of the different degrees and diplomas, but I feel bound to correct the misapprehension of "Honesty is the Best Policy," when he describes the L.S.A. as the lowest English qualification. I thought it was well known by this time that the L.S.A. dated after June 30th, 1887, is of precisely the same standard and character, and confers precisely the same privileges as the M.R.C.S., L.R.C.P. If "Honesty is the Best Policy" is still unable to believe that this is so, I would refer him to the report of the Visitor and Inspector appointed by the General Medical Council under the provisions of the Medical Acts.

A PAMPHLET ON QUACKERY.

THE Berlin Brandenburg *Aerztekammer* offers a prize of £20 for the best pamphlet on the dangers of quackery. The pamphlet, which is to be widely distributed, must, of course, be written in popular style.

THE TREATMENT OF DYSENTERY.

MAJOR R.A.M.C. writes: During two tours of Indian service I have had abundant opportunities of studying the effects of different remedies in acute dysentery, and my experience is directly opposed to that of Dr. J. J. Day as described in the BRITISH MEDICAL JOURNAL of February 4th, 1899. When in Secunderabad, a station of "dysenteric notoriety"—to use a phrase of the late Surgeon-General W. C. Maclean—I tried sulphate of magnesia in this disease, and the results were uniformly unfavourable. After two or three doses of the medicine the tormina and tenesmus invariable became much aggravated, the face assumed an expression of anxiety and suffering, and symptoms of both mental and physical depression set in. So marked was the distress following each dose of the medicine that the patients used to beg that it might be discontinued. On the other hand, I have found the action of ipecacuanha all that could be desired, so much so that during ten years' service in India I have seen only one fatal case of dysentery amongst Europeans, and in this case death was due to multiple abscesses in the liver.

The following is the routine treatment which I now adopt in all cases of acute dysentery in which no special indications exist: On being first seen the patient is given a small dose of castor oil guarded with tinct. opii. He is then put to bed, a layer of spongiopiline being applied over the abdomen, and placed on an exclusively milk diet. Pulv. ipecac. gr.xv is prescribed morning and evening, liq. opii sed. mxv being administered half an hour before the ipecacuanha. This treatment is kept up until well-marked "ipecacuanha motions" are established. The evening powder is then discontinued, but the morning one is still given for three or four days. If at the end of this time, as not infrequently happens, some looseness of the bowels continues, a mixture containing bismuthi nitrat. gr.x, liq. morphinæ mxv, is given three times a day. In very acute cases, where from the severity of the symptoms it is a matter of urgency to check the disease quickly, I have given two or three enemata of nitrate of silver, concurrently with ipecacuanha, with the best results. Strange as it may appear, these enemata cause little if any suffering. My experience convinces me that ipecacuanha is far and away superior to all other remedies in the treatment of acute dysentery occurring in India.

A Test for the Diffrentiation of Bacillus Coli Communis and Bacillus Typhosus.

Ch. M. writes: With reference to the account contained in the British Medical Journal of February 18th, p. 452, of the alleged new distinction between the bacillus coli communis and bacillus typhosus, worked out by Dr. Sydney Jamieson, of Sydney, New South Wales, I beg to point out that the facts enumerated therein have been observed for some years. It is well known that the bacillus coli communis will grow in ordinary sterilised healthy urine, and that the bacillus typhosus will not until this medium is rendered alkaline; and, furthermore, that if a suitable nitrogenous soil is inoculated with the former, the well recognised urinous odour characteristic of this micro-organism is manifest within a few days. Perhaps it is hardly worth mentioning also that the coli bacillus has often been described as one of the organisms very usually found in the fœtid urine passed by patients suffering from cystitis, and that this organism has already been described as one of the pathological factors in the disease.

The Prevention of Premature Burial.

According to the *New York Medical Record* a Bill has been introduced into the New York Legislature, the object of which is to prevent premature burial. It provides that in cities or places where there are 100 or more interments annually, each cemetery shall have a mortuary or mortuaries with a number of rooms sufficient to enable everybody received to be placed and kept therein a certain time. Each of these rooms must be at least 10 ft. in length, 6 ft. in width, and 10 ft. in height, with a door at least 6½ ft. high and 4 ft. wide. Over the door there is to be a transom kept open at all hours. The door must be kept unlocked at all times, and permission to inspect the body deposited shall be given at all hours of the day to the relatives or friends of the deceased. There is to be in each of the rooms a window at least 2 ft. wide and 3 ft. high, opening into the outer air. The attending physician or coroner must mention in the death certificate whether not one or all of the following signs of death have been noted: (1) Permanent cessation of respiration and circulation; (2) purple discoloration of the dependent parts of the body; (3) absence of blistering around a part of the skin touched with a red-hot iron; (4) rigor mortis; (5) signs of decomposition. No body shall be buried, cremated, or otherwise disposed of before twelve hours shall have elapsed from the time of death, as stated in the certificate of the attending physician or coroner, and before unequivocal signs of decomposition shall have appeared. The bodies of those dead from small-pox, scarlet fever, diphtheria, or Asiatic cholera are not to be exposed in the mortuary, nor need such exposition take place in cases in which death has resulted from an injury causing the destruction of any vital organs, nor any body which shall have been found dead in an advanced state of putrefaction; but in all cases the certificate of death must make mention of the five signs of death above given.

Belladonna for Eczema in Children.

Dr. H. B. Trehane Symons (Luxor, Egypt) writes: The paper by Dr. J. A. Coutts published in the British Medical Journal of January 28th on the treatment of broncho-pneumonia in children has caused me to recall the results obtained by the use of the same drug in some one or two dilatory cases of eczema which had resisted other expedients. I used the tincture 10 minims thrice daily. This seemed to stop the copious secretion and lessen the irritation, rapid general improvement going with this. Though not new, I believe this seemingly useful application of belladonna may be advantageously mentioned.

Water Gas.

Surgeon-Lieutenant-Colonel Thomas Cayger, A.M.R. (Liverpool) writes: One gain is likely to accrue from the report of the late Inter-Departmental Committee on Carburetted Water Gas, etc., that is, the calling of medical evidence in all cases of gas poisoning upon which inquests are held. In Garston, no medical evidence was called in one case at a time when pure carburetted water gas was issued to the district. Dr. Molyneux was in attendance, and I was called in to advise with him; there was no unwillingness on our part. The Home Secretary spoke in favour of inquests in all cases of lead poisoning in potteries when answering a question in the House of Commons. Too seldom is medical evidence called for in coroner's courts in cases where there is at least some doubt.

Academical Costume.

Senex writes: I am interested and amused at the correspondence respecting "Academical Costume." If the writers on the subject will refer to a little book on *Degrees, Gowns, and Hoods of British, Colonial, etc., and Foreign Universities and Colleges*, by the Rev. T. W. Wood. Vicar of Eldersfield, and Chaplain to the Order of St John of Jerusalem, they will find that no fewer than twelve theological and three musical colleges in England adopt both gowns and hoods. Surely the poor Dr, Fellow, or Member or Licentiate of Physic (whose education is equal, if not superior, to any possessing the above collegiate qualifications) may be allowed, if he desire it, a similar decoration.

The New Bill to Amend the Medical Acts.

Veritas writes: There can be no doubt whatever about the ambiguity you observe in the second clause of the new Bill to amend the Medical Acts, as far as depriving practitioners of their diplomas or degrees. The Council does not grant the diplomas, and consequently cannot take them from a practitioner. The removal of the name from the *Register* does not seem to damage the offender pecuniarily, simply because unqualified practitioners are allowed to roam about the country unmolested, and the line of demarcation between the "struck off" practitioner and these cannot be drawn. Were the country cleared of all lay practice, then offending practitioners could be struck off the *Register* for a limited period, as the first clause of the new Bill suggests, and power granted to act in a subordinate position, such as assistant officer of some institution, or some such position as would prevent the total impoverishment which would result in many cases from the complete annihilation of the chances of making a living until restored to the *Register*.

LETTERS, COMMUNICATIONS, Etc., have been received from:

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THE GOULSTONIAN LECTURES
ON THE
PATHOLOGY OF THE THYROID GLAND.*

Delivered before the Royal College of Physicians of London.

By GEORGE R. MURRAY, M.A., M.D.CAMB., F.R.C.P.,
Heath Professor of Comparative Pathology in the University of Durham;
Physician to the Royal Infirmary, Newcastle-upon-Tyne.

LECTURE I.

MR. PRESIDENT AND GENTLEMEN,—I must, in the first place, thank you very sincerely for the honour you have conferred upon me by asking me to deliver the Goulstonian Lectures for this year, an honour which I feel to be all the greater when I read the list of distinguished Fellows of this College who have preceded me in this lectureship, in whose footsteps I can but humbly endeavour to follow.

GENERAL SCOPE OF THE LECTURES.

In selecting the subject for these lectures I have been guided by three considerations. First, the widespread interest which has been aroused in the pathology and treatment of diseases of the thyroid gland during the last few years. Secondly, the good example which the subject affords of how experimental research in pathology yields results which are of the greatest importance and assistance to the physician in his daily work of treating disease. Thirdly, the opportunity which I have had of devoting some attention to the subject, may, I venture to hope, enable me to present it in a manner which will interest you.

I shall not attempt to cover the whole ground, but shall for the most part deal with those parts of the subject which I have been able to examine for myself, nor will time permit me to allude to all the valuable work which has been done by the many workers in this branch of pathology. I trust, therefore, that this explanation will excuse any omissions I may make in not referring to the work of others.

It will be convenient, first, to consider the development and structure of the thyroid gland and the method in which its characteristic secretion is produced. This will clear the way for the consideration of the results which follow when this function is diminished or lost by excision of the gland in animals or by its destruction by disease in man. The removal of the thyroidal insufficiency thus induced by maintaining a supply of secretion from other sources will be considered as a means of treatment. I propose also to deal with the question of compensatory hypertrophy, as illustrated by the thyroid gland; while, in conclusion, the pathology of exophthalmic goître will be considered as far as our present knowledge of the subject permits.

DEVELOPMENT AND STRUCTURE OF THE THYROID GLAND.

The embryology and comparative anatomy of the thyroid gland furnish us with important information as to the origin of its present situation, structure, and function in man. The gland is developed in the embryo in three different parts. A median diverticulum of the hypoblast which lines the pharynx of the embryo is formed between the ventral ends of the second visceral arches, while a lateral diverticulum is developed on each side from the posterior wall of the fourth visceral cleft. In man the median portion persists for a time as a hollow vesicle from which a small canal, the thyroglossal duct, leads to an opening on the dorsal surface of the tongue. At a later stage this vesicle becomes solid and the duct disappears, while its external opening on the surface of the tongue persists as the foramen cæcum in the adult. The two lateral diverticula fuse with the central portion, forming a mass shaped like a horseshoe encircling the embryonic larynx. All three portions become separated from the hypoblast from which they originated, and develop into a mass of branching cell-cylinders. These cell-cylinders are later divided up by the ingrowth of connective tissue containing blood vessels into separate vesicles. These gradually increase in size and become hollowed out by the accumulation of the colloid substance which is secreted by the epithelial cells into the lumen of the alveolus.

His[1] has found that in some cases the thyroglossal duct already mentioned does not become obliterated, but that it persists in the adult as the lingual duct, which has been traced from the foramen cæcum as far down as the hyoid bone. In some cases the middle lobe of the gland is continued upwards as a narrow tube, the thyroid duct as far as the hyoid bone. The late Professor Kanthack,[2] who examined a hundred adults for these ducts, however, found neither a lingual nor a thyroid duct in any of the cases which he investigated, and in many there was not even a foramen cæcum. The important fact remains that the thyroid gland is developed primarily as an outgrowth of the pharyngeal hypoblast, and in some lower animals this connection with the pharynx is still maintained. Andriezen[3] directed attention to the fact that the thyroid gland is represented in ascidians by a mass of glandular tissue, and in amphioxus by a hypobranchial organ which pours its secretion directly into the pharynx. In higher forms, such as fishes, the gland is embedded in the surrounding tissues, but the duct which communicates with the pharynx still remains. Thus both the ontogenetic and phylogenetic history clearly show that the gland as we now find it in man is descended from a secretory gland which originally was provided with a duct through which the secretion passed into the pharynx, just as the secretion of the salivary glands still flows into the mouth. In this we find an explanation of the fact that the activity of the thyroid secretion is not destroyed by passage through the stomach, but still can produce all its usual physiological effects when swallowed and absorbed from the alimentary canal, as it doubtless was by our remote ancestors. This mode of evolution seems to indicate that a ductless gland with an internal secretion is a higher stage of development of a duct gland with an external secretion.

The fully-developed gland consists of three parts, two lateral lobes and the isthmus which unites them. The two lobes are closely applied to the sides of the larynx and trachea, and extend backwards as far as the sides of the pharynx and œsophagus. At the level of the isthmus the recurrent laryngeal nerve lies in the angle between the œsophagus and the trachea, being covered externally by the lateral lobe of the gland on each side. In front the gland is covered by the sterno-hyoid, sterno-thyroid, and omo-hyoid muscles. Laterally the lobes extend outwards in front of the common carotid arteries. Each lateral lobe is shaped somewhat like an almond, but the upper end is narrower and more pointed than the lower. The lower end lies on the fifth or sixth ring of the trachea, while the upper is generally on a level with the middle of the thyroid cartilage. The position of the isthmus varies, but it generally lies in front of the second, third, and fourth rings of the trachea. In many cases variously estimated at from 40 to 68 per cent., the pyramid or middle lobe extends as a thin process from the isthmus or from a neighbouring part of one of the lateral lobes up to the hyoid bone, to which it is attached by muscular or fibrous tissue. The gland is firmly fixed to the larynx and trachea by fibrous tissue, so that it follows the movements of these structures which take place during deglutition. The gland when freshly removed is of a dark brown-red colour. It usually weighs from an ounce to an ounce and a-half (30 to 50 grams). It is relatively larger in the infant than in the adult, thus Huschke and Weibgen[4] found that in newborn children the weight of the gland was equal to from $\frac{1}{100}$ to $\frac{1}{500}$, and in adults from $\frac{1}{1333}$ to $\frac{1}{1800}$ of the total weight of the body. The gland is as a rule somewhat larger in women than in men, though Ewald[5] makes a contrary statement supported by Weibgen, who gives the average weight in the male as 34.2 grams and in the female as 29.3 grams. Each lobe is about 2 inches (50 mm.) long, 1¼ inch (30 mm.) broad, and ¾ inch (18 mm.) deep. The right is generally a little larger than the left. The isthmus is about ½ inch (12 mm.) broad and ¼ to ¾ inch deep. The whole gland, however, is liable to considerable variations in structure, such as inequality in size between the two lobes, absence of one lobe, and absence or irregularity of the isthmus.

There is a rich blood supply from four arteries, the superior and inferior thyroid arteries on each side, and in some cases

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* The expenses of this research have been partly defrayed by a grant from the Scientific Grants Committee of the British Medical Association.

there is a further supply by the thyroidea ima. These arteries are tortuous, and very large for the size of the gland which they supply; they form many anastomoses, and finally end in a network of capillaries closely surrounding each alveolus. The capillaries come into close relationship with the epithelial cells, and some capillary loops even project between them. The veins, which according to Sappey have no valves, unite to form the superior, middle, and inferior thyroid veins, the two former of which open into the internal jugular vein, while the latter enters the innominata. The lymphatics start from the lymph spaces in the connective tissue which surrounds and unites the vesicles of the gland. They unite to form large trunks, which freely anastomose both in the substance of the gland and also upon its surface. On leaving the gland the lymphatics pass through the superior and inferior deep cervical glands to join the jugular lymphatic trunk, which on the left opens into the thoracic duct, and on the right into the right lymphatic duct, each of which discharges into the venous blood stream at the point where the innominate vein is formed by the junction of the internal jugular and subclavian veins on each side. The nerves which supply the gland come from the middle and inferior cervical sympathetic ganglia, and pass into it with the blood vessels. The nerve branches are in close proximity to the base of the epithelial cells, but the actual nerve endings have not yet been described.

HISTOLOGY.

Externally the gland is invested by a firm fibrous capsule from which septa extend inwards, partially dividing it into lobules of various sizes. Still finer divisions of this connective tissue framework surround the individual follicles and support the small divisions of the blood vessels, lymphatics, and nerves. The glandular structure consists of large numbers of closely aggregated follicles which vary in size and shape. In section they appear round, polyhedral, or flattened, and the diameter in man ranges from 0.045 mm. to 1 mm. In the great majority of the follicles there is a single layer of cubical epithelial cells surrounding a central area filled with their secretion the colloid substance. Some of the follicles seen in a section of the gland appear as masses of cubical cells without any central space. This appearance is in some cases due to one side of the alveolus alone being exposed in the section, in others to the alveolus not being distended with secretion. No basement membrane to this epithelium has been described. Two kinds of cells are found in this epithelium, the chief cells, and the colloid cells. The chief cells are usually cylindrical, sometimes cubical in shape. They measure from 8 to 16 μ in height and from 6 to 8 μ in breadth, while the nucleus, which is round, measures from 5 to 6 μ in diameter. The colloid cells are considerably shorter than the chief cells, thus Hürthle[6] found in one specimen that while the chief cells measured 12 to 14 μ in height, the colloid cells were only 7 to 9 μ high. The colloid cells are also distinguishable from the chief cells by the readiness with which they take up those staining fluids which also stain the colloid substance in the centre of the follicle. Intermediate types may also be observed.

The colloid substance which occupies the central space of the alveolus is a yellow glairy fluid which stains uniformly in microscopical sections. Scattered through it may sometimes be seen white blood corpuscles, epithelial cells, and the remains of red blood corpuscles undergoing degenerative changes.

The general appearance of the gland is shown in Figs. 1 and 2, which are taken from transverse sections through the lateral lobe of the thyroid gland of a bonnet monkey. This and the other microphotographs, which will be shown later, have been kindly prepared from my specimens by Dr. R. A. Bolam. This illustration also shows how closely in this animal the parathyroid is attached to the thyroid gland, in which it may even be embedded as in Fig. 2, an association to which I shall refer more fully in dealing with the functions of the gland.

FORMATION AND ABSORPTION OF THYROID SECRETION.

The colloid substance is the secretion of the epithelial cells which line the alveoli. Hürthle has shown by observations made on normal glands and on portions of gland in which increased secretory activity had been stimulated either by removal of the greater part of the gland or by ligature of the bile duct so as to cause absorption of bile products into the blood, that the secretion may be formed by the epithelial cells in two ways. The colloid may be either formed in droplets in the cells and then gradually extruded into the lumen of the alveolus, or whole cells may break down and be discharged into the colloid substance, a part of which they thus help to form. In the first method the same cell continues to secrete, while in the second its place is taken by one of the reserve cells. It is doubtful if both these methods obtain during normal secretion, the first being probably the usual manner in which secretion takes place. The large amount of secretion which is found in many alveoli indicates that under ordinary circumstances it is not discharged as soon as it is formed, but that the central portion of the alveolus serves as a reservoir where the secretion is stored for a time before it finally escapes from the gland.

As the thyroid is a ductless gland it is clear that the secretion can only escape by either the lymphatics or the veins. The evidence we possess shows that the former is the usual path, for it was shown by King and by Horsley[7] that by applying pressure to the gland the colloid could be squeezed from the acini into the interacinous lymphatic spaces, where it could be seen with the microscope. Biondi and Hürthle have found that this escape of the secretion from the alveolus may occur in two ways. The wall of the alveolus, not necessarily as the result of distension, becomes thinned out at one point and finally ruptures, allowing the colloid to escape directly into the lymphatic space outside, while the empty follicle collapses and forms the starting point for the growth of a new one. Hürthle has found that the secretion can also pass out from the alveolus without rupture of the wall. He injected Berlin blue into the lymphatic spaces of the gland, using an intermittent pressure, and found that it passed on into the interior of the alveoli through minute intercellular channels, in which it could be seen. He also found that when the secretory activity was stimulated the colloid itself could be seen lying in these intercellular channels continuous with the colloid in the alveolus at one end and with that filling the lymph spaces at the other, proving that it was passing from the former position to the latter. By one or other of these methods, the secretion flows into and mingles with the lymph, which bathes the interalveolar spaces of the gland, and with it flows along the path already described to be discharged into the blood stream in the innominate vein, and so distributed to all parts of the body.

No doubt as in other glands the activity of secretion varies according to circumstances. Of these, however, we possess but little information. Stimulation of the laryngeal nerves or of the sympathetic with the faradic current produces no change indicative of increased secretion. Pilocarpin produces a marked increase in the secretion of the colloid, as was shown by Wyss, and Schäfer found that the changes produced in the cells were similar to those which occur in other secretory glands under the stimulating influence of this drug. As already mentioned, the presence of an excess of bile constituents in the blood after ligature of the bile duct also stimulates thyroidal secretion. Removal of the greater part of the gland was also shown by Hürthle to serve as a stimulus to more active secretion in the remaining portion.

COMPOSITION OF THYROIDAL SECRETION.

At one time the thyroid gland was considered to be an excretory rather than a secretory gland, and the excretion a mucinoid substance, the retention of which led to an accumulation of mucin in the body and the production of the subcutaneous swelling in myxœdema.

Further investigation has shown that the colloid substance is a true secretion which does not contain mucin. Our knowledge of the actual composition of this secretion is by no means complete, but several important constituents have now been separated from it. Most of those who have examined the composition of the secretion have considered the proteids to be the important and active constituents of it. Notkin[8] regards thyreoproteid, a substance which he isolated from the gland, as an active constituent which behaves like an enzyme. Gourlay[9] found that a nucleo-proteid was the only proteid to be obtained from the thyroid in any quantity, and that it contained phosphorus, which by Morkutun's analysis has been shown to amount to 0.32 per cent. Baumann and Roos[10] made the important discovery that the colloid substance contains iodine in an organic combination with proteid which they named "thyroiodin." This substance contains 9.3 per cent. of iodine, and 0.56 per cent. of phosphorus.

Hutchison[11] has found that two proteids are contained in the gland—a nucleo-albumin, which is contained in the epithelial cells and the colloid material which fills the acini. The formed secretion of the gland is split up by gastric digestion into two parts, one of which is proteid, contains only a small amount of iodine, and has but slight physiological action; the other is non-proteid, contains more iodine and all the phosphorus of the original colloid, and is more active in removing symptoms due to loss of thyroid secretion than the proteid portion. S. Fraenkel[12] obtained a crystalline substance with the formula $C_6H_{11}N_3O_5$ from the gland, which he named "thyreo-antitoxin." There is, however, no satisfactory evidence to show that this body is endowed with active properties.

It is evident from these observations that the secretion is a complex body, and we cannot as yet say whether its remarkable properties depend on one or, as is more probable, several constituents. Be this as it may, we shall now consider what functions are fulfilled by the secretion as a whole, for that is the form in which it mingles with the blood, and is thereby conveyed to the tissues.

The Results of Loss of the Secretion in Animals.

A large amount of valuable information as to the properties and functions of this secretion has been obtained by observing what occurs when it is no longer present in the blood. This state of affairs is easily brought about by removal of the gland from an animal. Owing to the superficial position of the gland in the neck, this operation can easily be performed so as to entail no other secondary result than the loss of thyroid secretion forthwith, provided only that the parathyroid glands are not attached to the gland and removed with it, in which event the effects observed are the results of thyroidectomy *plus* parathyroidectomy. In man the results of failure of the normal supply of thyroid secretion from disease of the gland are seen in primary myxœdema, and from removal of the gland for goître in secondary myxœdema, or cachexia strumipriva, as it is also called.

My own observations of the results of thyroidectomy have been made on rabbits and monkeys. It has, however, been shown that although no effects have been observed in fishes; in lizards, and snakes, the operation is followed by loss of strength and activity, ending in death in the course of a few weeks.

In rabbits the different results obtained by various observers were difficult to explain, until it was shown by Gley[13] that removal of the parathyroid glands along with the thyroid gland produced different effects to removal of the thyroid alone. The double operation was followed by acute symptoms, the most important of which were muscular tremors commencing in the masseter muscles, clonic and often tetanic contractions of the voluntary muscles, paralysis of the extensors of the fore feet followed by that of the hind limbs, difficult and often rapid respiration, salivation, dilatation of the pupils, and rise of temperature. Removal of the thyroid gland alone was followed by no such immediate effects.

My own observations show that, although the immediate effects of thyroidectomy are very slight, after a long interval a chronic cachexia develops closely resembling myxœdema in man. Thus in two rabbits which were kept for a long time under observation after the thyroid gland had been removed, there was an early development of hebetude and loss of appetite. No further change was noticed until an interval of eleven months in one case and twelve in the other had elapsed after the operation. After this, in addition to the hebetude already mentioned, swelling of the subcutaneous tissues, dryness of the skin, loss of hair, and subnormal temperature developed, an entirely different condition to that described by Gley after removal of the parathyroids as well. These slides show you the appearance of one of these animals killed eleven months after the operation, and the ears of the other killed twenty-one months after. The ears were very dry, and rough, and cold to the touch, though they flushed readily when handled. The edges of the ears were dry and cracked to a depth of ¼ in. In many places this dried margin had broken off, leaving an irregular outline to the ear. In a third rabbit, which was kept for twenty-seven months after thyroidectomy, no symptoms appeared. When the animal was killed the reason of this was found to be that some of the glandular tissue had unintentionally been left at the time of the operation, and had undergone compensatory hypertrophy. The total amount of thyroid tissue found weighed only 0.07 gram, or about one-third the weight of a complete gland, but it had been sufficient to maintain an adequate supply of secretion for more than two years.

Dogs and cats both develop a rapidly fatal cachexia after thyroidectomy. More than forty years ago Schiff showed that dogs did not long survive the operation, and in 1884 he found that fifty-nine out of sixty dogs rapidly succumbed after total extirpation of the gland. In dogs the total duration of the symptoms induced by the operation may vary from a few days to five weeks, but rarely exceeds this period. Soon after the operation the animal becomes dull and listless, and loses its appetite. These symptoms are followed by fibrillary twitchings in the muscles and clonic convulsions of the trunk and limbs, during which the animal lies on its side with the head thrown back and the limbs extended. There is great dyspnœa during these attacks, and the animal is in a half-comatose condition which becomes complete before death. There is a general diminution of muscular power, and in many cases rapid emaciation. There is a slight rise of the temperature at first which becomes subnormal before death. The red corpuscles are diminished and the white increased in number. Very similar symptoms occur in cats. The observations of Vassale and Generali[14] on cats and dogs, of Edmunds[15] on dogs, and of Welsh[16] on cats show that if the parathyroid glands are excised without the thyroid gland very similar acute symptoms occur to those observed when the thyroid and parathyroid are removed together. These symptoms are tremors, slow and unstable gait, emaciation and weakness, all of which previously were regarded as being due to the loss of the thyroid alone.

The most important results of all have been obtained in monkeys, which have been employed by Munk, Horsley,[17] and myself. In the bonnet monkey (macacus sinicus), which I have used, with one exception, in all my experiments, a parathyroid gland lies in close connection with, or actually embedded in, each lobe of the thyroid gland, as is shown in Figs. 1 and 2. As a result of this, when the thyroid gland is removed the parathyroids are removed along with it. It would be difficult to remove the one without the other, for distinctly as the parathyroid can be seen in a transverse section, it is much more difficult to see it during life while the gland is

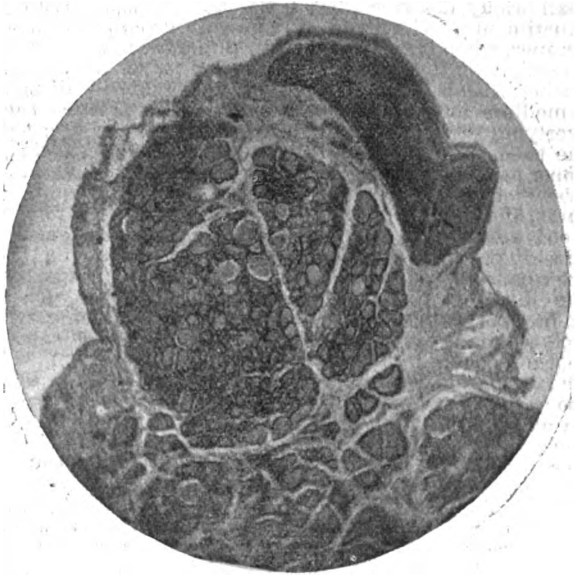

Fig. 1.—Transverse section of thyroid gland of bonnet monkey showing structure and close attachment of parathyroid gland.

in situ. In two recent experiments I was unable to detect, even with a lens, the parathyroids on either side and remove them without the thyroid gland; they were, however, easily seen in transverse sections of the lateral lobes after removal of the whole gland. It is, therefore, important to bear in mind that thyroidectomy in this monkey involves removal of the parathyroids as well, so that the symptoms which occur afterwards are not solely due to loss of thyroid secretion, but in part are due to loss of the parathyroids as well.

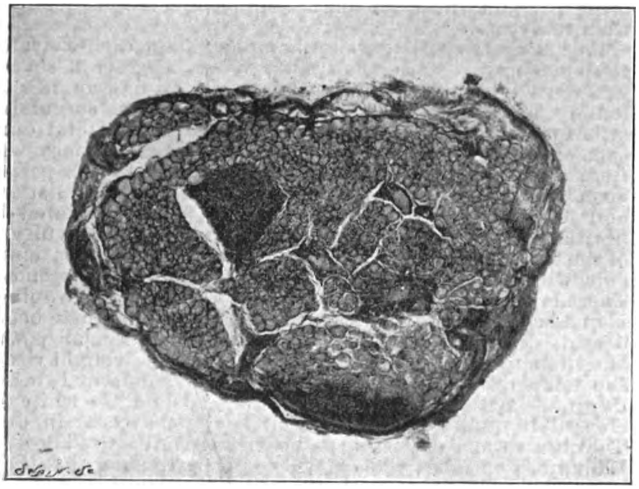

Fig. 2. Transverse section of thyroid and parathyroid glands of monkey showing one portion of parathyroid at lower edge of section, and another kite-shaped portion just to the left of the centre of the section. Low power.

I have removed the whole or a part of the thyroid gland in nine bonnet monkeys and one rhesus monkey, in four of the former the symptoms were allowed to develop with the object of testing the influences of various preparations of the thyroid gland upon them. Some symptoms also occurred in the others, but these four form the basis for the description of the symptoms which result from the operation. These symptoms have been very carefully described by Horsley, but they have such an important bearing upon the whole subject that I shall briefly describe what I was able to observe in my own experiments. The gland is readily removed in the following manner, when the animal is fully under the influence of ether. The skin of the front of the neck is shaved and carefully washed with a 1 in 1,000 solution of perchloride of mercury. A medium longitudinal incision is made through the skin overlying the thyroid and cricoid cartilages and upper part of the trachea. On separating the muscles and exposing the upper part of the trachea the isthmus comes into view. Each lobe is then gently separated from the surrounding structures, and while the gland is held by one pair of forceps the blood vessels are torn out of it at the point of entrance by another pair. The loss of blood is trifling, and no ligatures are required. The usual antiseptic methods are adopted, and the muscles united by a couple of sutures. The skin is brought together with horsehair sutures set very close. The wound is dressed with carbolic gauze or some antiseptic wool and collodion, and heals rapidly by first intention. After the operation the animals have been kept in a room, the temperature of which ranged between 60° and 70° F. In about five days the symptoms first begin to develop, the early symptoms being entirely nervous. One of the first to appear is a fine regular tremor, which is most easily seen in the upper limbs, but which is also plainly visible in the lower limbs as well when the animal is held with the feet unsupported. Along with the tremor there is a marked change in the whole demeanour, which is the more noticeable owing to the naturally lively disposition and active habits of the healthy monkey. There is progressive apathy, with loss of natural curiosity and interest in surrounding objects, while the temper is irritable, interference being resented. There is loss of activity, as the animal sits still in one place on a perch or on the floor of the cage for long periods without moving; and increasing loss of muscular power, as climbing is done more slowly, and evidently with greater effort, as the symptoms advance. The attitude assumed is characteristic, the head is bent, the trunk curved forward, and the knees drawn up, so that the chin rests upon them, the joints of all four limbs being in a position of flexion. This attitude is well shown in Fig. 3 taken from one of my animals. Contractures owing to tonic spasm of the flexor muscles frequently occur; in fact I believe this attitude is partly a result of these contractures, as the limbs are often found to be rigid when it is adopted. Clonic contractions of the muscles are common. There may be a single contraction of a group of flexor muscles, or a series of three or four may involve all the flexors of one arm, increasing in intensity until a position of extreme flexion at all the joints is reached, after which relaxation takes place until another series occurs. Irregular fibrillary contractions of the superficial muscles are often visible through the skin. In consequence of these symptoms the gait is stiff and unsteady, and when the contracture is excessive the animal is obliged to walk on the heels owing to the tonic spasm of the flexors of the ankle raising the toes and sole of the foot from the ground. There is a marked tendency to fall over backwards, so that if a banana is held over the animal's head, it loses its balance in looking upwards at it and falls over backwards, and a very slight push when the animal is sitting has a similar effect. True epileptic fits of greater or less intensity may occur. There may be a sudden loss of consciousness, so that if the monkey is on the perch at the time, it falls to the ground.

In one case I observed several epileptic fits in succession in which there was loss of consciousness, tonic spasm of the flexor muscles of the limbs with risus sardonicus, followed by clonic contractions and micturition. In one fit there was in addition double internal strabismus with retraction of the eyelids, and in another conjugate deviation to the left. Retraction of the head and salivation were also observed. I have seen a temporary inability to use the arms owing to spastic rigidity limiting the movement, but not actual paralysis as described by Horsley, who twice observed a complete temporary hemiplegia. The temperature at first is raised and irregular, but soon becomes subnormal. Thus in one experiment, the chart of which I now show you, the rectal temperature, which is usually 100° F. in the monkey, was only twice below normal during the first week following the operation, as it otherwise ranged between 100° and 102°. During the second week it only once rose to the normal level, being otherwise between 98° and 99.6°, while in the third week it varied between 97.6° and 100°, except on two evenings, when it rose to 101° and 102.4°. In one experiment I found the temperature as low as 80° F. four days before death.

During the second and third weeks the myxœdematous swelling becomes distinct, and as in man is most apparent in the face. Both upper and lower eyelids become swollen, and with this there is sometimes transverse wrinkling of the forehead. Both lips are also swollen by the elastic œdema. The appearance of the face is shown clearly in Figs. 3 and 4, which were taken from two different monkeys. The skin, more especially of the ears, becomes dry and rough, and the hair may be shed. Examination of the blood shows that the red corpuscles are diminished and the white increased in number. The average duration of life was found by Horsley to be twenty-four days, but he showed that when the temperature of the air in the cage was maintained at 90° F., the average duration of life was increased to one hundred and twenty-five days, while the symptoms ran a more chronic course, like those of cretinism in man. Without giving any further details of this interesting condition, its resemblance to primary myxœdema in man is remarkable. The course of the symptoms is much more acute than in man, partly because the supply of thyroid secretion is cut off suddenly by the operation, while in primary myxœdema the supply only gradually fails as the disease of the gland advances.

In both conditions we have the same progressive loss of mental and bodily activity, subnormal temperature, elastic subcutaneous œdema, dry skin, and loss of hair. In the monkey we have, however, acute nervous symptoms which do not occur in primary myxœdema, though some have been observed after thyroidectomy in man. I would suggest, however, from the results of removing the parathyroid glands in rabbits and other animals, that these symptoms are in part

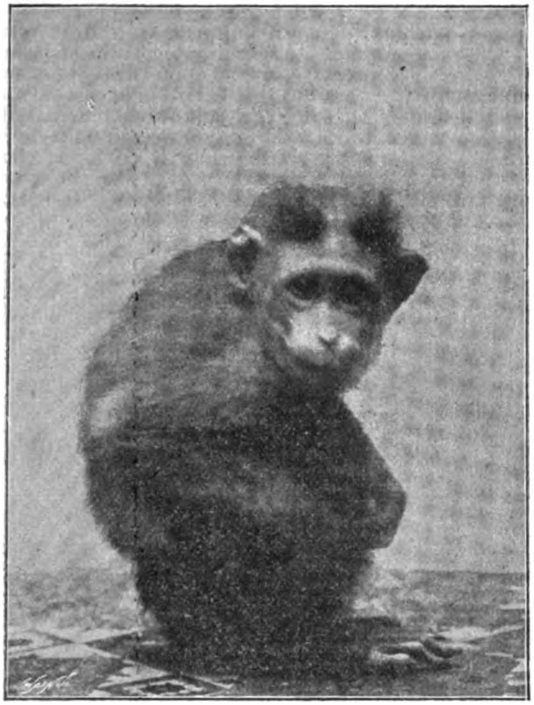

Fig. 3.—Monkey after thyroidectomy showing attitude and swelling of face.

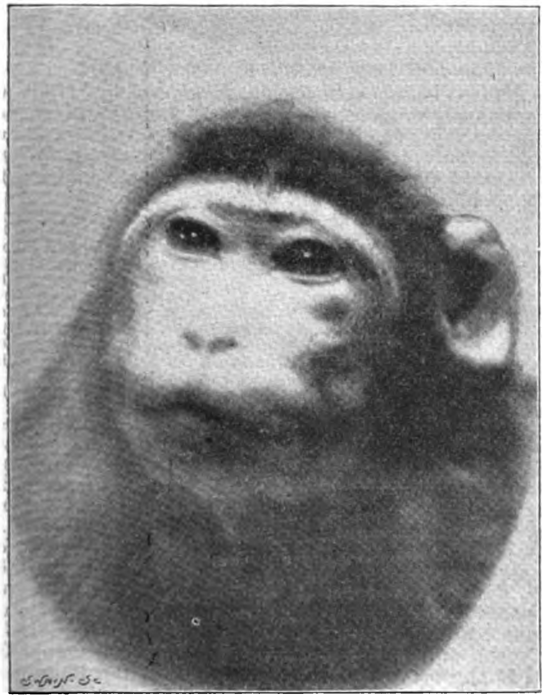

Fig. 4.—Monkey after thyroidectomy showing swelling of eyelids and lips.

due to the loss of the parathyroids, which, as we have seen, are removed along with the thyroid. This view receives further support from the fact, which will be considered later, that these acute nervous symptoms are not readily controlled by treatment with thyroid extract as might be expected were they purely thyroidal in origin. The close anatomical association of the parathyroid with the thyroid renders the removal of the former without the latter or *vice versâ* very difficult in this animal. Under these circumstances we can remove both together, and afterwards give thyroid extract to prevent the onset of symptoms from loss of thyroid secretion. The symptoms which then occur, as I hope to show in my next lecture, are nervous in origin, and due, I believe, to the loss of the parathyroid.

Opportunities for observing the effects of total thyroidectomy in man have occurred in cases in which that operation has been performed for goître. It is well known that in a certain number of these cases, as a result of the loss of thyroidal secretion, symptoms develop which are identical with those of primary myxœdema. Indeed, it was the striking similarity between the two, noticed by Sir F. Semon, which led to the appointment of the committee by the Clinical Society, whose report proved the identity of the two conditions and their dependence upon loss of function of the thyroid gland.

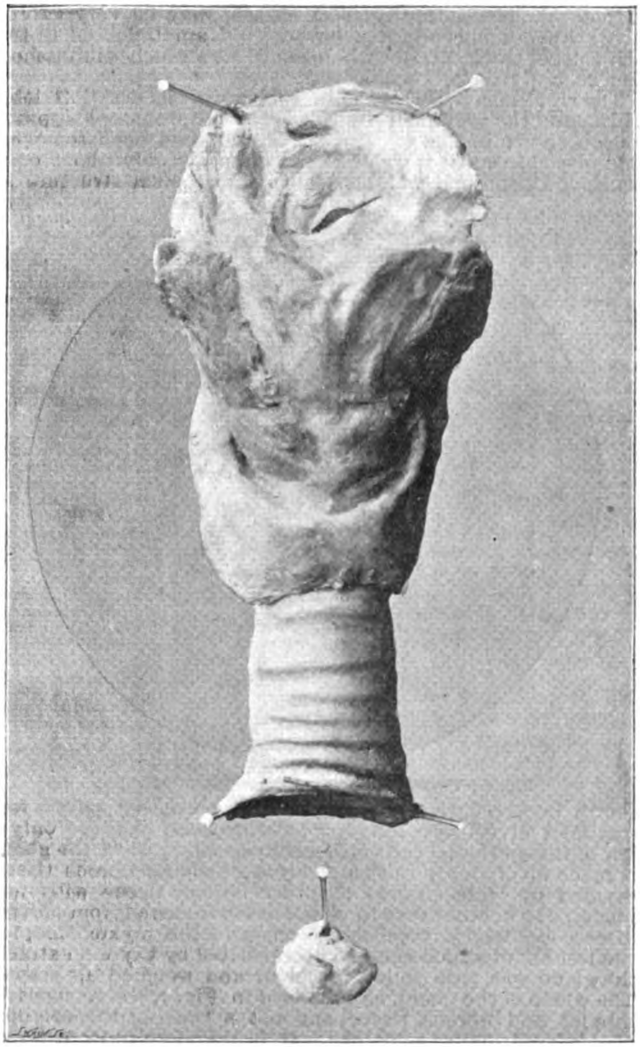

Fig. 5.—Thyroid gland and hypophysis from a case of myxœdema.

THE CHANGES IN THE GLAND IN PRIMARY MYXŒDEMA.

In man only three of the diseases which occur in the thyroid gland appear to be capable of causing a sufficiently destructive lesion of the secreting cells to materially diminish the amount of secretion. Syphilis and actinomycosis of the gland have thus caused myxœdema. If these diseases are successfully treated the gland recovers, sufficient secretion is once more formed, and the myxœdema disappears. The great majority of cases of primary myxœdema are due to a fibrosis of the gland with atrophy of the secreting epithelium. Unfortunately we know very little as yet of the cause or mode of origin of thyroidal fibrosis.

It may, according to the older views, be regarded as a chronic inflammation, a chronic interstitial thyroiditis as a result of which new fibrous tissue is formed, which by its slow contraction and constriction of the blood vessels and alveoli leads to the destruction of the epithelial cells. On the other hand, it seems more probable that the atrophy of the glandular tissue takes place primarily as the result of the action of some toxic agent, and that the fibrosis is only a replacement fibrosis, such as occurs in the spinal cord and elsewhere after more highly organised structures have been destroyed. This problem, which is one with that of the origin of fibrosis of other glandular organs, such as the liver and kidney, does not concern us further here; for however it originates, the result of the disease is a slowly progressing destruction of the gland with gradual diminution and final arrest of secretion. The structural changes in thyroidal fibrosis may be very extensive: thus, in one specimen for which I am indebted to Dr. Callcott, of Gosforth, the whole gland was much diminished in size, and pale yellow in colour.

The right lobe measured 1¼ in. in length and the left lobe 1¼ in., and the isthmus 1¼ in. in width. The general appearance is shown in Fig. 5. The day after it had been removed and placed in spirit it weighed 3.52 grams, or only about one-tenth of the normal weight. The microscopical structure is shown in Fig. 6, from which it will be seen that only a few scattered alveoli are left, and even in some of these only a few of the epithelial cells still survive. The rest of the gland is made up of richly nucleated areas of young fibrous tissue divided by wide strands of older fibrous tissue with few nuclei. In another case in which death occurred from mitral disease eighteen years after the onset of the myxœdema, for the last six of which she had been treated by thyroid extract, the gland was pale yellow in colour and weighed 4.5 grams. The whole of the gland, as is shown in Fig. 7, was converted into fat and fibrous tissue, and not a trace of the original glandular structure remained. It is therefore quite evident that very little, if any, secretion could be formed by the gland shown in Fig. 6, and certainly none at all in Fig. 7, in which for long there must have been complete arrest of thyroidal secretion.

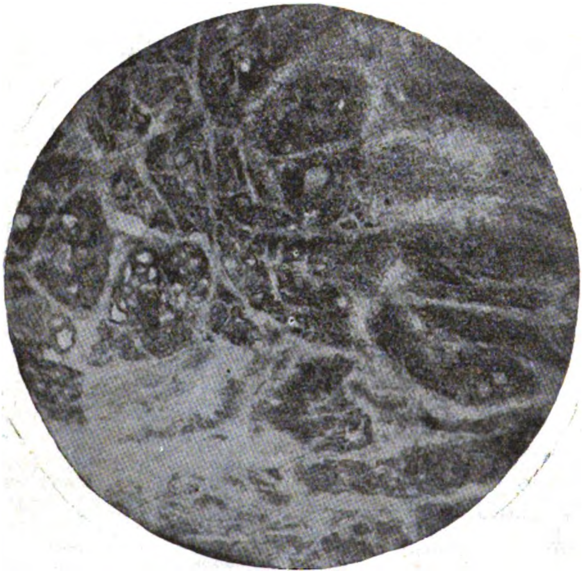
Fig. 6.—Thyroidal fibrosis with advanced atrophy.

The symptoms of myxœdema which occur in man as a result of this destructive disease of the gland were so ably described by Dr. Ord in his Bradshaw Lecture last year that they are familiar to all. I should, however, like again to draw attention to the fact that there are many cases of early thyroidal fibrosis in which the symptoms are not nearly so definite as in the advanced cases. I have endeavoured in a recent paper[18] to show what are the chief characteristics of these cases—such as slight subcutaneous swelling and dryness of the skin, normal temperature, certain striking subjective nervous symptoms, etc. The opportunity of examining the condition of the gland at this early stage can only arise if death should occur from some accident or intercurrent disease. In the absence of definite information we can only conjecture that a much earlier stage of fibrosis will be found, for it is evident that in any given case the severity of the symptoms will vary directly with the amount of atrophy of the glandular structure.

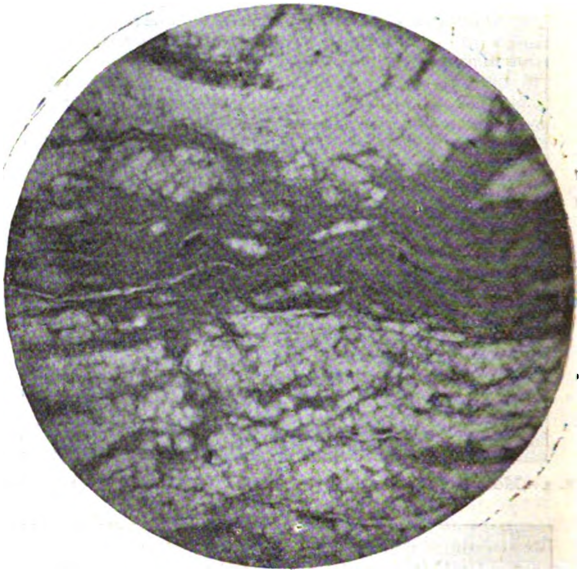
Fig. 7.—Thyroidal fibrosis with complete atrophy.

The gradual changes in the appearance of a patient suffering from slowly progressing fibrosis of the thyroid gland will be illustrated by some photographs which will be shown at the next lecture, in which I shall deal with results of disease of the thyroid gland in the young and the rational treatment of myxœdema and cretinism.

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THE GERMAN RED CROSS MEDAL.—A new decoration (the Red Cross Medal) has been created by the German Emperor, at the suggestion of the Empress. The medal, in three classes, will be given to persons belonging to the Red Cross Association who distinguish themselves particularly by their zeal. The medals of the second and third classes will be silver and bronze respectively, bearing on the one face the Red Cross with the letters W. R. (William Rex) on top, and at bottom the letters A. V. (Augusta Victoria). On the other face is the inscription "Für verdienste um das Rothe Kreuz" (for services rendered to the Red Cross), surrounded by a wreath of oak leaves. On the medal of the second class, the cross is of red enamel. The insignia of the first class consists of a cross in red enamel with a silver edge, and gold crowns up the four extremities. The medals of the second and third classes are suspended from a red, black, and white ribbon, while the cross of the first class is worn on the left breast as an order. It is intended to confer this decoration (Die Rothe Kreuz-Medaille), not only on men, but also women and girls who have successfully worked for some years in the interests of the Red Cross, or who have distinguished themselves by remarkable personal acts of devotion in any rank of life.

THE LETTSOMIAN LECTURES
ON
SOME CLINICAL ASPECTS OF GRANULAR KIDNEY.

Delivered before the Medical Society of London.

BY SAMUEL WEST, M.D., F.R.C.P.,
Assistant Physician, St. Bartholomew's Hospital; Senior Physician, Royal Free Hospital, etc.

LECTURE III.

SYMPTOMS.

GRANULAR kidney may exist for a long time without appearing to affect the health or producing symptoms. When symptoms appear, no matter what their nature, the disease is far advanced and in its later stages. The symptoms are multifarious, and, unless there be intercurrent nephritis, in no way of themselves suggest renal disease. They fall into two groups—the cardio-vascular and toxæmic. Speaking generally, the cardio-vascular symptoms occur first, and the toxæmic subsequently, though both may be present together.

The cardio-vascular are important, because they often cause death earlier than might otherwise occur. The toxæmic always develop if the patient live long enough. They depend upon the wasting of the kidney, become manifest when it has reached a certain degree, and progress *pari passu* with it.

The cardio-vascular symptoms are more or less mechanical or accidental. The cardiac are summed up in heart failure. The vascular fall into two groups: the first is formed by hæmorrhage and its results; the second by chronic degenerative affections, especially in the nervous system, the result of imperfect nutrition through the diseased vessel.

A.—CARDIO-VASCULAR.

1. *Cardiac.*—Heart failure is often the first symptom to cause anxiety. Thus a little shortness of breath and palpitation on exertion, with, it may be, slight cardiac pain or some swelling of the feet, may direct attention to the heart, which is found hypertrophied or dilated, and that without obvious cause in the heart itself. The symptoms are usually gradual in onset, but may come on suddenly. The pain, though usually slight, may be severe enough to be called angina. In elderly persons these symptoms might be the result of atheroma, but in middle life and in the young granular kidney is the most likely cause. Cardiac symptoms are, however, not constant, even where the heart is greatly hypertrophied or the valves diseased.

I had a young man under my observation for some years with aortic regurgitation, who developed granular kidney, and subsequently died of uræmia, yet his heart gave him no trouble throughout.

Acute pericarditis belongs rather to the toxæmic group, but this is perhaps the most convenient place to refer to it. It is always a very serious complication, and even where it does not of itself cause death it is a warning that the end is near. It may produce few symptoms, and be detected only by physical signs, but the evidence of granular kidney is usually obvious enough. It may be the first sign of ill-health, as in a case I have recorded elsewhere.

2. *Vascular.*—The vascular lesions produce three sets of symptoms.

1. Those due to rupture and consequent hæmorrhage.
2. Those which result from nutritive disturbances in the parts supplied by the diseased vessels. This is especially met with in the central nervous system and in the eye.
3. Besides these, it is necessary to refer to aneurysm, and that not only of the small vessels, but of the main trunks.

I believe the connection of granular kidney with aneurysm of large vessels is a new point, but it is clearly shown in the *post-mortem* statistics from St. Bartholomew's Hospital (Woodbridge), for out of 219 cases of granular kidney the rupture of a thoracic aneurysm was the cause of death in 33, that is, in 6 per cent. There were, besides these, two cases of death from the rupture of small aneurysms at the base of the brain. To the possible causes of aneurysm, namely, laborious work, drink, and syphilis, must now be added granular kidney.

HÆMORRHAGE.

Hæmorrhage may take place in almost any part of the body, but it is in the brain that its most serious effects are produced, and *post-mortem* statistics prove the remarkable frequency with which granular kidney is found associated with cerebral hæmorrhage.

Dickinson states that 41 per cent. of all cases of cerebral hæmorrhage were due to granular kidney, and Pye-Smith states that in 75 per cent. of the cases of granular kidney death is brought about by cerebral hæmorrhage. The St. Bartholomew's Hospital statistics only show about 15 per cent.

In elderly persons, of course, due allowance must be made for atheroma, but even elderly persons may have granular kidney and a little atheroma, while in middle life granular kidney is the usual cause, and in the young may explain cases of cerebral hæmorrhage which would otherwise present great difficulty.

Thus in Woodbridge's cases there was 1 at 19, 1 at 27, and 1 at 30, and 2 at 37.

Of course, many patients with cerebral hæmorrhage do not die of it, but are left with paralysis, of which the following is an instance.

A young man, aged 21, recently presented himself with left hemiplegia. The attack had come on suddenly in the midst of apparent health, and was evidently due to hæmorrhage. No cause was apparent until the thickened radial and high arterial tension suggested granular kidney, and albumen was found in the urine.

Where the patient dies of apoplexy *post-mortem* examination may show the centre of the brain ploughed up by a large hæmorrhage of the common kind; but sometimes, without any extensive laceration of the brain, a large number of minute hæmorrhages are found of that peculiar kind known as miliary aneurysms.

Where the small hæmorrhages are not numerous they may produce no pressure signs, but only localised symptoms of varying character according to their position. They probably explain the unilateral fits occasionally observed in uræmia. Even when death follows general uræmic fits of the ordinary kind multiple minute hæmorrhages are not infrequently found, so that the distinction between the hæmorrhagic and the toxic form of uræmia is not always possible. In the medulla a very small hæmorrhage of this kind may lead to death or to localised nuclear paralyses of special nerves. Pontine hæmorrhage is, of course, rare, but in many instances granular kidney is the cause of it.

Of hæmorrhage into the spinal cord below the medulla I have met with no example myself, and I do not know any recorded.

Epistaxis is common, and may be the first symptom of disease, and its importance be missed. Even in the young granular kidney must not be disregarded as a cause of repeated epistaxis.

Hæmaturia.—The next most important group of cases is that in which blood is found in the urine. Attention had not been drawn, so far as I know, to granular kidney as a cause of hæmaturia until I published some cases a few years ago, but the fact is now generally recognised. The blood is intimately mixed with the urine and is bright in colour, and for this reason I am inclined to believe that it usually has its origin in the bladder; at any rate, except when granular kidney is associated with intercurrent acute nephritis, and but rarely then, is the urine smoky or dark in colour. In a case recently reported to me the cystoscope showed blood passing by the ureters. It may be so red and bright as to look almost like pure blood, but even then there are hardly ever any clots. This form of hæmaturia has led to frequent mistakes, as, for example, to the diagnosis of calculus in the bladder, for which operation has been suggested and performed. The hæmorrhage is not often copious, but in slight amount it is common and recurrent. To this recurrent hæmaturia experience leads me to attach considerable diagnostic value.

Of hæmorrhage from other parts in connection with granular kidney I have myself recorded one case of hæmatemesis. I know of one of hæmorrhage from the bowels. Hæmoptysis is described, but I have never myself actually met with it; and similar hæmorrhage, though not in large amount, is described from the pharynx.

I have recently had to deal with a case in which very troublesome and persistent hæmorrhage occurred from the uterus. It was ultimately checked by full doses of ergot.

In the last stages of granular kidney the patient may pass into an almost hæmophilic condition, in which slight though continuous and almost uncontrollable oozing takes place from various parts of the body—from the gums, nose, tongue, lips, vagina, or from any wound or scratch in the skin. A considerable amount of blood may be thus lost, and the anæmia from which the patient is already suffering be very greatly aggravated.

DEGENERATIONS.

The next group of cases to which I wish to refer is that in which, as a consequence of arterial disease, degenerative changes result in various tissues. The most delicate of these is the nervous system; to this Gull and Sutton long ago drew attention. The subject has not since they wrote received the attention it deserves. Bond has drawn attention to the remarkable frequency of granular kidney in *post-mortem* examinations of the insane in an asylum, and has shown that it is nearly double that in a general hospital like St. Bartholomew's; and he rightly concludes that there must be a close relation between the two diseases. Although some of the diseases of the nervous system associated with granular kidney may rightly be attributed to defective nutrition in consequence of the disease of the vessels, it must not be forgotten that they may also be toxic in origin.

B.—TOXÆMIC.

The toxæmic symptoms fall into two groups; in the one they are of acute onset and great severity, and usually lead rapidly to death; in the other they are of more gradual onset and of longer duration and of less apparent severity, and of a very indefinite character. They are respectively called acute and chronic uræmia, but as the groups stand in strong contrast with one another, it would be well if different terms were employed to denote them. For the acute cases uræmia in its ordinary acceptation might be retained. For the chronic group, on account of its varied and indefinite symptoms, chronic renal toxæmia would be the better term.

There are three main theories of uræmia, which may be termed the "retention" theory, the "perverted metabolism" theory, and the defective "internal secretion" theory.

The general cachexia which develops in some forms of granular kidney bears a striking and suggestive resemblance to the condition which is met with in Addison's disease or even in myxœdema, but there is no other proof so far of an internal secretion in the kidney.

The retention theory, which implies that the symptoms are produced by the retention of some of the ordinary constituents of the urine in the body, such as urea, creatin, creatinin, etc., is now discredited; so that the third theory only remains—namely, that which refers the symptoms only to perverted metabolism. According to this theory, the products of metabolism—that is, extractives, as they are usually called—are either produced in abnormal amount, or not properly elaborated, so as to be eliminated in the normal way. In either case they would be increased in the tissues, and this increase can be demonstrated. The symptoms of uræmia might thus be referred to "extractive" poisoning, or as it is sometimes called auto-intoxication.

There are many different extractives, and they have different physiological action, and thus the symptoms produced might vary according as one or other of this extractive predominated.

Clinically we know that the symptoms of uræmia are closely simulated by many conditions which at first sight appear to have nothing to do with one another; thus, the typhoid state which develops in many fevers is like some forms of uræmia, and Murchison did not hesitate to call it uræmic. Again, when the tissues are rapidly wasting—as in malignant disease—symptoms arise towards the end which, if they happened in a case of renal disease, would be called uræmic. So, again, in the later stages of cirrhosis hepatis, diabetes mellitus, the last stage of Addison's disease or myxœdema, and, indeed, in almost all slowly-dying persons. We might thus place them all under the one heading of toxæmia, and it is for this reason that I prefer to call uræmia "acute and chronic renal toxæmia," so as to bring it into its proper relation with other allied clinical conditions.

In the case of uræmia there are two ways in which the toxæmia may arise: either the metabolism may be normal and elimination defective or the metabolism may be increased or perverted, while the elimination is not deficient but may be much increased. In uræmia the tissues are enormously rich in extractives, even when elimination by the kidney is active, and when elimination by the kidney is impaired they are still further increased.

If, then, we are thus led to associate the symptoms of chronic uræmia with chronic extractive poisoning—that is, with the presence of abnormal amounts of extractives in the tissues and the blood—we are tempted to refer the acute symptoms, which often develop with so little warning, to defective elimination by the kidney, and we might thus associate acute uræmia with the condition of the cells in the kidney, in granular kidney, just as we do in acute nephritis. It is to the chronic toxæmic group that most of the symptoms belong which bring the patient under medical observation.

The gastro-intestinal symptoms are often pronounced, and may be very misleading. Obstinate dyspepsia, especially if associated with pain, might suggest ulcer of the stomach, and this might be attributed, if there were much cachexia, to malignant disease, a suspicion which would be strengthened if hæmatemesis also occurred. As a matter of fact, hæmatemesis is rare, for the hæmorrhage is not likely to be profuse, and, unless it were profuse, the blood would not be vomited. Vomiting is often a source of difficulty, for it is very obstinate, and does not stand in relation to the taking of food.

In a man, aged 32, the diagnosis of pyloric stricture had been made and operation was proposed; the case proved to be one of granular kidney. In another instance, that of a man, aged 63, malignant disease had been suggested, but the diagnosis of granular kidney was confirmed by necropsy.

When to the vomiting retinitis is added, confusion with cerebral tumour is only to be expected. Morning vomiting, which is not rare, might suggest pregnancy, and I have seen cases confused with both these conditions. The symptoms in connection with the bowels are not, as a rule, so puzzling. Diarrhœa is common with any form of kidney disease, but there are cases in which diarrhœa is practically the only symptom, extremely obstinate, and almost uncontrollable. The dyspeptic symptoms are often associated with cramps. I have seen several cases in which cramps were the chief complaint.

Cramp leads naturally to the consideration of gout. The occurrence of chronic kidney mischief as the result of long-standing gout is well recognised, but it is quite possible that the opposite relation exists in many cases—that is, the patients are gouty because they have granular kidney.

The close association of chronic lead poisoning and granular kidney is interesting as supporting the view that granular kidney is the result of the circulation of some toxic substance in the blood, which like lead excites cirrhosis in the kidney with all its results, just as alcohol produces cirrhosis in the liver. On the other hand, it is also possible, considering that all persons who work with lead do not develop granular kidney, that the opposite relation may exist—namely, that they suffer so much from lead symptoms, just as others do from gout, because their kidneys are granular already.

Cachexia.—Patients with granular kidney may for a long time preserve their normal appearance of health, and that even when the signs of granular kidney are well marked; but, as a rule, as the kidney disease advances the nutrition suffers greatly. Failure of health and strength in persons of middle life, without any evidence of malignant disease, should always excite the suspicion of granular kidney. The cachexia stands in direct relation to the kidney wasting, and when it is extreme is an indication that the destruction of the kidney substance has approached dangerously near to the limits compatible with life. The cachexia of granular kidney is characterised by anæmia and asthenia, and to some extent by loss of flesh, but emaciation is rarely carried to that degree which is met with in advanced malignant disease. It is often out of all proportions to the other symptoms, or may even exist alone. In some cases the anæmia predominates, and in others the asthenia. I do not know that the blood has been systematically examined in these cases, but in the few which I have examined the changes have been those of simple though extreme anæmia. The asthenia is often extreme, so that the patient can hardly stand or walk without assistance. Of this extreme asthenia I have seen two striking instances recently. One of these was under treatment for a skin affection, and will be referred to in another place. In this case, with rest and feeding the asthenia greatly improved. In the other case the asthenia was extreme and fatal. This case is so remarkable as to deserve record.

The patient, a woman aged 41, came under observation twelve months previously for general pityriasis. She had some albumen in the urine, and was so extremely feeble that I did not expect her to live. However, after a few days' stay in the hospital she insisted on going home, as I thought, to die. However, she lived on, and in the course of time lost the skin eruption. About ten months later she appeared again, more anæmic and ill than before. She was again admitted into the hospital, where she died two or three days later. I never saw a patient so feeble and cachetic with so little to show for it; she was like a patient dying in the last stage of malignant disease or of Addison's disease. I examined her with the greatest possible care to discover any other cause than granular kidney, but failed to find one. Even the diagnosis of granular kidney at that stage was difficult, for the tension was extremely low, and the artery but slightly thickened. There was a small amount of albumen in the urine, but not more than might have been due to her feeble condition, and the eyes showed nothing. When the *post-mortem* examination was made all the organs were carefully examined, and absolutely nothing found except granular kidney. The kidneys weighed only 4 ozs. together. The only history I could obtain was that the patient had been ailing in an indefinite way for about six years, but had been in fair health until the skin eruption appeared, three weeks before she was first seen. From the time when the skin eruption disappeared there had been no other symptoms except those of extreme anæmia and asthenia. The cachexia was so extreme that many thought that granular kidney was hardly sufficient to explain it, and that there must be some malignant disease which had escaped detection.

Nervous Symptoms.

It is in connection with the nervous system that some of the most interesting conditions arise.

Headache which is so common a symptom, often occurs in such severe paroxysm as to closely resemble migraine. It is usually vertical, but may be frontal or occipital. When unilateral or localised as it may be, it is often diagnosed as neuralgia or tic douloureux. The vomiting is no doubt often central or nervous, for it stands in no relation with food, and is frequently periodical.

Renal Asthma.—The dyspnœa, which may be paroxysmal, is very often cardiac, and usually due to bronchitis and emphysema. The respirations in uræmic states vary much; thus they may be very slow—I have seen them as low as 10 in the minute—but they are deep, and there is no dyspnœa; or they may be rapid, noisy, and panting, not unlike that sometimes seen in diabetes. In this form, again, there is no dyspnœa. Cheyne-Stokes breathing is usually of cardiac origin. Where there is dyspnœa it is often cardiac, and, if not, is frequently due to emphysema and its attendant bronchitis, or the bronchitis itself may be of toxic origin. Any attack of the nature of true spasmodic asthma is very rare, and I must confess myself very sceptical as to its existence. I have certainly never met with it.

Peripheral neuritis is a rare condition in granular kidney. I have recorded a well marked case.

Epileptiform Convulsions.—Fits are, of course, the common form in which acute uræmia manifests itself, but epileptiform convulsions are not rare as one of the early symptoms of the late stage independent of uræmia. The fits occur in groups, two or three a day possibly, and last for a day or two; they may then disappear, and not recur for weeks or months, when a second bout of fits occurs with as little manifest cause as before, and so on. Before long grave symptoms of the usual kind develop, and the case passes into its final stage. In connection with fits may be mentioned the curious attacks of cerebral irritation, which are not at all uncommon. They may take the form of attacks of general nervous irritability, of emotional excitement, or of almost maniacal delirium. They may last a few days only, or be prolonged for some weeks, and in this condition patients have been certified as lunatics. These attacks, like the fits, are at first separated by long intervals, but gradually become more and more frequent, and finally end in a condition of chronic mental perturbation of either the excited or melancholic type.

Skin Affections in Renal Disease.

This subject has been but little written upon, and yet it is not without its clinical importance. The cases fall into two groups according as there is general œdema or not.

Where the subcutaneous tissue is distended with œdema the nutrition of the skin will naturally suffer, and from very slight local causes rashes are likely to be produced. Where there is no œdema the rashes are probably of a toxic origin.

1. *Rashes associated with Œdema.*—These are for the most part erythematous in nature, transitory in duration, produce but few symptoms, and when localised have but little clinical importance. If widespread the prognosis is less favourable, and becomes the more unfavourable the more general the eruption is. Patches of erythema are often found on the inside and front of the thighs, and on various parts of the trunk, especially the lower part of the abdomen. As a rule they last but a few days, and then do not itch or burn or produce any discomfort. Sometimes the rash is of a papular lichenous character, and is then generally met with on the backs of the thighs and arms.

Eczematous eruptions are not at all uncommon if there be much œdema where the parts lie in contact with each other. If the skin is leaking, as after puncture or when blebs have formed and burst, various forms of rash occur; they are often eczematous, and produced by the irritation of the discharge, or erythematous, and spread in a way which closely resembles erysipelas or other infective eruptions, and are no doubt of septic origin.

As in diabetes so in dropsy—the tissues lose their resistance to pathogenic organisms, so that if infection occurs it will produce very grave effects. This used to be so far recognised that puncture or drainage of œdematous limbs was regarded as a very dangerous proceeding from the liability to phlegmonous inflammation, or even gangrene. Under the use of strict antiseptic precautions the danger has almost entirely disappeared.

2. *Rashes without Œdema.*—These occur almost exclusively in granular kidney. Generally widespread, or even universal, they are of great obstinacy and of grave significance. Localised eruptions similar to those already described occur also in granular kidney, but these are not of much importance. The general rashes vary in character. They may be described as: (1) Erythema; (2) pityriasis rubra; (3) dermatitis exfoliativa; (4) general eczema; (5) a discrete, papular eruption, sometimes lichenous, sometimes resembling chronic urticaria. I have myself met with instances of each.

In the few cases in which I have seen the initial stage, the rash has commenced as a localised, patchy erythema on the lower part of the abdomen, or on the inner and front parts of the thighs.

It is strange, considering the frequency with which hæmorrhage occurs in connection with granular kidney, that hæmorrhagic eruptions are so rare. I do not remember ever to have seen a case resembling purpura, nor, as a rule, have the skin eruptions a specially hæmorrhagic character.

These rashes, of whatever kind they are, occur only late in the disease and when the symptoms are well marked, so that the diagnosis of granular kidney is usually obvious, and this is perhaps the reason why they have been so long overlooked, or at any rate not described. In some cases, where the diagnosis of granular kidney is not so obvious, the patients come under treatment for the skin affection, and the essential disease is frequently overlooked, or if albuminuria is discovered it is regarded as the consequence of the affection of the skin, and its significance missed.

The association of a generalised skin eruption with albuminuria is of great importance, and justifies a more cautious prognosis than might otherwise be given. Evidence of granular kidney is often found if looked for, and then I believe the prognosis is very grave, and the end is not far off.

Acute Renal Toxæmia: Acute Uræmia.

The symptoms of acute uræmia have by no means that definite and uniform character which seems to be often assumed. The cases really vary very much from one another, almost as much as do cases of so-called diabetic coma. Fits and coma are the two most characteristic symptoms, and yet patients may not have fits, or at any rate no marked convulsions, and they need not be comatose. A patient may be comatose without any fits, or at most with but very slight twitching, and the condition may then closely resemble apoplexy. Patients in such a state nearly always die, but I have recorded a case of recovery in a man, aged 43, who is still living 12 months after the attack.

In some cases the condition almost resembles that of narcotic poisoning. In others, again, symptoms of the most profound collapse develop. The patient seems to have been suddenly poisoned, and presents symptoms very much like those met with in acute ptomaine poisoning.

Whatever the form acute uræmia may take the prognosis is as grave as it can be. If any one of the forms has a less grave significance than the others, it is perhaps that in which there are epileptiform convulsions, for uræmic fits in granular kidney may end in recovery now and then, as they much more frequently do in acute nephritis.

Frequently signs of cerebral irritation develop, the patient becomes extremely restless, sleepless, and more or less delirious, and sometimes passes into a condition of noisy, active delirium, not unlike delirium tremens, with which I have seen the condition confused. At other times the patient becomes violently maniacal, and is for the time a raging lunatic. If the patient does not die during this stage the attack may subside, and in a day or two pass off. But even then, the general condition rapidly deteriorates, and other symptoms develop, which before long end in death.

The most interesting fact about uræmia in the course of granular kidney is that it may develop so suddenly, and with little or no warning, in the midst of apparent health, and carry the patient off. Granular kidney is not generally recognised as a cause of sudden death, and I may refer again to the interesting statistics of Dr. Horder on the subject, which I quoted in my first lecture.

What with uræmia and other acute symptoms to which I have referred, I think we may say of advanced granular kidney, as we can of diabetes, that the patient's life is hardly worth a week's purchase, so sudden may be the onset of acute symptoms, which may rapidly end in death. Yet, on the other hand, we know that though death may be sudden, yet in the absence of acute uræmia or serious hæmorrhage life may last for many years.

TREATMENT.

If we knew the causes of the disease we might take steps to prevent it; but not only are the causes unknown, but the disease is not even recognised in most cases until it is already far advanced. Little or nothing definite, therefore, can be done at present in the way of prophylaxis or prevention. But as it is in the early stages that we are likely to be able to do most good, the importance of an early diagnosis is obvious. Nor when the disease is far advanced can it be cured, for scar tissue cannot be removed from the kidney by therapeutic means any more than from the skin or from the liver.

But because we do not know at present how to prevent the disease developing and cannot restore the diseased organs to their normal condition, it does not follow that treatment is of no avail. If we cannot treat the disease we can at any rate treat the patient; if we cannot cure the lesion we can at any rate attack the symptoms. If we can relieve the patient of the symptoms which trouble him, he will care but little for the morbid lesion; if we can cure his dis-ease, that is, discomfort, he will not much mind the disease.

We cannot cure myxœdema but we now know how to relieve its symptoms. We may hope for similar success hereafter in the treatment of granular kidney.

The objects we should have in view in treatment are:

1. To prevent the disease getting worse if possible, and to relieve the damaged organ in every way possible. With this in view exposure must be avoided as well as fatigue of either mind or body; the general health should be kept at its highest level; the diet should be appropriate, and, where feasible, the winter should be spent in a warm, dry, and genial climate.

2. To guard against the accidents specially likely to occur. These are failure of the heart and rupture of vessels. With this object violent exertion must be avoided, as well as all excessive mental work and anxiety; the patient should lead an easy life, both physical and mental; and, where unavoidable illness arises, such as a severe accident or acute pneumonia, if the weak spots be remembered much may be done to diminish the risks.

3 To counteract or relieve symptoms as they arise. I have already drawn attention to the extreme variability of these symptoms, and the treatment must therefore be correspondingly various also; but it is often surprising when the cause upon which these symptoms depend has been recognised, that is to say, when granular kidney has been diagnosed, how much may be done to give relief.

Of drugs, I do not know of any more useful than nitrate of pilocarpin given in small doses two or three times a day by the mouth, or in urgent cases *sub cutem*. Thus the headache, irritability by day and restlessness by night, vomiting and digestive disturbance, a foul tongue and a dry skin, may all rapidly yield to a dose or two of pilocarpin, and the patient be restored to comfort, or even threatening symptoms of uræmia be removed. There is one noteworthy fact about pilocarpin in chronic renal disease—namely, that it often does not produce the sweating which under normal circumstances and in similar doses it causes, and yet without the sweating its effect is striking.

There is one line of treatment to which I wish more particularly to refer, for it has not so far been investigated as fully as it deserves, and that is the treatment of chronic renal disease by means of renal extracts.

I have already said that there is no positive evidence at present of the existence of an internal secretion in the kidney; yet the cachexia which develops in chronic renal disease is not at all unlike that which is met with in Addison's disease or even myxœdema. Granular kidney also presents other resemblances with these diseases, in that the grave symptoms do not arise until the organ is very considerably diseased; in fact, as Bradford has shown, it is not until about three-fourths of the total kidney substance has been destroyed that life becomes impossible.

There was the same absence of conclusive evidence in the case of the thyroid gland until the administration of thyroid extract proved by its clinical effects that the symptoms depended upon the wasting of the gland. There can be no doubt clinically that the late symptoms of granular kidney do depend upon the disappearance of the glands, and it is therefore not at all improbable that the kidney has an internal secretion, though absolute proof is not yet forthcoming.

Renal extracts have not been used except in quite the latest stages of granular kidney at a time when probably the disease is too far advanced to be amenable to treatment at all. The subject is, of course, surrounded with difficulties; and yet, if we are to do any good at all by this or any other method, we must attack the disease before it has reached its later stages, and before the nutrition and general cachexia is so pronounced. The renal preparations I have been using are tabloids made by Burroughs and Wellcome.

The first question is whether the administration of renal extracts by the mouth has any effect at all. I have already said that if nitrate of pilocarpin be given by the mouth or *sub cutem* to patients with granular kidney, the dose which under ordinary circumstances would produce free sweating often fails to produce this effect. The following experience is one which I have had on several occasions:

A patient with granular kidney who had been taking nitrate of pilocarpin regularly was given renal tabloids two or three times a day. The dose of pilocarpin had hitherto caused no sweating; but within twenty-four hours or so after taking the renal tabloids sweating became marked, and followed each dose to such an extent that on some occasions it had to be stopped. As soon as this was done the sweating ceased. After a short interval the pilocarpin was repeated and the sweating returned. The pilocarpin was then continued and the renal tabloids stopped and the sweating again ceased. The administration of renal tabloids, therefore, did in these cases modify nutrition in some way so as to permit the nitrate of pilocarpin to have its normal action.

The most striking instance of the effect of the renal tabloids occurred in the following case:

A girl, aged 13, was under treatment for what appeared to be acute nephritis. After some weeks' illness she began to develop uræmic symptoms; the amount of albumen increased considerably; the amount of urea fell to 0.8 per cent.; there was a good deal of vomiting and abdominal pain, some diarrhœa, and also some bronchitis. A little later headache set in, vomiting became more troublesome, and she began to have fits. Under treatment the fits subsided, and in the course of a week or so she was in much the same condition as before the fits commenced. As she seemed to be going downhill, I administered renal tabloids, giving her 5 grs. twice a day. Coincidently with this she began to improve; the quantity of urine a few days after the first administration increased and reached 47 ozs.—the largest amount she had ever passed while under treatment, the usual average being not more than 15 or 20 ozs. With the increase in the urine the amount of albumen greatly diminished and the œdema began to disappear. In the course of a month the urine averaged 1012 specific gravity, 40 ozs. in amount, and not more than 0.5 per cent. of albumen, and soon she was well enough to leave the hospital. Some months later she returned again in a condition of dropsy and chronic uræmia. She again took renal tabloids with great benefit, and left the hospital, except for the albuminuria, well. A third time she was brought to the hospital with uræmic convulsions, and died in a few hours.

I have had two or three other cases of the same kind, and in all the results have been the same, namely, an increase in the amount of urine and an improvement in the general condition. This improvement followed, and appeared to be due to the action of the remedy.

The use of renal extracts is still in a purely experimental stage. Judging by the analogy of myxœdema, it would be in the cases of chronic renal cachexia only that we should look for striking results, and this requires early and correct diagnosis. In acute uræmia there is so little time to act that recourse must be had to other and more active measures.

Sir, I have now finished the task you set me. My choice of granular kidney as the subject was inspired by the hope that what had interested me would prove of interest also to others. I trust I may not have misjudged. I have not hesitated to express my own opinions, even at the risk of appearing egotistic, though I trust with sufficient modesty to escape the charge of dogmatism. On a subject so full of difficult and contentious questions, I cannot expect that my views will commend themselves to all. Yet defined opinions challenge criticism, and criticism tends to advance knowledge.

THE MILROY LECTURES
ON THE
EARTH IN RELATION TO THE PRESERVATION AND DESTRUCTION OF CONTAGIA.

Delivered at the Royal College of Physicians of London

BY G. V. POORE, M.D., F.R.C.P.LOND.,
Professor of Medical Jurisprudence and Clinical Medicine, University College; Physician to University College Hospital.

LECTURE III.[1]

AGRICULTURE.

MR. PRESIDENT AND GENTLEMEN,—Enteric fever, diarrhœa, plague, and some other diseases are favoured by filth, although we are ignorant of the precise way in which filth favours the occurrence of these diseases. Some might say that a filth disease is a soil disease, and that there is no line of demarcation between the two. This is true, but it is nevertheless very necessary for practical purposes to distinguish the one from the other. We are all agreed that it is dangerous to allow the purlieus of a house to become sodden with liquid filth, but it might be equally dangerous to the public health to encourage the idea that it is dangerous to dung the land for fear of inoculating it with infectious disease.

Infective organisms contained in dung have to run the gauntlet of many enemies—such as dogs, sparrows, rats, flies, maggots, beetles, earthworms, moles, sunlight, fresh air, innumerable saprophytes (both aërobic and anaërobic), and the chemical action of the roots of plants. Of course, there may be spores which emerge from these ordeals unharmed and still virulent, but it is evident that, being mortal as we are, they are likely to succumb before the digestive and disintegrating processes which they encounter. The bulk of the evidence goes to show that contagia must be largely destroyed in the soil, and that agriculture is really the corner stone of preventive medicine. It becomes of great importance, therefore, to devise means by which the fertilising material of our towns may be applied to the soil with safety and despatch.

I may be pardoned for reverting to the method of dealing with human excreta which I have practised now for twelve years in my experimental garden at Andover:

1. The excreta are moved every day so that there is no accumulation of filth near the dwelling.
2. They are put just below the surface of freshly-dug ground so that they are out of the reach of flies.
3. The ground is planted with plants of the cabbage order as quickly as may be, so that very soon there is no possibility of dust being blown off the surface of the ground, and the mass of living cabbage leaves freshens the air.

I cannot believe that dust from agricultural land is a danger in this country, whatever it may be in the tropics. In my garden the ground treated in the manner stated, apart from the growth of cabbages, soon becomes coated with a green growth of alga. Mr. A. Gepp of the Natural History Museum, who visited my garden last summer, took some of this growth away and very kindly examined it, and he pronounced it to be an alga—"chiefly vaucheria sessilis (in good fruiting state) with a little ulothrix, a gloeocystis, and an oscillatoria." Such a growth effectually prevents the possibility of dust.

Dr. Samuel Hyde,[2] speaking on the Open-air Treatment of Consumption, says: "Sparseness of vegetation, like thinness of population, is a climatic factor favourable to the treatment of consumption. Where vegetable life abounds, there vegetable decomposition must also abound, and *vice versâ*. Wherever there is life we have a corresponding amount of death accompanied necessarily by the products of decomposition." That is true, but it is also true that wherever there is death we have the potentiality of a corresponding amount of life. I believe that what I have called the circulation of organic matter is a beneficent fact from which there is no escape, and that whether we derive good or ill from the inevitable processes of death and decay depends very much upon ourselves. We must never forget that vegetation purifies the soil, freshens the air, rests the eye, and prevents dust, and these facts must be recognised as to a great extent counterbalancing the evils of dead leaves, and apart from the question of food supply, it is, I believe absolutely necessary to encourage agriculture in order that our race may be maintained in vigour. The strong contrast which exists between the agriculturist and the town worker in the matter of health is well known.

Agriculturists are amongst the healthiest in the community, and even the farm labourer, in the matter of health, is 33 per cent. better than the average.

THE MAINTENANCE OF THE FERTILITY OF THE SOIL.

There is much evidence to show that dung is absolutely necessary to maintain the fertility of the soil. In a paper by Sir John Lawes and Sir Henry Gilbert on the valuation of unexhausted manures,[3] the difference between organic manures and mineral manures is well brought out. The lasting effects produced by farmyard manure (14 tons to the acre) are shown in the annexed table.

Experiments with Farmyard Manure on Permanent Grass Land.

—		Unmanured every Year.	Manured 1856-63, Unmanured since.	Excess of Manured over Unmanured.
		cwt.	cwt.	cwt.
8 years, 1856-63	1st crops only	$23\frac{3}{4}$	$42\frac{7}{8}$	$19\frac{1}{8}$
12 years, 1864-75		$19\frac{5}{8}$	$32\frac{7}{8}$	$13\frac{1}{4}$
20 years, 1876-95 (1st and 2nd crops)		$25\frac{1}{8}$	$29\frac{1}{8}$	4

In only one year—1893, a year of drought—did the manured plot give less produce than the unmanured. The authors say: "It is true that the application of 14 tons of farmyard manure per acre per annum for eight years in succession is an unusually heavy dressing; but it is of interest to know that the

Showing the Yield of Wheat in Bushels per Acre.

Period.	Mixed Mineral Manure.			
	Alone.	And NH_3 86 lb. N.	And NH_3 129 lb. N.	And NH_3 172 lb. N for first 13 Years (1852-64) Unmanured for last 19 Years.
	Plot 5	Plot 7	Plot 8	Plot 16
13 years, 1852-64 ...	$18\frac{3}{8}$	$37\frac{1}{8}$	39	$39\frac{1}{8}$
19 years, 1865-83 ...	$13\frac{1}{8}$	$29\frac{7}{8}$	$34\frac{3}{8}$	$14\frac{5}{8}$

residue was very materially effective for some years, and that it was more or less so for thirty-two years after the application." The experiments on barley and wheat with artificial manures are equally instructive (see Table, p. 587).

In the above experiments, in which dung was not used, we find that the yield was less in the second period than in the first, and that when the large amounts of artificial manure were withdrawn in Plot 16 the yield dropped almost at once. The authors say: "There is, in fact, abundant evidence to show that there is but little effective manure residue after the growth of a grain crop by the application of ammonium salts; and there is little doubt that the produce of one bushel and a half of grain and its straw per acre per annum more over the nineteen years after the cessation of the application of ammonium salts than on Plot 5 with the mineral manure alone is, so far as it is to be attributed to residue, mainly due to the increased crop residue—stubble and roots accumulated during the thirteen years of the application; and much the same may be said of the after-effects when grain crops have been grown with nitrate of soda." Again: "When organic matter, animal or vegetable, is applied to the soil as manure, its complete decay and the complete liberation of its fertilising constituents extend over a considerable period of time. Poor land cannot be suddenly brought into condition by the consumption on the farm of purchased foods; nor can condition"—that is, accumulated fertility, be at once withdrawn by suddenly stopping the used of food.

Food Supply.—Sir William Crookes, the President of the British Association, in his address (Bristol, 1898) drew attention to the fact that if populations continued to increase we might expect to be short of wheat. Our remedy was to increase the fertility of the wheat-growing area of the world, and taking, as was perhaps but natural, a purely chemical view of fertility, he put forward the proposition that the productiveness of the soil might be expected to bear a direct ratio to the amount of fixed nitrogen which is applied to it, and he found comfort in the fact that after the exhaustion of the nitre beds of Chili and the guano beds of Peru the chemist of the future would be able by the aid of electricity generated by Niagara and other natural forces to fix the atmospheric nitrogen for the benefit of the farmer. In the course of his address Sir William Crookes made allusion to the sewage question in the following words:

> There is still another and invaluable source of fixed nitrogen. I mean the treasure locked up in the sewage and drainage of our towns. Individually the amount so lost is trifling, but multiply the loss by the number of inhabitants, and we have the startling fact that in the United Kingdom we are content to hurry down our drains and watercourses into the sea fixed nitrogen to the amount of no less than £16,000,000 per annum. This unspeakable waste continues, and no effective and universal method is yet contrived of converting sewage into corn. Of this barbaric waste of manurial constituents Liebig nearly half a century ago wrote in these prophetic words: "Nothing will more certainly consummate the ruin of England than a scarcity of fertilisers; it means a scarcity of food. It is impossible that such a sinful violation of the divine laws of Nature should for ever remain unpunished, and the time will probably come for England sooner than for any other country when, with all her wealth in gold, iron, and coal, she will be unable to buy one-thousandth part of the food which she has during hundreds of years thrown recklessly away." The more widely this wasteful system is extended, recklessly returning to the sea what we have taken from the land, the more surely and quickly will the finite stocks of nitrogen locked up in the soils of the world become exhausted. Let us remember that the plant creates nothing; there is nothing in bread which is not absorbed from the soil, and unless the abstracted nitrogen is returned to the soil its fertility must ultimately be exhausted.

Sir John Lawes and Sir Henry Gilbert, in a communication addressed to the *Times* on December 2nd, 1898, point out that even supposing that atmospheric nitrogen could be fixed at a remunerative price, the addition of nitrates without the addition of the other mineral constituents necessary for wheat growing would be of no permanent use; but they express the opinion that the stores of nitrogen and other fertilising salts existing in our own soils and the soils of foreign countries can be made available by thorough tillage and proper rotation of crops. The land wants labour, and the production of wheat is likely to be proportionate to its market value. They point out that the average wheat production of the unmanured plot at Rothamsted (over 13 bushels) is greater than the average of the whole of the United States, a fact mainly due to proper tillage and thorough weeding.

It is tolerably evident that fertility is not merely a chemical question. The year 1898 was remarkable for a fine wheat crop in this country. The yield is said to have averaged 35 bushels instead of 28 or 29 bushels per acre. Sir John Lawes, in his annual letter to the *Times* (October 22nd, 1898) on The Wheat Crop of 1898, states that at Rothamsted the yield in the experimental plots was as under:

Wheat Crop in 1898.

—	Bushels per Acre.	Cwts. of Straw.
Plot 3, unmanured	12	12⅛
Plot 9, nitrates...	23¾	33⅞
Plot 7, ammonia salts	28⅝	44⅜
Plot 8, ammonia salts	29⅜	54⅞
Plot 2, farmyard manure	38	55¾

In 1898 at Rothamsted the plot dressed with nitrate of soda yielded 23 bushels, as against 38 bushels on the farmyard plot, and in explanation Sir John Lawes says: "For only the second time during a period of more than 40 years the wheat plant was much injured where we have used the heaviest dressing of nitrate of soda for want of enough rain to form and distribute a sufficiently dilute solution of it; and a similar result occurred in the year of drought of 1893; whilst in this year (1898) the barley plant was much injured with only half the amount of nitrate applied." Sir John Lawes also gives the average yield of these five plots for periods extending over 46 years.

—	Un-manured.	Farm-yard.	Ammonia Salts.	Ammonia Salts.	Nitrate of Soda.
36 years, 1852-87......	13	33¾	32¾	36½	36⅞
10 years, 1888-97......	12½	40¾	34¼	37⅝	33⅛
46 years, 1852-97......	12⅞	35¼	33⅛	36¾	36⅛

From the above table it will be observed that not only has farmyard manure proved to be practically the equal of artificials for nearly half a century, but that during the last ten years the yield from it has been considerably more than that of any of the artificially-manured plots. It is interesting to observe, also, that had the wheat-growing area of this country in the year 1898 been sprinkled with nitrate of soda after the manner of Plot 9 at Rothamsted, the yield might have averaged only 23 bushels instead of 35 bushels. On 2,000,000 acres, which is approximately the wheat area of the United Kingdom for 1898, this means a deficit of 24,000,000 bushels, or 3,000,000 quarters. The chemical analysis of a soil often fails to give the clue to its fertility or sterility. Mr. Robert Elliot, in a paper on The Value of Plant Roots as Tillers of the Soil,[1] quotes Sir John Lawes to the effect that "All our experiments tend to show that it is the physical condition of the soil, its capacity for absorbing and retaining water, its permeability to roots, and its capacity for absorbing and radiating heat, that is of more importance than its, strictly speaking, chemical composition." It is, in fact, abundantly evident that the biological side of fertility is quite as important as the chemical, and that organic manures are absolutely necessary to maintain the fertility of the soil, and that of all organic manure there is nothing to be compared with dung. If all that comes from the land be returned to it there can be no reason why the agriculturist should trouble himself with chemical theories. He has only by labour to maintain the soil in a good physical condition, and he may rest assured that its fertility will increase.

SANITATION IN HOLLAND.

In Holland the connection of sanitation with agriculture is far closer than with us and it is possible that we may derive some useful hints from our neighbours. In Holland the sanitary problems are of a formidable kind. The level of the country varies from a few feet above to a few feet below the mean level of the German Ocean, and it is needless here to recount how the Dutch people, marvellous for their shrewdness and untiring industry, have maintained a successful warfare against the forces of Nature. With the exception of two or three inconsiderable areas the whole of the kingdom of the Netherlands is a flat plain intersected at very frequent intervals by canals and rivers. These watercourses are all sluggish, and in some of them the slow current is maintained artificially by pumping. It may be said that every Dutchman lives within a few yards of a watercourse of some kind, be it ditch or canal. These canals form a very cheap and admirable means of internal communication and in consequence the barge population is very large indeed. The population of Holland tends steadily to increase, such increase being most marked in the big towns.

In no country in Europe, probably, has the state of public health improved more remarkably than in Holland.

The causes of this improvement in the death-rate are probably (1) the improvement in the physical and moral condition of the lower strata of society; (2) sanitation in its widest sense; (3) the rapid increase of population especially in the towns, causing a dilution of the high death-rates in the old crowded portions by the lower death-rates of new settlers in the outskirts; and (4) the decrease in the birth-rates. In Holland, as in England, the importance of pure water, especially for town populations, is abundantly recognised, and public supplies have within recent years been carefully protected from pollution and filtered before being distributed. The risk from drinking canal water must have been very great indeed. The mode of dealing with fæcal matters is necessarily different from ours. In Holland waterclosets are the exception and not the rule, and while the slop water of the houses is allowed to flow into the canals the fæces are collected and used for agricultural purposes.

In Holland generally the death-rate from enteric fever compares favourably with our own. Knowing as we do the great risk of drinking sluggish water liable to fæcal contamination (which has been exemplified in the Tees valley) the low enteric death-rate in Holland is not a little remarkable. Enteric being a fever of slow and insidious onset, it is impossible in sporadic cases to say where or how the patient may have been infected, and in cities with an ever-shifting population this difficulty is accentuated. That being the case, it will not be without interest if I give a few particulars concerning the provinces of Groningen and Friesland which I visited in the vacation of 1898. These two provinces are almost entirely devoted to dairy farming, the breeding of horses and cattle, and agriculture. The shifting and travelling population is a small one, and it is here if anywhere that we may learn the effect of local habits and customs on the public health.

In the town of Groningen, with 63.863 inhabitants, the improvement in the death-rate in the past twenty years has been as remarkable as that observed in the other Dutch cities or in any town or city in that country. In this town, as also in Leeuwarden, the capital of Friesland, and in the great majority of Dutch towns, the fæcal matter is collected in pails, and it is probable that in the whole extent of the two northern provinces of Groningen and Friesland there is not a watercloset to be found. The whole of the fæcal matter is scrupulously collected and returned to the soil. Dutch cleanliness is proverbial, and certainly I have never been in a town so exquisitely clean as in the town of Groningen. The accumulation of ordure in the streets and backyards is simply not tolerated, and the inhabitants co-operate with the scavengers in clearing away all refuse as quickly as possible. The collection of the fæcal matter is very simple. The closet pails are much smaller than those which are commonly used in this country, and they are emptied twice or thrice a week or daily if the householder is ready to pay a small fee. The collecting cart is really a tank upon wheels with a sort of hood projecting behind like the hood of a carriage facing the wrong way. The pails are brought out, and the man and pail are hidden by the hood as the contents are simply tipped into the tank. The pails, even when full, being such as one man can lift easily, the collection is probably ten times as rapid as is the case in those English towns which make use of huge two-man pails, which, when empty, weigh 50 lb. and more. Again, it is obvious that the Groningen authorities do not make the mistake of hauling about an immense weight of pails which add enormously to the expense. The depôt where the material is collected is on the outskirts of the town, where a wharf has been constructed with a view to its removal by barge for the purposes of the farmer. Here, again, the arrangements are very simple. The stuff is simply stacked beneath rough sheds covered with corrugated iron. The men employed have found out exactly how to do it, and by arranging a layer of street sweepings with peat ashes (the fuel used in this district is almost exclusively peat) alternately with a layer of pail contents, the whole mass drains and consolidates into a very rich black manure which the farmer highly appreciates. The floor of the depôt is concreted and provided with channels, so that the urine drains away into a large tank, whence it is pumped into barges for the use of the agriculturist. Considering the work which went on in it, this depôt was wonderfully neat; the stacks were as evenly made as the best hay stacks, and the paths between them were quite free from befoulments. The smell from the putrid draining was, to say the least, powerful; but the solid stuff soon ceases to be very offensive. There were large numbers of flies in this depôt, but I frequently remarked that the flies in the town of Groningen were not nearly so troublesome as is the case in cities less carefully scavenged.

In the town of Leeuwarden the pails are taken to and fro to the depôt, but the pails are much smaller and lighter than those in use in England, so that 54 of them (three tiers of 18 each) can be carried on a one-horse lorry. In the 10 years (1885-94) there were in each of the provinces of Groningen and Friesland 490 deaths from enteric fever and typhus fever, 980 deaths in all or an average of 98 per annum in a population of some 600,000, giving a rate for typhus fever and enteric fever of 0.16 per 1,000. During the same period there were 97 deaths from the same cause in the town of Groningen and 27 in the town of Leeuwarden, or 124, giving an average of 12.4. These figures are not large, but they show that as regards these diseases the condition of Groningen was slightly worse than the town of Leeuwarden. As in England so in Holland, the death-rate from enteric fever has been falling steadily, and the returns for the last available year (1897) are very instructive. From these returns I find that in the province of Groningen, with 296,521 inhabitants, there were 23 deaths from enteric fever in 18 parishes, giving a death-rate of 0.08, and in the province of Friesland, with 339,425 inhabitants, there were 19 deaths from enteric in 12 different parishes, giving a death-rate of 0.056 per 1,000. It is a remarkable and most interesting fact that in 1897 there was no death from enteric fever in either of the capital towns of Groningen or Leeuwarden, containing over 95,000 inhabitants (Groningen 63,863 and Leeuwarden 31,598).

The figures given above must be taken to show that in these two provinces there is no serious endemicity of enteric fever. When we consider that dairy farming is the staple industry of these provinces, that milk, which is most sensitive to typhoid fever infection, is everywhere abundant, and that human excreta containing a certain proportion of typhoid fever excreta are used, and have been used for ages, to manure this fertile district, which almost lies in the water, the comparative freedom from enteric fever seems very full of instruction.

These facts seem to me to afford a very large measure of proof that there is no inherent danger in the methods of sanitation pursued in Groningen and Friesland, and, in fact, in Holland generally.

In the United Kingdom of Great Britain and Ireland there are, including waste lands, 77,672,000 acres supporting a population of 40,000,000, and in Holland there are (excluding lakes and rivers) 7,786,000 acres supporting 4,894,000, so that Holland supports a bigger population per acre than the United Kingdom.

In the United Kingdom the area under cultivation (crops and grass) amounted to 47,868,553 acres in 1897, and this figure appears to be slightly decreasing. In Holland in 1895 the total area under crops and grass was 5,149,817 acres, showing an increase of 95,000 acres in the preceding three years. In the United Kingdom there is 1.2 acre of cultivated land per head of the population, and in Holland there is 1.05 acre. Let it not be supposed that the Dutchman owes his position of agricultural supremacy to the "natural" fertility of the soil of his country. Doubtless he has found a large amount of well-watered pasture land ready to hand, but it is undeniable that some of the very best of his land has been won from the sea, the desert moorland, and the bog, by indomitable pluck and perseverance. Above all, the Dutchman is fully impressed with the necessity of returning to the soil everything that comes out of it. Nobody knows better how to facilitate that circulation of organic matter which is a law of Nature, and he sees that his profit depends upon the completeness and rapidity of that circulation, and that in farming, as in other businesses, a rapid turnover of capital is to be aimed at. In Holland everything which has manurial value is returned to the land, and we find that the population is increasing as fast as ours, and that the land under cultivation is increasing, although the area of land is less per head in Holland than in the United Kingdom. The level of public health is as high in Holland as in the United Kingdom, and an enormous amount of farm, garden, and dairy produce is exported to this country, where the land under cultivation is tending to decrease, where manurial wealth is being recklessly burnt or turned into the sea, and where one-half of the population is absolutely ignorant of the uses and value of dung, and the other half is, if not ignorant, too squeamish to use it.

CARRINGTON MOSS.

This seems to be the place in which to allude to the spirited action of the city of Manchester, which has reclaimed Carrington Moss, and is about to reclaim Chat Moss by fertilising the ground with the organic refuse of the city. The ground is a virgin peat, which is admitted to be deadly to one at least of the supposed earth organisms. The experiment is a splendid one, and will certainly be the precursor of similar action elsewhere. The material sent to Carrington in 1897 consisted of 37,082 tons of nightsoil, 587 tons of sweepings, and garbage, and 11,673 tons of cinders. The Carrington Moss estate, therefore, regarded merely as a dumping ground for garbage and refuse, must be a source of satisfaction to the Cleansing Committee of the city of Manchester.

On August 11th, 1897, I visited Carrington Moss and had the advantage of being shown over it by Mr. McConnell, the bailiff. Carrington Moss was bought by the Manchester Corporation in 1886. It is ten miles from the city, in close proximity to the famous Chat Moss, from which it is separated by the Manchester Ship Canal, which serves for the transit of material from Manchester. The estate, for which the corporation gave £38,000, has an extent of 1,100 acres, of which 600 were wild Moss commanding a rental of a shilling an acre for sporting rights. The corporation has spent £56,000 on light railways, roads, drainage, rolling stock, buildings, etc., making the cost £94,000. (The outlay on the estate is given as £82,946 in the City Treasurer's Abstracts, 1897.) In the nine years 1889-97 491,686 tons of refuse material have been placed upon Carrington Moss, or very nearly 50 tons per acre per annum. The moss has been drained by a series of deep trenches, with nearly vertical sides, cut at regular intervals. The refuse, as it arrives from Manchester, is transmitted by means of a light railway to various parts of the estate, where for the most part it is placed in heaps and allowed to "ripen" before being placed upon the ground. These heaps soon cease to be in the least offensive. Nightsoil is frequently applied directly to the fields. At the time of my visit two barges, estimated to contain 80 tons of refuse, were unloading at the little wharf which has been especially constructed. The hay harvest was just over and the corn harvest was soon to commence. The crops one and all were in splendid condition. Oats, potatoes, carrots, wheat, and all the other usual farm crops appeared to be first-rate, quality excellent, quantity enormous. The roads were hard and firm, having been brought to this condition by the application of clinker and other forms of hard material from the city. The farm is not quite a dead level, but the inequalities of the surface are very slight, so that from every point the spectator is able to survey an area of very considerable extent. Without previous knowledge there was nothing in the appearance of the farm (except the deep trenches) to indicate the character of the subsoil. All indications of bog had completely vanished. On reaching Mr. McConnell's house we walked out upon a pretty lawn surrounded by a flower border brilliant with carnations and the ordinary garden plants. The lawn was firm and perfectly dry and I was not prepared for the demonstration which I was to have of the character of the subsoil. Taking an iron rod having a length of 11¾ ft. and a diameter of about ¾ inch, Mr. McConnell with one hand drove it through the turf of his lawn completely up to the handle. I then did the same thing. As the rod passed through the first foot or so there was some resistance and a sense of grittiness was imparted to the hand, but, this first obstruction passed, the descent of the rod was progressively easier until it was finally stopped by the handle resting on the lawn. On withdrawing the rod the lower half was found to be wet, while the upper part was dry. To the upper half clung a little grit and peaty earth, the lower half was clean but wet. It was then only that one recognised that this fertile paradise was literally floating.

Mr. McConnell informs me that Carrington Moss is everywhere about 12 ft. in depth and that the variations in depth are very slight; whereas Chat Moss, although distant only a few miles, has a depth which varies from 4 ft. to over 30 ft. On Chat Moss, where the digging of drainage trenches was in progress, I examined the peat which had been removed. These trenches are dug to a depth of about 4 ft. to begin with. The peat near the surface had the ordinary fibrous character, whereas that from the bottom looked like brown jelly. The moss resembles a huge sponge. Mr. McConnell states that the surface of Carrington Moss is gradually sinking. The sponge is being squeezed and drained, and rendered more compact. The half million tons of garbage which have been placed upon the surface must exercise considerable pressure, and must serve to squeeze moisture into the deep trenches. Then, again, the upward drainage of the abundant crops is obviously very large indeed. The amount of moisture retained by and evaporated from an acre of oats or mangel must be very great.

Mr. McConnell assured me that the farm as a place of residence is by no means damp, and that the rain that falls upon his lawn quickly drains away to the reservoir beneath, and leaves the surface dry. He and his family and the employees on the farm have always enjoyed excellent health. There has been one case of enteric fever in nine years, the cause of which is doubtful.

Of the 1,100 acres of land occupied, 372 acres are farmed by the committee, 639 acres are let to tenants, and the rest is occupied by roads, wharves, plantations, etc. The rental of the portion which is let amounts to £1,516 19s., or about £2 7s. 6d. per acre, while the rent of the amount retained by the corporation is put in the accounts as £933 (that is, £2 10s. per acre for the 372 acres farmed, or just £2 if the roads, etc., be included).

In the year ended March 31st, 1897, the value of the farm produce amounted to £3,632, or about £9 15s. per acre, while the net profit on the farm appears to have been £1,041, or £2 16s. per acre. The amount paid in wages was £1,520, and the rent, as stated, was £933. If we may assume, as we have every right to assume, that the land rented was as productive as the land retained by the corporation, then the value of the produce of the 1,011 acres under cultivation would, at £9 15s. per acre, amount to £9,864, and we then arrive at the conclusion that each of the 49,342 tons sent to Carrington Moss in 1897 produced almost exactly 4s. worth of food. But now that the Moss is entirely reclaimed it will not take more than 30 tons of stuff to the acre, or, say, 30,000 tons per annum. Thus by a well-considered expenditure, Manchester has provided itself with (*quâ* refuse) a destructor capable of dealing with about 100 tons per diem for ever, and in its formation this machine has absorbed nearly half a million tons of refuse of which the city had of necessity to be rid at all costs. When the loans necessary for the purchase and development of this estate have been paid off it is certain that Carrington will cost the Manchester ratepayer nothing, and will probably yield a return in crops of about 6s. 8d. for every ton of refuse used. Land which produced nothing, and which let for 1s. per acre, has been made to yield £10 worth of produce, and an eventual rental of £2 10s. per acre. This is a result of which Manchester may well be proud.

CONCLUSIONS.

I have brought forward a considerable number of facts to prove that the dangers of applying dung to the soil are as nothing in comparison with the advantages—advantages which have been acknowledged from the dawn of historic time till now. It remains to say a few words on the financial side of the question. The great experiment at Manchester seems to prove conclusively that even in a huge city and with the heavy outlay which seems to be inseparable from all modern municipal undertakings, a well-considered scheme of application of offal and ordure in a dry state to the soil is the most economic way of getting rid of it. I have shown how in Holland great cities may be kept spotlessly clean, and in spite of obvious difficulties the public health be maintained by a well-devised system of scavenging. The cleanliness of Groningen is a thing which is scarcely realisable by one whose ideas of street sanitation are acquired in the West End of London, and the economy with which the scavenging is accomplished seems astounding to that poor pigeon, the London ratepayer. I have further shown that Holland, with a smaller area of cultivated land in proportion to population than England, is able to export to this country enormous quantities of farm and dairy produce; and that, while the English farmer can scarcely exist, the Dutch agriculturist grows rich.

It will not be uninteresting, perhaps, if I give some of the financial results of my small experiment at Andover, which is now in its fourteenth year of trial. In this experiment the ordure and house refuse of about 100 persons have been removed and applied daily for gardening purposes. The amount under the spade is now exactly one acre, one rood, and seven poles, and I should like to say that the quantity of fæcal matter at the disposal of my gardener by no means satisfies him. I am also convinced that the garden might take with advantage at least double the quantity, if not more. There is no evidence after a long experience that the soil is overdone. On the contrary, its "condition" has steadily improved. The produce of my garden has been sold on the principle of profit-sharing, so that the gardener is interested in extracting the greatest amount of produce from the soil. During the past year careful accounts have been kept, and I find that the produce fetched £72 9s. 6d., which works out to £56 per acre. Of this sum £41 12s. 7d. were received for fruit and £30 6s. 11d. for vegetables. The method of agriculture which I pursue is well known, but this has caused no prejudice against the garden produce, which finds a very ready market.

Except in the vacation, I certainly do not visit Andover more than once a month. My experience leads me to say that it is to me almost inconceivable that the daily scavenging of our towns should not yield enough profit to pay the wages. It is especially to be noticed that the yield of this garden has undergone steady increase, and I have every hope that such increase will continue. But it would be a great mistake to suppose that an acre of ground cultivated and manured as is my garden is going to yield £50 worth of produce per annum at once. The test of true gardening is increase. With the lapse of years and without appreciable cost the increase of fruit trees is automatic, and the yield of seeds is equally automatic and prodigious. My garden has gradually become fully furnished to a large extent with its own offspring, and in that fact lies part of the secret of its increasing yield. What we see in the London parks in the summer is not "gardening," but a beautiful display, after the manner of the bouquetiste, of the results of gardening elsewhere. In the same way the filling of flower beds with a crowd of named and fashionable plants bought for the season is not gardening, but a mere evidence of wealth. The real gardener in these cases is the nurseryman.

The gradual increase in the yield of a plot of land, at least for a very long series of years, is limited only by the amount of skill and tillage which it receives and the amount of dung which is available for it. We are gradually becoming alive to the fact that fertility is a biological question rather than a chemical question. To imagine that chemicals can ever replace dung is a pure delusion from which we shall some day be aroused. The success or failure of agriculture is very largely a question of dung, and it must be admitted that the dung prospects in this country are very bad indeed. Imported animal food yields very little dung for the land, because it is mostly washed (ultimately) into the sea, while the use of steam engines, motor cars, and bicycles must mean a diminution of horse dung. The sanitary pioneers of half a century ago thought that the huge expenses of modern sanitation would be compensated by the yield from sewage farms. That has proved to be erroneous. Sewage has proved to be merely the happy hunting ground of sanitary tradesmen who have fattened on the ratepayer. The century closes with the spectacle of a Royal Commission still discussing the best way of destroying the potentialities of life and prosperity.

In these lectures I have brought forward many facts to show that there is no proof of any danger arising from the use of dung for agricultural purposes, while it is undeniable that the practice of agriculture is pre-eminently healthy and invigorating. I have been unable to find any evidence that contagia spread in the soil. To live in filth and to inhale the products of putrefaction given off from privies or pails of fæces or sodden ground result in disease, but there is no evidence whatever that disease thus generated is able to spread through the soil and infect a neighbouring house or street. Looked at in another way we must admit that filth disease, like many other forms of disease, is proportionate to overcrowding.

While we exult (not always reasonably) in our diminished death-rate, let us not forget the diminished birth-rate, the multiplication of asylums of various kinds, and the steady increase in the amount of help from public funds which is necessary to maintain the health and decency of the masses. The year just ended has been unsurpassed in the volume of trade and the bounty of the harvest, but the infant mortality in our towns for the Michaelmas quarter was the highest on record.

At present he who advocates any attempt to entice a fair proportion of the people "back to the land" is regarded as a Utopian dreamer. I feel convinced that the only chance of getting a living from agriculture lies in the due enrichment of the soil. There is no chance of this so long as the only form of sanitation which receives any official encouragement is one which involves a systematic starvation of the soil. One sometimes comes across statements which would lead one to suppose that cultivated land is a public danger, statements which are mere assertions. Our sanitarians, careless of food supply, are liable to be dominated by ideas and to fix their attention unduly upon one side of the question and upon one disease. The more enthusiastic of them, if they can secure a trifling diminution in the mortality from one disease, seem quite ready to "make a solitude and call it peace."

REFERENCES.

[1] Lectures I and II were published in the BRITISH MEDICAL JOURNAL of February 25th and March 4th respectively. [2] BRITISH MEDICAL JOURNAL, October 8th, 1898. [3] *Journal of Royal Agricultural Society*, vol. viii, 1897, p. 674. [4] *Ibid.*, vol. viii, 1897, p. 469.

THE PASTEUR INSTITUTE IN HYDERABAD.—A Hyderabad correspondent states that the statement already made regarding the scheme being settled is premature and somewhat inaccurate. He, however, allows that a scheme for such an institute has been formulated, and is now before His Highness the Nizam for consideration and orders, and that it contemplates not only the foundation of a Pasteur Institute, but also of a bacteriological laboratory. For the last six or seven months work has been going on in a temporary laboratory in connection especially with the plague, and many important results have been obtained.

THE ARRIS AND GALE LECTURES
ON
THE ANATOMY AND SURGERY OF THE PERITONEAL FOSSÆ.

Delivered at the Royal College of Surgeons of England,

BY B. G. A. MOYNIHAN, M.S.LOND., F.R.C.S.ENG.,
Assistant Surgeon, Leeds General Infirmary, etc.

LECTURE II.—THE PERICÆCAL FOLDS AND FOSSÆ.—PERICÆCAL HERNIA.

[ABSTRACT.]

THE pericæcal folds and fossæ are primary and secondary. The primary folds are vascular in origin; the secondary folds are dependent upon the adhesion, sometimes wanting, between the cæcum and ascending colon and the posterior abdominal wall. The primary folds are found whatever the position of the cæcum may be, the secondary are only present when the cæcum and ascending colon are normally placed.

The primary folds are:

1. An anterior, raised up by a branch of the ileo-colic artery as it runs over the anterior aspect of the ileo-colic junction.
2. A posterior, raised up by the artery to the appendix.
3. An intermediate, which is partly muscular and partly vascular in origin.
4. An accessory anterior fold due to a lateral branch of the ileo-colic artery.

THE ILEO-COLIC ARTERY AND ITS BRANCHES.

The ileo-colic artery (Fig. 12) as it approaches the angle of junction of the ileum with the ascending colon gives off, as a rule, five branches. The precise mode of origin of these branches may vary within considerable limits. The most frequent arrangement is for the vessel to divide into two main trunks which subsequently split up, the anterior into two, and the posterior into three branches.

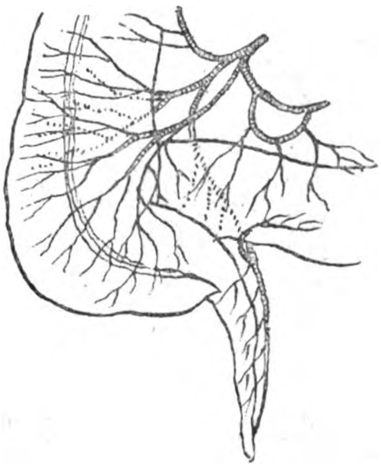

Fig. 12.—The ileo-colic artery and its branches.

The anterior branches are: (*a*) A branch running to the left along the upper border of the ileum, and (*b*) a branch which continues, in the line of the ileo-colic, over the ileo-colic junction. In a few cases the largest offshoot of this latter branch is a vessel which runs to the right on to the colon, forming in its course a well-defined curve with the concavity upwards and to the right. The posterior branches are: (*a*) A branch running upwards to anastomose with the right colic; (*b*) a branch which runs to the posterior aspect of the junction of the ileum with the colon distributing twigs to the right and left; and (*c*) the appendicular artery which runs in the meso-appendix to the tip of the vermiform process. The chief branch of this last vessel arises close to the lower margin of the ileum, and runs with a curve downwards and to the right, and again arches upwards and to the left in the ileo-appendicular fold.

The Anterior Vascular Fold (ileo-colic fold or fold of Luschka).—This fold is constant.—The younger the subject the better marked the fold, as a rule. In the aged and in the obese it may become blurred and flattened, but it is always present. It is semilunar in shape, having a curved attachment to the anterior layer of the mesentery, the anterior aspect of the ascending colon, and the cæcum down to the root of the appendix. The free edge of the fold containing the vessel looks to the left, and is shorter than the attached margin, representing, as it were, the string of a bow. The fold is thin, sharp, and transparent in the young; thick, dull, and fatty in the aged. In its upper part are generally one or two lymphatic glands. The ileo-colic fold is sometimes continued on into the appendix, and the vessel it contains replaces the appendicular artery.

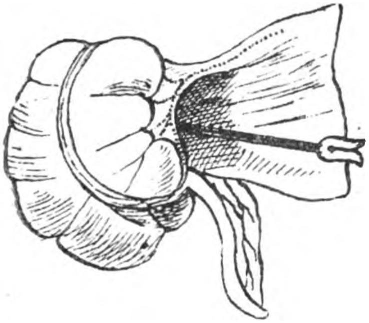
Fig. 13.—The ileo-colic fold and fossa.

The Accessory Anterior Vascular Fold (Fig. 14).—In 17 cases out of 200 I have met with a distinct fold raised up by the lateral branch of the anterior division of the ileo-colic before referred to. The fold is well seen in the figure. A small fossa lies behind it. Both the fold and the fossa determined by it have hitherto escaped recognition.

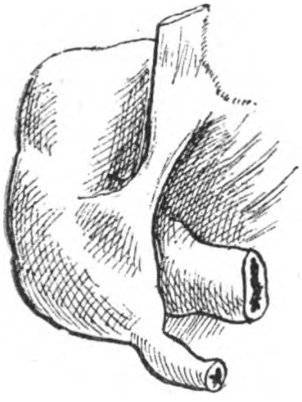
Fig. 14.—The accessory ileo-colic fold and fossa. The ileo-colic fold is continued into the meso-appendix.

The Anterior Vascular Fossa (ileo-colic fossa: fossa of Luschka).—This is a narrow fossa or chink situated between the ileo-colic fold in front, and the enteric mesentery, ileum, and a small portion of the upper and inner part of the cæcum behind.

The Posterior Vascular Fold—Meso-Appendix (Figs. 15 and 16). —To see this fold clearly the cæcum and appendix must be turned upwards. It is quadrilateral in shape. Its superior border springs from the mesentery, the right is attached to the colon on its postero-internal aspect for a short distance, and then to the cæcum; the inferior to the whole length of the vermiform appendix; the internal or left border is free, and contains the appendicular artery. The anterior surface is joined by:

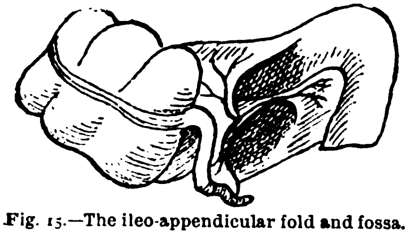
Fig. 15.—The ileo-appendicular fold and fossa.

The Intermediate Fold: Ileo-appendicular Fold (bloodless fold of Treves) (Figs. 15 and 16).—This is quadrilateral in outline. The upper border is attached to the ileum, opposite the mesenteric attachment, for about 1½ inch to 2½ inches; the lower border extends from the angle formed by the appendix with the cæcum inwards on the anterior surface of the meso-appendix, or occasionally on the appendix itself. The outer or right margin is attached to the inner aspect of the cæcum as far down as the root of the appendix. The left or inner border is concave and free. This latter edge contains the recurrent, or ileo-appendicular artery, given off from the appendicular vessel close to the lower margin of the ileum. Between the two layers of peritoneum in this fold, especially in children, are seen some muscular bundles continuous on the one hand with the cæcum, and on the other with the ileum. In later years so much fat may be deposited between the layers that it forms a solid slab, resembling a minature thickened omentum.

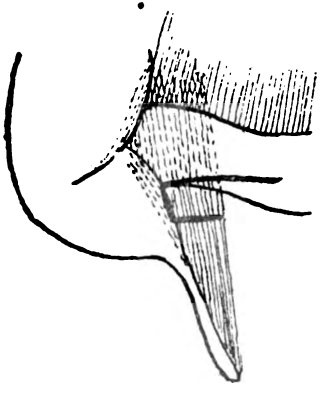
Fig. 16.—Diagram of attachments of the meso-appendix and ileo-appendicular fold.

The Ileo-appendicular Fossa (ileo-cæcal fossa) Figs. 15 and 17. —This fossa lies between the ileo-appendicular fold and the mesentery of the vermiform appendix. On section it is triangular, being bounded above by the posterior surface of the ileum and the mesentery, in front and below by the ileo-appendicular fold, and behind by the upper part of the meso-appendix. Two cases are recorded in which it is believed that this fossa has become closed at its mouth and subsequently dilated to form a cyst (Schott, Widerhofer).

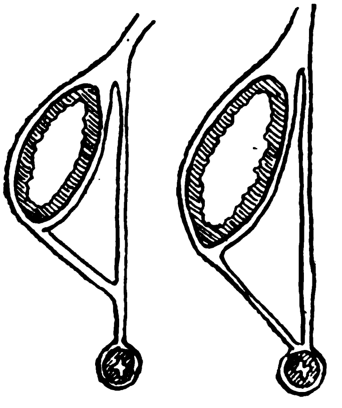
Fig. 17.—The ileo-appendicular fossa, in section.

The Fossa of Hartmann (fossa ileo-cæcalis infima).—In some cases the lower attachment of the mesentery to the iliac fossa is prolonged into a sharp fold, the "inferior ligament" of Tuffier. Between this fold and the mesentery of the vermiform appendix there may be found a small fossa, funnel-shaped in general, but occasionally subdivided by a small peritoneal fold (Leichtenstern).

SECONDARY FOLDS AND FOSSA.

On lifting up the cæcum there may be seen:

The Retrocolic Fossa (Fig. 18) of variable size and capacity.

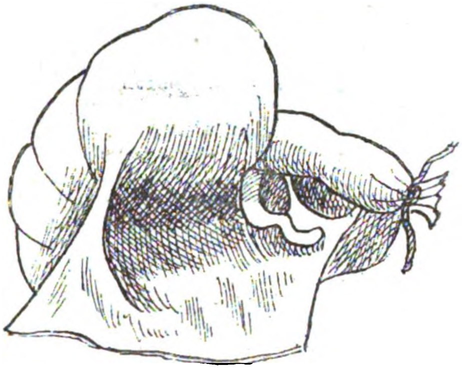

Fig. 18.—Retrocolic fossa.

In some cases the whole length of the index finger can be comfortably laid in a sort of peritoneal tube which extends upwards to the kidney. In others there may be merely a narrow and shallow dimple that would contain the tip of a lead pencil. This fossa is bounded and determined by two folds—(1) an outer and upper, and (2) a lower and inner.

1. *The Parieto-colic Fold* (fold of Hensing, superior ligament of the cæcum).—Roughly triangular in shape, this fold contains some tough, strong, shining, fan-shaped fibres. Its posterior border is attached to the abdominal wall from the lower border of the kidney over the iliac crest to the iliac fossa; the anterior or internal border is attached to the postero-external aspect of the colon, extending not seldom on to the cæcum also; the lower free border or base is concave, and extends from the iliac fossa to the intestine. The summit or apex is firmly fixed in the lumbar fossa.

2. *The Mesenterico-parietal Fold* (inferior ligament of Tuffier).—Is in reality the insertion of the enteric mesentery into the iliac fossa. In some cases it is prolonged downwards as far as the inguinal canal in the plica genito-enterica of Treitz. These two folds may be each continued downwards and coalesce in the formation in the iliac fossa of a falciform fold. In such a case the fossa formed by them would be retrocæcal, not retrocolic.

Fossa Iliaco-subfascialis (fossa of Biesiadecki).—This is situated about the middle of the iliac fossa; its orifice is directed upwards, and is bounded in front by a more or less well-defined fold, the inner extremity of which is directed upwards over the psoas towards the root of the mesentery, and the outer extends towards the iliac crest. The fossa is about 1½ inch to 2 inches in diameter, and is placed at the junction of the upper loose iliac fascia, and the lower tense and more firmly fixed portion.

Genesis of the Folds.—The ileo-colic fold and the meso-appendix are vascular in origin.

The ileo-appendicular fold is more difficult to account for. Luschka believed that it was muscular in origin. Treves asserted that it was the true mesentery of the appendix, the meso-appendix being a substituted mesentery. Jonnesco and Berry consider that the fold is a subsidiary mesentery of the cæcum. Without entering into the reasons, I may say that my view is that the fold is of dual origin; that it is primarily muscular, dependent upon the ileo-appendicular muscle; and that later its development is modified by, and attributable to, the ileo-appendicular vessel. This fold is the last to appear in the embryo, less constant than the meso-appendix, and receives its vessel (upon which it to some extent depends for its existence) from the posterior vascular fold.

With regard to the genesis of the retrocolic fossa and the parietocolic fold, I have already stated that they are secondary, and are due to the coalescence, sometimes wanting, of the posterior surface of the ascending colon, and sometimes, though rarely, of the cæcum to the posterior wall of the abdomen.

PERICÆCAL HERNIA.

So far as I am aware, there are no cases on record which can be considered as hernial protrusions into either the anterior vascular fossa or the accessory anterior vascular fossa. The fossæ are only of anatomical interest; they have no pathology.

With regard to the ileo-appendicular fossa, I have already referred to its cystic dilatation. In 4 cases it has been the seat of a hernia.

CASE I.—Recorded by Tuffier in a meagre and unsatisfactory manner. The patient was a man aged 50, very stout An intestinal loop, which measured 8 cm., was contained in this pouch, which was very dilated.

CASE II.—Specimen in the Musée Dupuytren (pièce de Michon). This is referred to by Tuffier as a true specimen of ileo-appendicular hernia. Jonnesco says of it that "it is not very convincing."

CASE III.—Recorded by Dr. Little (Fig. 19). A drawing is given. Man, aged 60, powerfully built. Nine days symptoms of intestinal obstruction, terminating fatally. "From a point near the tip of the vermiform appendix a narrow, but strong, whitish band is seen passing to an attachment into the front of the ileum, at a distance of about 2in. from the termination of the latter gut." A large loop (16 or 18 inches in length) was strangled by this band, which is evidently the ileo-appendicular fold. The case is very fully and graphically described, and remarks are made on the anatomy of this region.

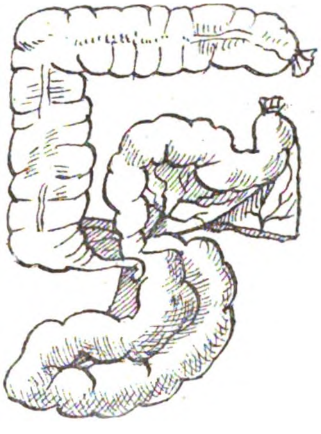

Fig. 19.—Little's case of ileo-appendicular hernia.

CASE IV.—Recorded by Mr. Partridge. A maid servant, aged 26, died after five days' acute obstruction. A knuckle of the ileum immediately above its termination was found strangulated and much congested, in consequerce of having passed through, and become impacted in, a hole or interspace in the mesentery of the vermiform appendix. The specimen is said to be in the King's College Hospital Anatomical Museum, but it cannot be traced.

There are also many cases of hernia of the vermiform appendix into the pouch.

Hernia into the Retrocolic Fossa.—Jonnesco accepts the following as genuine cases of hernia into this fossa: 1 by Fages, 1 by Wagner, 1 by Parise, 3 by Rieux, 1 by Engel, 1 by Klebs, 1 by Moxon, 1 by Josse, 1 by Furst. On careful perusal of these cases, the only ones that can be accepted as even possibly of this class are the last two recorded by Rieux. All the others are negatived either by paucity and inexactness of description, or belong quite obviously to a different variety altogether. Moxon's case, recorded by Pye-Smith, is in the Guy's Museum. It is a beautiful example of right duodenal hernia, and has no connection whatever with the cæcum.

Hernia into the Fossa of Biesiadecki.—One example of this was exhibited at the London Pathological Society by Dr. Mott. It was seen and recognised by Mr. Treves as a hernia into the fossa iliaco-subfascialis. A case recorded by Engel is very probably also of this variety.

Hernia into the Fossa of Hartmann.—One case has been recorded by Dr. Snow. A lady, aged 24, when in the eighth month of pregnancy, was seized with acute abdominal pain, which was followed by symptoms of intestinal obstruction, ending fatally on the fourth day. The record of the *post-mortem* appearances is rather bewildering. I think, however, that only one conclusion is possible, and it is that hernia occurred into the fossa of Hartmann. The case is so accepted by Leichtenstern.

THREE CASES OF CYST OF THE PANCREAS TREATED BY INCISION AND DRAINAGE THROUGH THE ANTERIOR ABDOMINAL WALL.

By BILTON POLLARD, B.S., F.R.C.S.,
Surgeon to University College Hospital, and Consulting Surgeon to the North-Eastern Hospital for Children.

THE diagnosis of pancreatic cysts by means of the clinical signs presented by them is admitted to be very uncertain, and, as the condition is rather uncommon, it is desirable that cases should be reported; and there is the further reason for this course that surgeons have not yet decided which is the best way of dealing with them. Pancreatic cysts have been completely removed by some surgeons; by others they have been incised and drained through an incision in the anterior abdominal wall; and by others they have been drained through the loin by an incision below the last rib. The cases recorded below were all treated by drainage through an anterior abdominal wound. It has been objected to this method, on the one hand, that the adhesion which must of necessity be formed between the anterior and posterior walls of the abdomen might be injurious, and, on the other hand, that possibly simple drainage might not effect a permanent cure of the disease. I have delayed publication of these cases in order that, in regard to them, time might show the validity or otherwise of these two objections. It is now nearly five years since my first case was operated upon; the second case was operated upon three years ago, and the third case two years ago.

CASE I.

J. N., male, aged 34, a signalman, was admitted to University College Hospital, under the care of Dr. Ringer, on March 10th, 1894.

History.—According to his account, about three weeks previous to his admission he was awakened one night by a sharp pain in his epigastrium, and he began to vomit. After two days the vomiting ceased, and the severe pain was replaced by a burning sensation in the epigastrium, whence it radiated to his throat. This pain, associated with occasional attacks of vomiting, had persisted since. During the last six years the patient had suffered from some half-dozen similar, though less severe, attacks.

Condition on Admission.—The patient, though not emaciated, had evidently lost flesh. His temperature ranged from 99.6° to 101.2°. He took food well, and suffered no discomfort from it. There was no jaundice. The motions were of good colour, and contained no excess of undigested fat. The urine was normal. The upper part of the abdomen and the lower part of the chest on the left side were bulged, owing to the presence of a mass which could be felt to occupy the whole of the left hypochondriac region and a large portion of the epigastro-umbilical and left lumbar regions. The lower and right borders of this swelling could be defined with ease, forming a well-marked curved edge, which extended to the right for 2 inches beyond the middle line and downwards to a point 2 inches below the level of the umbilicus; above and to the left the mass extended beneath the costal margin; it occupied the lumbar region, but it did not fill up the loin in the interval between the last rib and the iliac crest. Fluctuation and thrill were easily obtained. The mass was only slightly movable. It could not be moved on the deeper parts, but the relation of its lower border to the skin shifted about half an inch during respiration. A ridge which was thought to be formed by the transverse colon could be felt crossing the lower part of the swelling obliquely. The percussion note over the whole area of bulging was deficient, and where the prominence was most marked the note was quite dull. In the upward direction the dulness was continuous with that of the liver and heart: in the left axilla the percussion note was impaired as high as the sixth rib.

First Step of Operation—On the second day after admission Mr. Pollard operated. The abdomen was opened by an incision 6 inches in length in the left linea semilunaris. The stomach, the great omentum, and the transverse colon presented in the wound lying in front of the tumour, by which they were pushed forwards. The hand was passed into the abdomen, and the liver, kidneys, and spleen explored and found to be unconnected with the tumour. It was determined to open the cyst in the interval between the stomach and the transverse colon, and to do the operation in two stages. Some vessels were ligatured, and then the great omentum was divided tranversely between the stomach and the transverse colon, and the small bag of the peritoneum opened. The tumour was still covered by a layer of peritoneum. A strip of gauze was packed into the wound between the stomach and the transverse colon, and the abdominal wound above and below this spot was closed. A dressing of cyanide gauze and salicylic wool was applied.

Second Step.—After the operation the temperature rose gradually till the fifth day, when it reached 102°. On the sixth day the gauze plug was removed, and the cyst was tapped with a hydrocele trocar, and about 1,400 c.cm. of fluid were removed.

Characters of the Contents of the Cyst.—The fluid was turbid, of a dirty drab colour, alkaline reaction, and of a specific gravity of 1010. Microscopical examination showed the presence of leucocytes, some large granular cells, and some fat globules. A portion of the fluid was acidulated and boiled, with the result that an abundant precipitate of coagulated proteid was deposited. The filtrate gave the biuret reaction for peptones, and contained a small quantity of a copper-reducing substance. The action of the fluid on starch fibrin and fats was tested. It was found to possess active amylolytic properties; in its presence fats were emulsifie and fatty acids liberated; fibrin also was digested.

Third Step.—On the eighth day an anæsthetic was given, and after the removal of about 1,000 c.cm. of fluid by tapping the cyst was freely opened. Its wall was composed of dense fibrous tissue about $\frac{1}{16}$ inch in thickness. Some bleeding followed the incision into the cyst, and so the wound was packed with cyanide gauze. On the following day the gauze was removed; 500 c.cm. of dark-red, blood-stained fluid escaped, and a large drainage-tube was inserted. The temperature, which had been falling after the first tapping, rose again after the incision into the sac, but as soon as free drainage was established it fell rapidly, and subsequently remained normal.

After-History.—The man's general condition improved greatly after the evacuation of the cyst, and the farther history of the case is one of gradual recovery, uninterrupted except for a transient attack of jaundice some three weeks after the cyst was opened. This lasted two days only and was slight in degree. The discharge, which had been gradually lessening, increased in quantity with the onset of jaundice, and became tinged with green; it gave the reaction of bile-pigment with nitric acid. With the subsidence of the jaundice the discharge again diminished in amount, and changed to a clear, thin, serous fluid. Six weeks after the operation the man left the hospital; he was in very good health, but he was still wearing a tube 4 inches long.

In July, 1895, the patient was well-nourished and in excellent health, and had been at his work as signalman at Finsbury Park Railway Station for more than a year. He was still wearing a short tube, through which a small amount of clear discharge escaped. The tube was removed and in less than a week the sinus closed permanently. This patient was last seen in December, 1898. He said that since the operation he had had occasional attacks of burning pain at the epigastrium. The last attack was a year and nine months ago; since then he had enjoyed excellent health and had felt much better than he had done for several years previous to his operation. Nothing could be felt in the regions previously occupied by the cyst, and the patient had no discomfort there; the scar had yielded, and the patient was wearing a belt.

CASE II.

J. W., male, aged 56, was admitted to University College Hospital, under the care of Dr. Ringer, on January 17th, 1896, complaining of a tumour in his abdomen.

History.—On December 18th, 1895, he began to feel unwell. On the 22nd his abdomen felt distended, and he had slight abdominal pain, and felt short of breath. During the following night he awoke with severe abdominal pain, was repeatedly sick, and felt very short of breath. The attacks of pain and vomiting recurred, but were milder in character during the following days. On January 3rd a tumour was detected in the abdomen. During the illness there had been nothing abnormal in the characters of the urine, and the patient had not been jaundiced. The patient could not assign any cause for his illness. He had not had any injury to his abdomen. He had been losing flesh for two months. He had had frequent attacks of epistaxis, and four years ago "he broke a vessel" in the left side of his scrotum.

Condition on Admission.—The abdomen was greatly enlarged, and particularly so at the upper part. There was marked bulging in the epigastric and left hypochondriac regions. A large tumour could be felt in the abdomen filling the left upper quadrant of the cavity, and extending to the right nearly to the nipple line and downwards to just below the umbilicus. It extended upwards beneath the left costal margin, and gave rise to dulness on percussion in the left hypochondriac region, which reached to the level of the sixth intercostal space midway between the nipple and mid-axillary lines. Overlapping the right upper portion of the tumour in the epigastrium, and separating the dull area due to the liver from that due to the tumour, there was an area of resonance, the extent of which became considerably increased when the stomach was distended with gas. The surface of the tumour was smooth, and it had a tense elastic feel. There was well-marked pulsation in the tumour, but this was only communicated, for it disappeared when the patient rested on his hands and knees or turned on to his left side. The tumour moved very little if at all with respiration. It was slightly movable from side to side. It could be felt readily from the loin, but it did not fill the loin, and did not cause any bulging there. On percussing the tumour lightly an absolutely dull note was obtained, but on deep percussion there was some resonance in the note. A mass, which appeared to be the lower end of the right kidney, could be felt behind the tumour just below the last rib. When air was injected up the rectum a well-marked tympanitic note was obtainable in the left flank and at the upper part of the abdomen. This resonant area was behind the tumour. The urine occasionally contained a slight trace of albumen, but in other respects it was normal. The stools had a natural appearance. The patient was emphysematous, and expectorated slightly blood-stained mucus.

Operation. The patient was kept under observation for fourteen days before operation. During this time the tumour became tenser, but in other respects it did not change. The patient lost 5 pounds in weight. On the fourteenth day after admission Mr. Pollard operated. The abdomen was opened by a longitudinal incision, 4 inches in length, placed a little to the left of the middle line, and over the most prominent part of the tumour. The great omentum was exposed; it was adherent to the parietal peritoneum below and to the left, but above and to the right there were no adhesions, and there the stomach and the lower border of the liver were displayed. The great omentum was torn through and the cyst wall was exposed. The cyst was punctured with a hollow needle, and a brownish fluid withdrawn. After sufficient fluid had been withdrawn to render the cyst walls lax, an incision, about one inch long, was made into the cyst, and its contents were thoroughly removed; 4,600 c.cm. of fluid were withdrawn. The abdominal wound was sutured at each end, and the margins of the incision into the cyst were secured by several stitches to the margins of the central portion of the abdominal wound. The cyst occupied the smaller bag of the peritoneum, and from its interior the left kidney could be felt of normal size behind it.

Characters of the Contents of the Cyst.—The fluid removed from the cyst had a greenish-brown colour; its specific gravity was 1012; its reaction was alkaline; it contained half albumen. Its digestive properties were investigated by Dr. Vaughan Harley, who reported that it contained the three ferments—trypsin, steapsin, and amylopsin, of pancreatic juice. Some fluid which was withdrawn from the cyst on the fourth day after the operation had no digestive properties.

After-History.—The patient made an uninterrupted recovery. The highest temperature recorded was 100° F. on the day after the operation; with that exception it was normal. There was very little discharge, and the cavity contracted up rapidly. The patient got up on the sixteenth day after the operation, and he was discharged on the twenty-fifth. There was a tube 3 inches in length in the sinus, and the patient was told to keep it in as long as he could. He however removed it as soon as he left the hospital, and the wound healed in a few days. This patient was seen in December, 1898. He was quite well, and had not had any abdominal trouble since his operation. A small ventral hernia had protruded through an aperture in the centre of the scar at the place where the drainage tube had been. No recurrence of the cyst could be detected.

CASE III.

T.A.B., male, aged 36, was admitted to University College Hospital on January 30th, 1897, under the care of Dr. Roberts.

History.—Towards the end of October, 1896, he began to suffer from pain in his back. On November 11th he was seized with a sudden pain in his left hypochondrium, which spread up into his chest, and, as he says, "nearly choked him." He kept his bed for a month, during which time the severe pain subsided, but the pain in his back continued until about a fortnight previously. About two months before his admission a tumour was noticed in his abdomen.

Condition on Admission.—The patient was well-nourished and looked healthy. There was fulness in the epigastric and the left hypochondriac and lumbar regions. A large tumour could be felt in the left loin and extending thence upwards beneath the ribs, downwards to the level of the umbilicus and across the epigastric and upper part of the umbilical regions to 2 inches to the right of the middle line. Though occupying the left loin it did not really fill it and could not be made to bulge out the space between the last rib and the iliac crest. The lower end of the left kidney could be felt behind the tumour just below the last rib. The borders of the tumour, with the exception of the lower, were not well-defined. It moved a little with respiration, and on grasping the tumour with both hands, one in front and one in the loin, it could be moved a little from before back. It felt distinctly elastic. The percussion note was deficient in resonance, but not dull. The stomach resonance and the succussion splash could be detected in front of the tumour in the epigastric region, over the abdominal mass, but percussion over the chest elicited a definite dull note, extending in the nipple line to about the fifth rib. The urine contained a trace of albumen, but was otherwise normal. There was no excess of fat in the stools. Temperature normal.

Operation.—On February 27th, 1897, Mr. Pollard operated. The abdomen was opened by an incision 4 inches long, passing through the rectus about an inch to the left of the middle line. The hand was introduced, and the tumour explored. It was free from the kidney, and it was found to be presenting between the stomach and the transverse colon. The great omentum was torn through, and the wall of the cyst was exposed. A large aspirator needle was then plunged into the tumour, and over a quart of brownish fluid was withdrawn. The cyst was then freely opened and emptied. The margins of the incision were stitched to the skin, and the upper and lower parts of the abdominal wound were closed. A large tube was passed into the cyst, and a dressing of cyanide gauze and salicylic wool was applied.

Characters of the Contents of the Cyst.—The fluid removed had a dirty brown colour and a rather offensive smell, and it deposited a large sediment. It had a faintly alkaline reaction, and leucin drops and crystals were seen with the microscope. The fluid was examined by Dr. Vaughan Harley, and was found to possess all the properties of pancreatic juice.

After-History.—After the operation the temperature gradually rose, and reached 103° F. on the third day; it then fell, and reached the normal on the sixth day. The dressing was changed daily, and sometimes twice a day, as there was a copious, foul-smelling discharge. Many large black sloughs presented at the wound and were removed. The patient left the hospital six weeks after the operation. He had a small sinus then, but that healed in a fortnight. This patient was seen in December, 1898. He had had no further trouble from the cyst. The upper and lower parts of the abdominal wound were firmly united, but at the centre, where the drainage tube had been, there was a weak spot through which a hernia protruded. Nothing abnormal could be detected in the regions which had been previously occupied by the cyst. The patient's general health was good, and he had gained flesh.

Cysts of the pancreas have frequently developed after abdominal injuries, and it has been suggested that their formation is due to extravasation of blood, and subsequently of pancreatic secretion from the lacerated gland. There was no history of injury in any of my cases. In two of them the onset of the illness was marked by severe pain in the epigastrium and by frequent vomiting; in the other case the patient had a sudden severe pain, which he located in the left hypochondriac region, and which he stated spread up to his chest and nearly choked him. Severe epigastric pain has been frequently noted as an antecedent of pancreatic cysts. Two of the patients had lost a good deal of flesh, and one of them lost 5 lbs. in fourteen days. In all the cases the urine was free from sugar. In two there was an occasional trace of albumen. The stools appeared natural, and there was no excess of undigested fat. There was no jaundice before the operation in any of the cases. In one there was a slight attack after the operation.

All the three cases presented very similar clinical signs. In each there was a large tumour occupying the epigastric and left hypochondriac regions, and portions of the umbilical and left lumbar regions. The tumours moved very little with respiration, but they could be moved slightly from before backwards and from side to side between the two hands. In two of the cases stomach resonance could be obtained by light percussion in the epigastric region, although the tumours appeared to fill that region, and the area of stomach resonance was increased by distending the stomach with gas. In one case the percussion note was dull over the most prominent part of the tumour in the epigastric region, although at the operation this part of the tumour was found to be covered by the stomach. In this case the transverse colon could be traced over the lower part of the tumour. In one case there was good resonance in the flank behind the tumour, and this was increased by injecting air up the rectum. In each case the tumour gave rise to a dull area in the left hypochondriac region, and it also occupied the lumbar region, but it could not be made to fill the loin in the way that a hydronephrotic kidney either does or can be made to do. In two of the cases the lower end of the left kidney could be felt behind the tumour just below the last rib. The fact that the tumours moved very little, if at all, with respiration, and the presence in two cases of the stomach and in one of the transverse colon in front of the tumour showed that the tumours were not situated in the liver, and suggested that they were located either in the small bag of the peritoneum or in the retroperitoneal tissue. In one case distinct fluctuation and thrill could be elicited, and in all three the tense and elastic feel of the swellings suggested that they were cystic. In the first case the tumour was diagnosed as a cyst which was not connected with either the liver or the kidney, and it was thought to be either a pancreatic cyst, or a collection of fluid in the lesser bag of the peritoneum. The diagnosis of pancreatic cyst was made in each of the other two cases on the grounds stated above and on their resemblance to the first case; and in all three the diagnosis was verified after operation by an examination of the fluid removed from the cysts. In each case the fluid removed at the operation contained the three digestive ferments of pancreatic juice—amylopsin, trypsin, and steapsin; but after they had been drained for a few days the discharge from the cysts was found to have lost its digestive powers over starch and fibrin; its fat-splitting properties were not tested.

Pancreatic cysts have come forward in at least three different situations, namely, above the stomach, opposite the small omentum; between the stomach and the transverse colon, opposite the great omentum; and below the transverse colon, opposite the descending layer of the transverse mesocolon. The second of these positions is the most common.

In the first of my cases the cyst lay behind the stomach and the transverse colon, but it had not disturbed their relations; in the third case the cyst presented between the stomach and colon, and separated them from one another; and in the second the cyst presented below the stomach, and had displaced the transverse colon downwards considerably, but as there were adhesions between the omentum and the abdominal wall below, it was thought unwise to disturb them sufficiently to determine the exact position of the colon. In all three cases the cyst was covered in front by omentum. In the first and third cases the great omentum and the ascending layer of the meso-colon had to be divided to reach the cyst wall; in the second case the tissues covering the cyst wall were so blended together that their component parts could not be identified.

The practice of aspirating abdominal tumours either for the purpose of diagnosis or treatment merits strong condemnation. In some cases undoubtedly it may be safely done, but it is not possible to determine which by physical signs. In the first of these cases if the most prominent part of the tumour, which was dull on percussion, had been aspirated the needle would have passed through the stomach. In the second case the most prominent part of the tumour had separated the stomach and colon so widely that aspiration could in all probability have been done without injury to the abdominal viscera. In the third case it would have been a lucky chance if the needle did not transfix either the stomach or the colon.

In the first case, which was operated upon nearly five years

years ago, the operation *à deux temps* was performed, but in the other two the cysts were opened at once, after the greater part of their contents had been removed by aspiration. The margins of the openings into the cysts were stitched up to the skin, and the cysts were drained for some time. It was quite easy to prevent leakage into the peritoneum when the cysts were opened at once, and on other grounds that method is preferable to that *à deux temps*.

The method employed for the treatment of these cases was the simplest possible, and I think it was the best. The removal of the cysts has been recommended, and the operation has been performed successfully in some cases, but in several there has been a fatal termination. In my cases extirpation of the cysts would have involved most difficult and severe operations. And since it is now clear that drainage alone will suffice for the cure of pancreatic cysts, I think it is no longer justifiable to attempt their removal. A point more worthy of consideration is the route by which drainage of the cysts should be effected. The advisability of draining these cysts through a posterior incision has been urged, in order to avoid the necessity of making an adhesion between the cyst and the anterior abdominal wall. In the cases above reported no harm has resulted from the adhesions. If the lumbar operation could be performed safely without making an anterior incision at all, I should be in favour of it; but in all cases I should think it would be advisable to make an anterior incision in order to verify the diagnosis; and possibly, too, in order to determine the spot at which the cyst could be best reached by the posterior incision. The posterior route would certainly be a good one in cases where the cyst is small, and in which it would be difficult to bring it up to the anterior abdominal wall. It must not be forgotten that important structures and large blood vessels may be encountered in attempting to reach the cyst through an incision below the last rib, and that owing to want of space it might be difficult to recognise and avoid them. The only objection to anterior drainage which has been apparent in my cases is the occurrence of hernia at the spot where the presence of the tube prevented primary union of the abdominal wound.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

OPERATION FOR ELEPHANTIASIS OF THE VULVA.

THE interesting cases reported in the BRITISH MEDICAL JOURNAL by Dr. Renner and Surgeon-Captain Smith of operation for elephantiasis of the vulva, remind me of one I treated when practising in Jamaica in the year 1865.

A black girl, aged 25, complained that she had for many years suffered from great enlargement of the external genitals. On examination, I found the parts greatly hypertrophied, and presenting all the well-known appearances of elephantiasis. The right labium formed a large tumour 19½ inches in circumference, which, when the patient was standing, extended to within 2 inches of the knee. The left labium was the size of a large turnip. The nymphæ and prepuce of the clitoris were also hypertrophied but not to a great extent.

To avoid the risk of hæmorrhage in removing the diseased mass a local mechanic made for me a clamp composed of two parallel bars of lancewood united at one end by a hinge, and on the inside edge of each bar were placed several short sharp metallic pins, the object of these being to prevent the tissues slipping from the grasp of the clamp when they became slippery with blood.

The patient being under chloroform, the clamp was applied around the base of the right labium, as close to the pubes as possible, and tightly held. A slightly-curved incision on each side, about half an inch below the clamp, was made, and a few more strokes of the knife from above downwards separated the mass. Not more than 3 ounces of blood were lost, and this came entirely from the tumour, as, on wiping the cut surface controlled by the clamp with a sponge, it was completely white and bloodless. The pressure of the clamp was gradually relaxed, and one by one as they bled ten large vessels were tied. The cut edges were brought together by several sutures. The redundant tissues of the nymphæ and prepuce were pared away with only a slight amount of bleeding. After a few days the left labium was removed in a similar manner with the aid of the clamp, and five vessels were tied. The patient recovered without a bad symptom.

After a considerable amount of fluid had drained away and the weight thereby lessened, the diseased mass on the right side weighed 3 lbs. 10 ozs., that on the left side nearly ¾ lb. The effect of the clamp in preventing hæmorrhage was very marked, and the sharp pins acted admirably in preventing the slipping which must have occurred had they not been used. As a curious circumstance it may be mentioned that, three years previous to my seeing her—and when, as she assured me, the parts were exactly in the same condition—she was delivered of a full-term child after an easy labour.

Eastbourne. IZETT ANDERSON, M.D.Edin.

THE TREATMENT OF PNEUMONIA BY IRON PERCHLORIDE.

I CAN add my testimony to that of Dr. King in the BRITISH MEDICAL JOURNAL of November 12th, 1898, as to the great value of large doses of perchloride of iron in the treatment of pneumonia—a remedy far more effective here than in diphtheria or erysipelas. I have to thank a correspondent who some four years ago drew attention to it in the JOURNAL.

The late Sir Andrew Clark, in the discussion in London on the treatment of this disease, spoke very highly of it as appearing to have the effect of preventing consolidation. I have, however, of late combined large doses of digitalis, and consider the results eminently satisfactory in comparison with the usual treatment by expectorants. It is not merely an empirical, but a scientific, remedy. With children it is not so successful, because the administering of large doses of steel is so apt to cause vomiting. As to the exhibition of stimulants, I am cautious, believing that many a patient is poisoned by alcohol.

Ballarat, Victoria. A. TEEVAN, M.R.C.S.Eng., etc.

A CASE OF OBSTINATE HICCOUGH.

A PATIENT aged 50 years, of a highly nervous temperament, suffering from hæmorrhoids had them replaced under gas and ether. About two hours afterwards he commenced to hiccough. Pressure on the epigastric region checked it for a short time, but it recommenced and continued practically all night, sleeping or waking, the spasm being regular in character. Crushed ice was given by the mouth, without effect. Bromide of ammonia and soda, half drachm of each, with 20 grains of chloral, merely caused the hiccough to be slightly less violent during sleep. Mustard to the epigastrium was tried without any good result; neither had calomel (4 gr.) followed by a saline draught.

After consultation injections of morphine were given in quarter-grain, and later in half-grain, doses. These merely gave slight relief during the sleep which followed. Inhalations of ammonia were next tried, but with equal want of success. Laughing temporarily arrested it.

On the night of the ninth day I prescribed 2 minims of a 1 per cent. solution of nitroglycerine, with a drachm of the spirit of chloroform in half an ounce of water, to be given every hour. The first dose was taken at 9 P.M. The hiccough shortly began to diminish in frequency and violence, and at 2 A.M. finally ceased.

Whether this satisfactory condition would have resulted from natural causes it is difficult to say, but apparently the medicine last used produced the good effect, and as such cases are very troublesome, both to the patient and his medical attendant, I would suggest the above as a possible remedy.

R. W. S. CHRISTMAS, L.R.C.P., M.R.C.S.

Streatham, S.W.

THE new medical faculty established in the University of Odessa will be formally opened in August next.

MEDICAL GRADUATION IN RUSSIA.—During 1898 the degree of Doctor of Medicine was conferred by the University of Moscow on fourteen, by the University of Charkoff on five, and by the University of Kieff on three candidates. The number of students of medicine in the three universities severally was on January 1st, 1899, as follows: Moscow, 1,294; Kieff, 895; Charkoff, 709.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

GENERAL HOSPITAL, NOTTINGHAM.

PARIETAL OSTEOMA TREATED BY TREPHINING: IMPROVEMENT.

(By HENRY HANDFORD, M.D., Physician to the Hospital.)

THE patient—who was shown to the Nottingham Medico-Chirurgical Society on February 1st, 1899—a young woman, aged 19, first came to the hospital on September 17th, 1895, and was admitted ten days later. No history of syphilis in the parents could be obtained, nor was there any sign of acquired syphilis in the patient. She had suffered no injury, and had no serious illness until the present, which commenced eight months before admission. She then woke up one morning, to find weakness of the left side. There was no affection of speech and no loss of sensation, though she had some tingling in the left leg. She could walk, dragging the left leg, but could not lift things with the left arm. The left knee-jerk was much exaggerated, and a wrist-jerk could be obtained on the left side but not on the right. She had some frontal headache and occasional vomiting. The pupils were equal. There was no loss of sight, but marked optic neuritis was found in both eyes. Three weeks later she was unable to read D 6 at 15 feet with either eye. The left visual field was slightly diminished but not the right. There was no localised tenderness of the skull to percussion nor any irregularity of contour.

By November 11th the vomiting had ceased, but she still complained of some headache. The optic neuritis was slowly progressing; otherwise she had greatly improved. The temperature had always been normal. The paralysis had greatly diminished, so that it was sometimes difficult to detect. She was very childish and emotional, and at times appeared mentally deficient. The treatment consisted of iodide of potassium in moderate doses.

With so much general improvement, it was not considered wise to do an exploratory operation, especially as it was thought the tumour might be near the base of the brain.

On January 11th, 1896, she was readmitted, but there was no material change except that the optic discs were atrophic. She could walk well, there was but little headache, and the vomiting had not returned. The weakness of the left side persisted in some degree.

In November, 1896, she came under the care of Dr. Laws at the Eye Infirmary, and I am indebted to him for the following account of her vision at that time.

Right eye: Vision = $\frac{6}{9}$; visual field extremely contracted, not extending more than 2° or 3° from the fixation point.

Left eye: No perception of light.

Ophthalmoscopic examination: Subsiding optic neuritis in each eye, passing on to atrophy, more advanced in the left than right. She has hallucinations of vision in the left half of the visual fields (sees people and animals close to her and larger than natural). There is also occasional twitching beginning with the left angle of the mouth, passing to the left eye, and then to the left hand and arm.

On June 2nd, 1898, the patient was admitted for the third time. She was able to see her way about, but could not read or sew. She could walk without much difficulty; the left knee-jerk was very greatly exaggerated, and the right to a less extent. The weakness of the left arm had somewhat increased, there was some stiffness of the fingers, and in consequence she was quite unable to feed herself with the left hand. For several months past she has been sick every morning, and has suffered much from pain on the right side of the head shooting over the eyes.

A lump was first noticed on the right side of the head about a year ago, and has gradually increased. It was now about the size and shape of half a duck's head divided longitudinally. It commenced at the posterior border of the right frontal bone, and extended backwards over the anterior two-thirds of the parietal bone. It was smooth and regular on the surface and underneath the scalp, which moved freely over it. It was firm and resisting to pressure, which caused great pain.

As regards diagnosis, the long history of cerebral symptoms before any change in the bone was apparent suggested a cerebral tumour bulging the cranial bones outwards; but the extreme pain and tenderness of the tumour led to the suspicion of a growth of the bone itself. It was certainly not an ordinary syphilitic node or gumma; but whether syphilis was the primary cause of the growth or not must remain uncertain, as both the history and the action of iodide of potassium were inconclusive.

On June 23rd the patient was transferred to the surgical wards for operation. My colleague, Mr. Anderson, trephined over the site of the tumour, and remove a disc of bone which proved to be about 1 inch thick. The opening was enlarged to about 2 inches in diameter, the bone remaining at the margins being only moderately thickened. There was no sharply defined tumour, but a diffused thickening shading away towards the periphery. The bone had projected as much internally as externally, so that upon removing the bone the brain and membranes were depressed. The surface of the brain appeared otherwise normal, and pulsated in the usual way. No indication of any cerebral growth could be discovered. The disc of bone has unfortunately been lost; but the general character of the change was thickening and induration of the diploë. It bore no resemblance to an ivory exostosis. It differed from the general thickening of the skull occasionally found *post mortem* and attributed to syphilis, in its strictly limited extent, and consequent marked projection from the surface.

Convalescence was rapid and uninterrupted. The headache and sickness have not returned. The patient thinks her sight is better, and certainly her mental condition is much brighter. She says the left arm and leg are both stronger than before the operation. She can now hold a fork in the left hand and feed herself, which she has been unable to do for three years. The knee-jerks are unaltered. On the site of the bony growth is now a soft fluctuating swelling over the trephine opening, rather less in area, but more prominent, and pulsating synchronously with the carotids.

On September 26th, 1898—that is, three months after the operation—Dr. Laws kindly examined the eyes again. His report is: Right eye, V. = $\frac{6}{9}$ and $\frac{6}{6}$ for one letter; left eye no perception of light. Complete post-papillitic atrophy of both discs, with some diminution of the arteries and tortuosity of the veins. Fields: A very small central field in right, not more than 2° or 3° from the fixation point.

From this it will be seen that central vision is quite acute in the right eye, though the field is very small. This condition is almost exactly the same as in November, 1896. Before the operation she did not read at all, and had not done so since the early part of her illness. Since the operation she has read several books for pleasure, and she can also assist her mother in lace mending. The power of reading, which has returned, appears not to be due to any improvement in the eye itself, but rather to the manifest general improvement in brain power since the pressure has been relieved. The bony thickening was hardly far enough back to press directly upon the angular gyrus; and the great benefit derived from the operation must be attributed to the relief of general tension.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

J. F. PAYNE, M.D., President, in the Chair.

Tuesday, March 7th, 1899.

RESUMED DISCUSSION ON PSEUDO-TUBERCULOSIS.

PROFESSOR JOHN MACFADYEAN exhibited a series of lantern slides illustrating some of the conditions in cattle classed as pseudo-tuberculosis. He observed that true tuberculous lesions of the pleura and peritoneum in bovines commonly presented themselves not as tubercles properly so called, but formations which tended to become pedunculated; again, in tuberculous mastitis in the cow tuberculosis presented itself as a diffuse fibrosis which in different degrees underwent caseation. As to the lesions simulating those of true tubercle, in the verminous pseudo-tubercle seen so commonly in the sheep's lung the centre might exhibit caseous change, and the periphery giant cells; the parasites causing these lesions were not all identical, and the species of some were undetermined. The speaker had isolated a bacillus from an affection seen at times in the ox, and leading to a so-called scrofulous swelling and abscess of the neck; the same organism also occurred in nodular lesions seen at times on the septum nasi in sheep, which, though suggestive of glanders, were really not due to this cause. He had failed, however, to reproduce the disease by inoculation with the unnamed bacillus in question, and equally failed on using the natural material for the same purpose. Again, "bacterial necrosis" of the liver in animals presented a certain resemblance to true tubercle, the lesions undergoing a firm caseation, and later on becoming extensively invaded with leucocytes. The "necrosis bacillus" causing such was found in the soil. He had, on one occasion, found a mould mycelium in a pulmonary nodule in the horse. The speaker deprecated the use of the term "pseudo-tuberculosis;" pulmonary glanders in the horse was more like "tubercle" than tuberculosis itself in the same situation in the horse. Although tuberculosis was not distinguishable histologically with absolute certainty, nevertheless experience rendered the diagnosis of the disease in cattle almost certain even to the naked eye. The demonstration microscopically of the presence of the bacillus was not always easy, and this test, if relied upon alone, might lead to fallacy. He had twice in milk found bacilli resisting decolorisation, like those of tubercle, but the thickness of which showed that they were not the latter.

Mr. A. FOULERTON remarked upon the likeness of "tubercle" arising from the action of different micro-organisms. More particularly the anatomical lesions of the human lung seen in aspergillary mycosis were indistinguishable by the naked eye and the microscope from those of true tubercle. He thought that pseudo-tubercle bacilli must be uncommon. The speaker exhibited specimens illustrating granulomatous lesions produced experimentally by the injection of a pathogenic yeast. Some such—as, for example, the caseous foci arising in the lungs of the rat—were in general characters indistinguishable from tubercle. The yeast cells in the tissues might present a capsule as described by Roncali.

Mr. W. C. PAKES agreed with Professor Sims Woodhead that the term "pseudo-tuberculosis" was one which should now fall into disuse. A great amount of confusion always arose when the term "pseudo" was applied, as was evidenced by the pseudo-diphtheria bacillus. When, further, such conditions as pseudo-rickets, pseudo-erysipelas, and pseudo-leprosy were described, the confusion became still worse. He thought that it would be preferable to attach a person's name to a condition until its pathology was determined, rather than prefix the term "pseudo" to a condition which merely bore a superficial resemblance to one of which the pathology was known. Aspergillo-pneumonomycosis was an interesting affection, and one which had been emancipated from its connection with tuberculosis. In this disease the pathological lesions very closely resembled those produced by the B. tuberculosis. Aspergillus fumigatus could induce lesions resembling both the acute and chronic lesion resulting from the bacillus tuberculosis. He had come to the conclusion that there were more cases of aspergillosis than was generally imagined, and suspected that some of the cases of supposed phthisis which recovered were due to this cause. It was not very rare to find moulds in fresh sputum, and on more than one occasion he had been struck with the large number of these organisms. On one occasion he had made cultivations, and found that the culture was an almost pure one of aspergillus fumigatus. The remark of Professor Sidney Martin that tubercle inoculated in (say) the groin of a guinea-pig was always followed by infection of the glands and lymph channels was, in his opinion, quite sufficient reason why tubercles found in the liver, omentum, etc., after inoculation, without any glandular disease, should not be called pseudo-tuberculosis. He had recently seen such a case which to the naked eye presented omental "tubercles." On section, however, small breaking-down cavities were found which contained a bacillus readily staining with carbol methylene blue.

Dr. LAZARUS-BARLOW did not think that the term "pseudo-tuberculosis" should be altogether discarded, as there was a certain residuum of cases in which it might still be of use. In diabetes there occurred pulmonary lesions closely resembling those of tubercle. He cited a case of caseous lesion of the lungs, in which an extensive mycelium was found in these organs; after many examinations he had found, however, tubercle bacilli present as well.

Dr. F. WETHERED referred to the lesions induced by the pseudo-tubercle bacillus; after experimental infection the different organs became studded with tubercles, a local abscess forming at the site of inoculation. In the sputum of what clinically appeared as advanced cases of phthisis he had at times failed to find tubercle bacilli; possibly the lesions present were aspergillary.

Professor WOODS HUTCHINSON also thought that "pseudo-tuberculosis" was a useful expression. In animals the true form was vastly the more common; and when the distribution of the verminous lesions, for example, was studied, it would be found to differ widely from those of the true disease. The animal, moreover, did not suffer in general health.

The PRESIDENT pointed out that besides micro-organisms various mechanical causes might produce "tubercle." In "ophthalmia nodosa" the small "tubercles" in the conjunctiva arose from the hairs of certain caterpillars reaching the part; the hairs were chemically irritating. But the hairs of the mouse would lead to similar productions if inserted into the same tissues. It was not surprising, therefore, that various kinds of living organisms produced the anatomical lesions classed as tubercles. In 1871 he had described a case of anatomical tubercle of the peritoneum and liver in man, which he did not at that time regard as true tubercle.

CARD SPECIMENS.

Mr. A. FOULERTON: Myoma of the Œsophagus.—Dr. LAZARUS-BARLOW: (1) Aneurysm of Splenic Artery; (2) Traumatic Rupture of the Trachea.—Professor J. MACFADYEAN: Congenital Tuberculosis in the Calf.—Dr. H. D. ROLLESTON: Aneurysm of the Splenic Artery; Myoma of Œsophagus; Myxoma of Thigh; Gastric Ulcer (Albuminuric) in Granular Kidney.

OBSTETRICAL SOCIETY OF LONDON.

ALBAN DORAN, F.R.C.S., President, in the Chair.

Wednesday, March 1st, 1899.

PRESIDENT'S ADDRESS.

THE PRESIDENT began his address by showing how the Obstetrical Society of London had from its earliest days taken the deepest interest in gynæcology, now a well-established speciality, which had rendered important services to general surgery. Uterine therapeutics and minor gynæcology were associated with abuses, but so were medicine and surgery. They were indispensable and must be well understood, because, as in the case of the abscess knife and the catheter, "minor" proceedings with the curette, the sound, and other special instruments might cause grave damage if unskilfully performed. The President specially dwelt on the judgment of gynæcological surgery on general surgical grounds, and insisted that good operating was not always good surgery. Plastic surgery had made great advances since 1859. Vaginal hysterectomy for cancer seemed to be good surgery as compared with the cancer practice of the general surgeon. Ovariotomy proved the key to modern peritoneal surgery. Drainage and flushing of the peritoneum were intimately associated with it; the latter, in turn, was closely related to transfusion as now understood. In operations for diseases of the appendages due to inflammation, a skilful and successful operation might be decidedly bad surgery, or else questionable surgery, or else very good surgery. Exploratory incision was often needed in chronic cases; sometimes it was sufficient to liberate the ovaries and tubes from the painful bondage of adhesions; sometimes only one tube and ovary needed ablation. On the other hand, bilateral suppuration of obstructed tubes of course demanded removal of both. Bad after-results chiefly arose from the pedicle, the tissues of which were often unhealthy, and not from the uterus. In reporting a series of these cases a long after-history was needed. Foreign authorities were very careless about this matter. Thus one operator published tables where eight operations were performed within six weeks of the reading of the paper. They seemed also far too ready to remove the uterus with the diseased appendages. One operator, living in a relatively small capital, had performed this operation over five hundred times in a very few years; his mortality was low, but no reliable after-histories were given. Recovery in this class of operation was, for obvious reasons, no proof that the removal of the parts was necessary, whilst in bad cases, where the operation was good surgery, the results were not always entirely satisfactory. The removal of ovaries for neuroses was almost universally condemned; Weir Mitchell had categorically declared that the whole principle of such a proceeding was wrong. The surgery of uterine fibroids had greatly progressed, but much more had to be learnt. Fibroids of the broad ligament needed early removal, so did uterine fibroid in a very young subject, or in a case near the menopause where there was rapid increase of growth and manifest softening. When in doubt the surgeon should always wait; bleeding and slowly-growing fibroids allowed of watching and palliatives. Speculative operations, where the fibroid was small and caused neither severe hæmorrhage nor pressure symptoms, were not good surgery. In the field of uterine displacements there were many abuses. A long series of operations had been devised to fix the uterus up in its right place or to support it from below. The variations in opinion and practice showed that much remained to be settled. Even the pathology of displacements was yet obscure, nor did certain operations overcome the essential morbid condition associated with a flexion or version. Hysteropexy in well-selected cases was beneficial, but, as in operations for chronic disease of the appendages, long after-histories were needed, but were not always furnished in papers written by operators. Surgery must respectfully follow clinical exploration, otherwise not only the surgeon's knife but his power of diagnosis would be blunted by too many exploratory incisions. Patient clinical research was the sheet anchor of the gynæcological surgeon, and surgical proceedings were only justified when clinical research had proved that there was something which ought to be removed or rectified by an operation.

CANCER OF FALLOPIAN TUBE.

Dr. **HUBERT ROBERTS** read a paper on a second case of primary carcinoma of the Fallopian tube. The case occurred in a married lady, aged 60, never pregnant. No history of pelvic trouble. The menopause occurred at the age of 50. She was perfectly well up to June 27th, 1897, when she first noticed a cherry-coloured watery discharge, which lasted three days. Nothing was noted on vaginal examination. July 3rd, 1897: Discharge recurred, and was more profuse, but of the same character, lasting two days. September, 1897: Very severe abdominal pain; this was followed by another rush of water fluid. Repeated pelvic and abdominal examinations during the latter months of 1897 revealed no tumour. In the spring of 1898 a fourth attack of watery discharge and severe pain. April 3rd, 1898: A swelling was first discovered behind and to the left of the uterus. Subsequent examination at the end of April confirmed the presence of a tumour which had grown rapidly, and the preliminary diagnosis of a malignant ovarian tumour was made. Operation May 5th, 1898: Abdominal section. Tumour proved to be an enlarged Fallopian tube filled with growth. The operation was one of great difficulty owing to many adhesions, and the tube ruptured during the operation. The ovary on the same side was cystic, but not infiltrated with growth. The appendages on the other side were healthy. There was no secondary growth or infiltration of the pelvis at the time of operation, nor any free peritoneal fluid. The patient recovered from the operation. In November, 1898, a favourable report was received of the patient's condition; but early in January, 1899, she was not so well, and examination proved that there was already well-marked recurrence of malignant growth in the pelvis.

The **PRESIDENT** remarked that carcinoma of the tube certainly arose from papilloma such as occasionally developed in an old hydrosalpinx. Dr. Roberts's case seems to be of that type. In the tables which he himself had prepared,[1] the patient was 60 years of age in 2 out of a total of 25 cases, and between 58 and 59 in two more. He thought Doléris was correct in distinguishing an endosalpingitic papilloma, and had himself demonstrated the relation of papilloma to inflammation so long ago as 1879, and noted the malignant degeneration of papilloma in 1888. He had recently come across a case of papilloma of the tube associated with malignant tumour of the broad ligament. He doubted whether cancer had ever been seen to develop in a previously healthy tube.

Dr. **CULLINGWORTH** said the question as to the connection between papilloma and carcinoma could scarcely be settled until an opportunity occurred of examining a carcinomatous tube at an early stage. Although he had had a fairly large experience of tubal affections, he had not as yet happened to meet with a single example.

Dr. **AMAND ROUTH** alluded to a case of primary carcinoma of the Fallopian tube which he had reported to that Society. He doubted whether these cases began with papilloma, the microscopic sections showing nothing in common with the forms of malignant papilloma which he had seen invading the uterine wall.

Dr. **ROBERTS** said he had not been able to find any case recorded below the age of 36. He believed the pain to be due to the distension of the tube by fluid which, when the tension rose above a certain limit, escaped as a cherry-coloured discharge. Dr. Roberts thought it quite possible that the case started in an old hydrosalpinx, though there was nothing in the previous history to show this. It was very difficult, if not impossible, to distinguish between papilloma and carcinoma of the tube.

SPECIMENS.

The following were shown: Dr. **SMYLY** (Dublin): Three Myomatous Uteri, removed *per vaginam* by Doyen's method.—Mr. **BLAND SUTTON**: (1) A Ruptured Ovarian Tumour; (2) An Acardiac Calf.—Mr. **A. LIONEL SMITH**: An Infant showing Diffused Subcutaneous Induration.—Dr. **DAKIN**: A Fibromyoma, spontaneously enucleated during labour.

HARVEIAN SOCIETY OF LONDON.

HENRY JULER, F.R.C.S., President, in the Chair.

Thursday, March 2nd, 1899.

VANISHING TUMOURS.

MR. **D'ARCY POWER** read a paper on this subject. He applied the term to swellings which disappeared after such slight surgical operations as incision, puncture, or even simple exposure. Such tumours were not to be confounded with phantom tumours, for they were real swellings, more often innocent, but sometimes malignant in nature. Mr. Power proceeded to quote cases of vanishing tumours which had occurred in his own experience. One was in a boy who had a large cystic lymphangioma of the neck, which disappeared absolutely some months after a part had been removed. A second case was that of a girl who had a greatly-enlarged liver with a hectic temperature. The temperature became normal and the liver began to decrease in size directly after the abdomen had been opened and the liver had been explored with a trocar and cannula to ascertain whether it contained an abscess. A third case occurred in a man, aged 21, with a large and seemingly inoperable tumour situated between the umbilicus and the pubes, and apparently fixed to the pubes. Three months after the tumour had been exposed it had completely disappeared and the patient had gained a stone and a-half in weight. The fourth case occurred in a tailor, aged 54, who had a well-defined tumour, shown by abdominal section to be adherent to the external abdominal wall, to the stomach and duodenum, and to the under surface of the liver above. The gall bladder seemed to be quite surrounded by the new growth, which thus proved quite irremovable, and was thought to be malignant. He was examined four months after the operation by many of the surgeons at St. Bartholomew's Hospital, who were agreed that no tumour could then be felt in his abdomen. A few months later he died in another hospital with all the symptoms of malignant disease in or near the head of his pancreas. A fifth case was that of a man admitted to the Royal Free Hospital, where he was seen by Mr. James Berry, who opened his abdomen to explore a rounded and hard lump as big as a fist, situated in the region of the pylorus. Some adhesions were broken down, the man made an excellent recovery, and nothing more was seen or heard of the tumour. Mr. Bryant had also described cases of vanishing cysts which he had seen in the breasts of women. Mr. D'Arcy Power considered that these cases of vanishing tumour were in all probability innocent in nature and inflammatory in origin. But his sixth case was on the borderline between an innocent and a malignant growth. It occurred in a man, aged 24, who had received a blow on the top of his head from the flywheel of an engine. A few months after the injury a tumour appeared at the seat of injury. It grew until it attained the size of a sparrow's egg, and then it disappeared. Six or eight tumours subsequently appeared in different parts of the head, and then diminished in size. One of the tumours, however, continued to grow until it attained a size of 10 inches, when it was removed. Microscopic examination showed it to be a fibrosarcoma and Mr. Morrant Baker, who had charge of the case, gave it the name of "withering sarcoma." Mr. Power also drew attention to the fact that carcinomatous ulcers of very considerable size had been known to heal, sometimes only superficially, the cancerous process continuing beneath the scar, but in some few cases the repair had been complete and permanent. Instances of atrophying scirrhus, too, were not very uncommon in old and spare people. He also alluded to another class of vanishing tumours: cancers which disappeared after the removal of an ovary; hypertrophied prostates which became smaller when a testicle had been cut out or when the vas deferens had been divided, and adenomata of the breast which vanished as a result of pregnancy and lactation. The cause of the disappearance in these cases was to be looked for in the intimate physiological connection existing between the organ removed and the part diseased. Mr. Power considered that many interesting points for discussion arose in connection with vanishing tumours. He desired to know what would have happened if no operation had been performed. The cystic tumour in the first case would probably have shrivelled in the course of eight or ten years, when it might have become a wen or it might have disappeared entirely. The enlarged liver would have suppurated, and a similar fate seemed to have been imminent in the cases of abdominal swelling. It was of extreme interest from a purely pathological standpoint to recognise that such apparently causeless swellings might appear and disappear in the body. It indicated that the connective tissue cells of the part were in a very unstable condition, and it was easy to understand that, given the necessary predisposition and the exciting cause, such a swelling might determine the position of a malignant growth. The effect of surgical interference in these cases seemed to be identical with that produced by the incision of any inflammatory swelling. Tension was relieved, and a series of complicated physiological changes were set up which ended in resolution, changes which seemed to be the direct outcome of alterations in the trophic and vasomotor functions. The older surgeons set these changes in action by bleeding; their successors with improved surgical methods had ceased to interfere with the blood pressure generally, and were content to modify it locally. Mr. Power concluded by deprecating any attempt to remove a tumour locally where it was in any way possible to eradicate it wholly. Modern surgery, based as it was upon pathology, taught most emphatically that tumours should be removed as completely and as early as possible, and that the more a swelling was thought to be malignant, the earlier and more complete should be the removal. But it had happened in these cases of vanishing tumours that from one cause or another so complete a removal was impossible, and yet by accident or good luck, coupled with some unusual modification of the morbid process, the result obtained was most satisfactory, though the method adopted was in the highest degree unsatisfactory if one looked to the means rather than to the end.

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[1] *Obst. Transactions*, 1898.

The **PRESIDENT** referred to the case of a woman who had been under his care in whom both eyeballs were protruding, and there was extensive anæsthesia of the forehead, and almost complete blindness. In each orbit an indurated mass could be felt at the outer canthus and below the globe. The growths were believed to be malignant, and a portion of one of one of them which was removed for microscopic examination presented appearances which were regarded as sarcomatous rather than gummatous. After a few months' treatment with mercury and iodide of potassium, however, the tumours entirely disappeared. They were in all probability gummata.

Mr. **ALBAN DORAN** suspected that Morrant Baker's "withering sarcoma" of the scalp was akin to the fibromas of the abdominal wall, a large specimen of which he had himself removed from the sheath of the rectus that very day. They caused danger by their size, but sometimes disappeared spontaneously. Reed of Cincinnati had recorded one case where the operator failed to remove the growth, the skin wound was closed, and the tumour, a fibroma, disappeared. Mr. Doran knew of a case where a patient refused operation for what seemed to be a fibroma of the abdominal wall. She became pregnant and the tumour vanished. The majority of cases of vanishing tumours in the abdominal wall were simply cases of tuberculous peritonitis. When a "cyst" was diagnosed, and a circumscribed collection of serum bounded by intestine bearing old tuberculous deposit was laid open, it was apt to be mistaken for a cyst of the urachus, or for a malignant ovarian tumour with metastatic deposits. Even after long experience the surgeon often found such a case very puzzling. But it nearly always got well. Mr. Doran had seen perfect cure follow incision in a large number of cases where he had designedly incised the peritoneum for the relief of tuberculous peritonitis, and also in two instances where he suspected the dense deposit in the parietal peritoneum to be malignant. He had never known improvement to follow exploratory incision where real sarcoma or carcinoma was detected.

Dr. **COCK** mentioned the case of a widow lady, aged 71, who was feverish. On examination a hard mass was found reaching from the right pelvic wall to the lower border of the liver, easily defined from side to side, not doughy to the touch, and extremely tender. The uterus was partly fixed, and there was a bloody discharge. Purgatives had no effect, nor were there any symptoms of fæcal accumulation. Consultants were of opinion that the mass was carcinomatous. After an illness of ten weeks the patient became better, the mass shrank, and at the end of a six months' holiday at the seaside she returned quite well with no tumour, and ultimately died five years after from bronchitis.

Mr. **EASTES** referred to the large number of vanishing tumours which were associated with various parts of the organs of generation (male and female), including the female breast. A striking instance was furnished by fibromata of the uterus occurring in middle life. He had seen a uterine fibroid (as large as a pregnant uterus towards the end of gestation) disappear almost entirely within a year after cessation of menstruation, and the patient recover health, though previously she had almost died on several occasions from excessive "monthly floodings." But the vanishing tumours most often seen in general practice were probably fæcal accumulations in the colon. One patient, who found aperient remedies always produce pain and consequently neglected them, had twice within the last two years allowed such an accumulation to occur, and passed through a severe illness before she was relieved. She probably had adhesions; at any rate there was a history of peritonitis in childhood, with constipation ever since. During each of these later illnesses the cylindrical accumulation in the ascending colon, measuring 6 inches in length and 4 inches in diameter, had occupied a fortnight in vanishing, and on several days in that period some ten or twelve distinct, hard, almost spherical masses of fæces were removed by finger or large enemata from the rectum. The medicine which had accomplished the removal in the last illness was a pill composed of resin podophyll. and ext. belladonnæ, an eighth of a grain of each in each pill, given once, twice, or thrice daily, according to the necessities of the case.

Dr. **LEONARD GUTHRIE** believed that there were well-authenticated instances of the spontaneous disappearance of tumours both malignant and benign. The causation of this was of greater interest than the occurrence. Mr. Alban Doran had mentioned a case in which a large abdominal tumour disappeared after ligature of its principal vessels. Perhaps this was the clue to the whole mystery. Tumours were dependent on their blood supply for their growth. If the blood were cut off the tumour would waste. In most cases this result could not be effected by surgery, but possibly the vasomotor system might at times cause local constriction of vessels, and thus retard the growth of tumours. The phenomena of Raynaud's disease showed that vasomotor action was capable of producing local gangrene. Possibly the success which occasionally attended the treatment of cancer by drugs depended on their action as vascular astringents. In the last century cancerous breasts were treated by the application of toads, which were supposed to suck the venom from the ulcers. But Dr. Lauder Brunton had compared the action of phrynin, the active principle of the secretion of toad's skin, to that of digitalis and erythrophlœin, which were powerful vascular astringents. Phrynin had, moreover, a benumbing action on sensory nerves like aconite. Hence, although the remedy seemed absurd, it might possibly have been beneficial in some cases. A similar explanation might be offered of the effects of certain drugs vaunted as cures for cancer—for instance, carbonate of lime, chian turpentine, and cinnamon, which latter contained tannic acid. Finally, the success which sometimes followed oöphorectomy for inoperable cancer of the breast was possibly due to the profound effect produced by that operation on the whole of the sympathetic system. Perhaps in such cases a local dilatation of vessels in a cancerous region gave place to a local constriction. The effects of strong mental emotion on the sympathetic should not be forgotten. This might account for the miraculous cures of cancer and tumours at Lourdes and elsewhere. But all methods of treatment based on these assumptions were at best uncertain and their effects but temporary; they were only available in inoperable cases.

Dr. **WASHBOURN** mentioned some observations which had been made by Mr. Bellingham Smith and himself upon infective sarcomata occurring in dogs, and which they had published in the Pathological Society's *Transactions* and in the BRITISH MEDICAL JOURNAL. The sarcomata were originally situated in the mucous membrane of the vagina and penis, and were transmitted from animal to animal during the act of coitus. They consisted of round cells with an alveolated arrangement, and were similar in structure to the round-celled alveolar sarcomata met with in the human subject. By inoculation they would be transmitted to the subcutaneous tissue of dogs. At the end of two or three months the resulting tumours reached their maximum development, forming lobulated masses about 2 inches in diameter. They then took one of two courses: either they became disseminated, secondary nodules appearing in the internal organs causing the death of the animal, or they disappeared. In the latter case they either slowly dwindled away, being replaced by fibrous tissue, or they disappeared by a process of ulceration. A most interesting point was the fact that after the tumour had disappeared the animals were absolutely immune to subsequent inoculating. Up to the present time no micro-organisms bearing a causal relationship to the tumour had been discovered.

Mr. **D'ARCY POWER** replied.

A NEW FORM OF ETHER INHALER.

Mr. **BELLAMY GARDNER** showed an improved ether inhaler which he had devised. Its advantages were said to be: (1) A breathing channel 2 inches in diameter; (2) a reservoir for 6 ounces of ether, the quantity required being emitted upon a sponge by simply turning a tap; (3) compactness and portability in the filled condition. He had used it in over 700 cases during the past two and a-half years, and recommended it as combining the advantages of Clover's and Ormsby's inhalers.

In answer to questions by Dr. COCK and Mr. EASTES, Mr. **GARDNER** stated that the supply of ether could be accurately regulated, and that with ordinary care there was no fear of any fluid ether entering the face-piece.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

Professor C. J. WRIGHT, Vice-President, in the Chair.

Friday, February 17th, 1899.

MALIGNANT DISEASE OF ŒSOPHAGUS.

DR. POWELL WHITE read a short communication on malignant disease of the œsophagus and showed the following specimens: (1) Sarcoma of Pharynx; the primary growth was a small ulcer in the right sinus pyriformis which did not invade surrounding structures; the glands in the right side of the neck formed a mass half as big as the patient's head; there were metastatic deposits in the liver, lungs, and heart; (2) Lymphosarcoma of Mediastinum Invading Heart an Œsophagus; (3) Cystic Kidneys in an Adult; the left weighed 4 lbs. 14 ozs. and the right 2 lbs. 7 ozs.; he thought that the origin was a congenital malformation; (4) Multiple Diverticula of the Small Intestine from the same patient as the cystic kidneys; there were about 30 diverticula situated along the mesenteric border of the small intestine; they were formed by a protrusion of the mucous membrane through a deficiency in the muscular coat; (5) Spheroidal-celled Carcinoma of the Upper End of the Œsophagus with a Metastatic Growth in the Stomach.

SPECIMENS.

Dr. **BEDFORD PIERCE** (York) showed the following specimens: (1) Intracapsular Fracture of Femur in a male aged 64, the line of fracture being immediately below the articular surface of the head of the bone; in this case there was no shortening until some weeks after the injury; (2) repair of Fracture of Radius under most unfavourable circumstances, the patient being 84 years of age and maniacal; no treatment was possible; nevertheless, the bone had united well; (3) a Diverticulum of the Bladder, the cause of which was obscure; the diverticulum was about half the size of the bladder, and connected with it by an opening that would just admit a goose quill; (4) Brain of a Microcephalic Idiot of low type; Dr. Pierce pointed out that the lobes were small relatively to the rest of the brain, and that they failed to cover the cerebellum; he remarked that the brain when first removed weighed 38 ozs., and that, after being hardened in formalin for six weeks, it had gained 10 ozs. in weight.—Mr. **GOUGH** detailed the Microscopical Changes in the Lymphatic Glands, Spleen, Liver and Lungs from a case of Hodgkin's Disease, and showed microscopical preparations.—Dr. **WEST SYMES** (Halifax) showed Dermoid Cyst of Ovary containing fully-formed teeth, hair, skin, and bone from a patient aged 39. At the operation the cyst was found very adherent to surrounding structures. The adherent vermiform appendix was removed with tumour. The patient was discharged after an uninterrupted recovery.—Dr. **CHURTON** showed: (1) A Thoracic Aneurysm which had pointed in the axilla; and (2) the parts involved in a Subphrenic Abscess.—Mr. **R. H. HALL** showed a Perforated Gastric Ulcer from a young man aged 22. The symptoms were indefinite, and death rapidly took place.—Dr. **EURICH** (Bradford) showed: (1) A large Ulcer of the Stomach, death having been due to hæmorrhage; (2) a Primary Sarcoma of the Sternum; and (3) a Glioma of the Brain from a boy aged 5 years.—Dr. **HELLIER** showed a specimen of Hæmorrhage in the Ovaries, and a skiagram of Congenital Deformity.—Dr. **EDGERLEY** (Menston) showed a specimen of Porencephaly, in which the area involved extended from considerably in front of the position of the anterior limb of the Sylvian fissure on the left side to the posterior parietal lobule, and from the upper part of the second frontal convolution above to the inferior temporal sulcus. In this area the brain cortex was entirely absent, and the white matter was represented only by a thin membrane separating the cystic space from the lateral ventricle on the inner side. The outer wall was formed by the pia arachnoid membrane. The optic thalamus was atrophied and the opposite half of the cerebellum was much reduced in size. The pyramidal tract on the same side was diminished in the crus, pons, and medulla. The patient had died at the age of 43, and had been a congenital hemiplegic imbecile, who had suffered from epileptic fits for fifteen years before her death. The area involved corresponded to the distribution of the middle cerebral artery, a fact supporting the theory of vascular occlusion as a probable cause.—Mr. **LITTLEWOOD** showed, among other specimens: (1) Tuberculosis of the Flexor Sublimis Tendon secondary to disease of the synovial sheath; (2) a Pedunculated Subsynovial Lipoma removed from the knee-joint; and (3) Cysts of the Left Ovary and Half the Right Ovary also containing Cysts removed from the same patient.—Dr. **WARDROP GRIFFITH** showed two specimens of Pneumonic Lung, one of which was associated with Infective Endocarditis; also specimens of Malformation of the Tricuspid Valve and of Abnormal Chorda Tendinea in the Left Ventricle.—

Mr. **Moynihan** showed: (1) Three examples of Perforating Appendicitis; (2) Intussusception from a Dog; (3) photographs and water-colour drawings from cases of Retroperitoneal Hernia; and (4) (with Dr. **Griffith**) Right and Left Duodenal Herniæ.—Mr. **Moynihan** and Dr. **Powell White** showed: (1) A Retroperitoneal Tumour removed by operation; it occupied the position of the kidney and suprarenal body, which were absent, the mass also extended into the scrotum; microscopically it consisted of myomatous tissue, containing fat and the remains of glandular epithelium; (2) a Retroperitoneal tumour removed by operation; microscopically it was a lymphosarcoma.—Mr. **Walter Thompson** showed an Epithelioma of the Upper Jaw arising from the nasal surface.—Dr. **Allan** showed: (1) The Intestines from Typhoid Fever in a woman aged 70; (2) Ulcerative Colitis apparently due to influenza; (3) a Collar-like Stricture in the lower part of the Œsophagus.—Dr. **Brönner** (Bradford) showed numerous Microscopic Specimens demonstrating the various growths of the Nares—sarcoma, cylindroma, papilloma, myxoma, adenoma, carcinoma, tuberculous growths; also Specimens illustrating the degenerative and hypertrophic changes which take place in the Mucous Membrane of the Nares.—Dr. **Trevelyan** showed: (1) Diphtheria Bacilli from a case of Membranous Stomatitis, without involvement of the Fauces; (2) True Hypertrophy of One Lung from a case of long-standing quiescent disease of the other lung.—Dr. **Trevelyan** and Mr. **Secker Walker** showed Sections through the Cerebrum and Cerebellum from a case of Suspected Intracranial Abscess; no such abscess was found, although the symptoms during life were so marked as to necessitate an exploratory operation; the specimens showed considerable hæmorrhage along the tracks of the exploring trocar; no gross lesion such as would account for death, was found in the body; more than forty microscopic specimens were shown in illustration of the naked-eye specimens.—Professor **Birch** gave a Lantern Demonstration on the Commoner Blood Spectra produced by Poisons and Drugs.

LIVERPOOL MEDICAL INSTITUTION.

W. Macfie Campbell, M.D., President, in the Chair.

Thursday, February 23rd, 1899.

Discission of Crystalline Lens.

Mr. **Hugh E. Jones** exhibited patients on whom discission of the crystalline lens had been performed for high myopia.

Cholecystectomy.

Mr. **Frank T. Paul** submitted a case of cholecystectomy for gall stones and cancer. The tumour was a small villous carcinoma of the fundus of the gall bladder, which was removed, together with the upper half of the organ and 13 gall stones. The patient recovered from the operation in a few weeks, but in two and a half months died from enlargement of the liver, which was apparently not due to recurrent cancer, but to some inflammatory condition, probably set up by stones in the hepatic ducts.

Mr. **Rushton Parker**, and Drs. **Imlach**, **E. T. Davies**, and **Alexander** spoke.

Myositis Ossificans.

Mr. **Robert Jones** showed a youth, aged 16, who came to him because of difficulty in flexing his knee, caused by a hard mass apparently attached to the upper two-thirds of the thigh, which interfered with muscular action. Further growths were found on the inner aspect of the right jaw below the ramus, a small lump below the right olecranon, thickening at the insertion of the right ligamentum patellæ, and at each first tarso-metatarsal joint. His back presented an extraordinary spectacle. Over the spinous processes a continuous line of hard material, cartilaginous or bony, extended from the level of the fifth dorsal to the fourth lumbar spine. This central edge bifurcated at the lower end, the extremities of the bifurcated portions almost reaching to the iliac crests. From the central tissue two transverse strips projected at the upper end and two at the lower almost symmetrical in appearance. The upper ones arose about the level of the seventh dorsal, and were about 2 inches in length; the lower ones at the level of the second lumbar, the right being about 3 inches long and the left 2 inches. These prolongations were movable, and the fingers could be placed under their tips. The boy was unable to stand absolutely erect from the fact that extension of the spine resulted in the jamming of structures in contact with the lower end of the prominence. Four years ago he fell on a doorstep and hurt his back; a year later the growth started in the centre of the spine. The origin of the tumour of the jaw could not be fixed. The thickening at the elbow started after a blow, and the tumour of the thigh had lasted four months. Mr. Jones purposed removing the growth on the back and any other deposits which might interfere with breathing.

Mr. **Rushton Parker** made remarks.

Pylorectomy for Stenosis of the Pylorus.

Dr. **Alexander** read notes of a case in which "Murphy's button" was employed and the patient quickly recovered.

Mr. **Rushton Parker** said that cases such as this threw great light upon the question of ulcerated stomach. The cicatrices mentioned by Dr. Alexander and found by himself in a recent case of pyloroplasty for stenosis, together with the long continued dyspeptic symptoms, seemed to suggest the cicatrisation of ulcers as a cause. In his own case a small ulcer actually existed at the time of operation on the stomach side of the narrowed pylorus. In neither of the 2 cases operated on by himself was the mucous membrane of the narrowed parts itself the seat of recognisable scarring, which existed only in the neighbourhood.

Mr. **F. T. Paul** thought the specimen shown was a congenital stricture.

Dr. **Carter** also spoke.

Vaginal Section.

Dr. **Briggs** read a paper mainly based on 16 operations in his own practice. In 13 posterior vaginal section, and in 3 anterior vaginal section, was the operation performed. The cases treated by posterior vaginal section included 5 of hæmatocele due to ectopic pregnancy, 3 of tubo-ovarian cysts (ovarian hydrocele), 1 of simple papilloma of both ovaries, 1 of hydrosalpinx, 1 of chronic infective salpingo-oöphoritis, 2 of chronic infective metro-salpingo-oöphoritis (with hysterectomy)—13 in all. Anterior vaginal section included 3 of chronic salpingo-oöphoritis with retroversion, for each of which, after the removal of the ovary and tube, the uterus was steadied forwards by vaginal fixation. In hæmatoceles the vaginal drain was employed in chronic cases, and the important question seemed to be, Was it necessary to empty or remove the Fallopian tube in cases of incomplete tubal abortion or tubal mole? The uncertainty of being able to recognise the tubal condition ought not to be disregarded until it had been shown that drainage alone was sufficient. In 3 cases a portion of the outer end of the tube was removed, and in 2 cases the tube was neither felt nor seen. All the cases, with one exception where the patient was lost sight of, recovered equally well. Operators seemed to agree that the tubes and ovaries might be left behind. Available evidence pointed towards posterior vaginal section as the treatment of chronic hæmatocele, distending the pouch of Douglas. Tubo-ovarian cysts, simple papillomatous growths and salpingo-oöphoritic lesions, if accessible from below, could be removed from the pouch of Douglas by posterior vaginal section. It was evident that where there was matting, thickening, and firm fixation, especially towards the lateral walls of the pelvis, there was difficulty in securing the pedicle. More room was obtained by removing the uterus, which in infective inflammations was often, as Landau has urged, in an incurable state. The author removed the uterus in two of the cases quoted, because of the conditions alluded to. One patient lost her life from hæmorrhage thirty hours after operation, the hæmorrhage having been concealed behind the cyanide-gauze pack, and escaped the notice of the attendants in charge. This case was a posterior vaginal section for adherent hydrosalpinx, with thickened broad ligaments and an enlarged stiffened uterus. The specimen was carefully examined, *post mortem*. The stump was apparently securely held by the silk ligatures still *in situ*; the end of the stump was swollen, and its margins recurved; the uterine artery was tested by injection; water oozed through the vessels of the stump, but a thicker pigmented starchy solution would barely pass. Shrinkage of the stump, and difficulty in securing the proper constriction of thick rigid tissues, rendered tense by forcible traction during operation, explained the incomplete hæmostasis. The results in the cases of removal of the appendages, with vaginal fixation for retroversion effected by anterior vaginal section, were too recent to report upon. In the 16 cases there had been one death from hæmorrhage, as reported.

Remarks were made by Drs. BURTON, E. T. DAVIES, GEMMELL, and GRIMSDALE; and Professor BRIGGS replied.

CLINICAL SOCIETY OF MANCHESTER.

A. HILL GRIFFITH, M.D., President, in the Chair.

Tuesday, February 21st, 1899.

THE OPERATIVE TREATMENT OF MALIGNANT DISEASE OF THE BREAST AND UTERUS.

MR. F. BOWREMAN JESSETT (London) in opening a discussion on this subject, referred to the bad results which had followed operation by the older methods, owing to the imperfect knowledge of the mode of spreading of carcinoma and sarcoma and to the ignorance of the anatomy of the lymphatic system. It was only during recent years that the importance of free and wide removal of the disease had been recognised. The researches of Mr. Harold Stiles and of Heidenhain as to the way in which many of the lymphatics of the breast entered the pectoral fascia and pectoral muscle were referred to. Malignant disease, wherever situated, was much more likely to recur after operation in persons under 30 or 35 years of age than in persons over 50. In old persons, by removing the enlarged lymphatic glands again and again, the disease might sometimes be eradicated. Hence it was important, after removal of the breast, to examine the patient every two or three months, so that any recurrent growth could be at once removed. The prognosis after operation in malignant disease of the breast depended not only upon the age of the patient but also upon the extent of the operation and upon the nature of the malignant growth. In cases of sarcoma and of duct cancer the prognosis was much better than in cases of scirrhus. Soft, rapidly-growing cancers were also more liable to recurrence. In cases of atrophic scirrhus possibly operation might do more harm than good. In order to preserve the movements of the arm and shoulder-joint it was recommended that the arm be fastened by means of a bandage to the head of the bed for some days after the operation. In at least 20 per cent. of his cases there had been no recurrence within three years. Mr. Jessett had performed vaginal hysterectomy for uterine carcinoma in over 120 cases. Cases of malignant disease of the os uteri and lower part of the cervix were most favourable for operation; 11 such cases operated upon between 1892 and 1896, in addition to others of later date, were alive and well. In the body of the uterus the prognosis was not so favourable. He expressed the opinion that many cases arose from malignant degeneration of a submucous fibroid tumour. Between 1891 and 1895 he had performed vaginal hysterectomy for cancer of the body of the uterus 16 times; 4 of these patients were free from recurrence at periods varying from three to six years. The most unfavourable cases were those in which the disease commenced in the cervical canal, owing to the rapidity with which the disease extended to the surrounding parts and the uterus became fixed. Of the whole 120 cases, 8 only had died as a result of the operation. Of 70 cases operated upon prior to July, 1896, 15 were known to be alive and free from recurrence, whilst 5 others had died more than three years after operation from other diseases than cancer. The importance of early diagnosis of malignant disease, both in the breast and in the uterus, was dwelt upon. Mr. Jessett had in two cases followed the recommendation of Dr. Beatson that oöphorectomy should be performed in certain cases of inoperable cancer of the breast, but in neither case was the slightest benefit noticeable.

Dr. DONALD said that there were many undoubted cases in which a patient had been cured of uterine cancer by means of operation, and that there could not be any doubt about the advisability of the operative procedure.

Dr. BUCKLEY referred to 3 cases in which both breasts were affected with carcinoma, and in which he had performed a double operation.

Mr. STANMORE BISHOP protested against the dictum that those breast cases were least liable to recurrence in which suppuration occurred in the wound. Skin should be sacrificed freely, but it was always best to obtain primary union by gliding flaps or by Thiersch's grafts. He quoted examples to prove that cases so treated were equally free from return. That a surgeon should prefer to trust to the blind operation of suppuration rather than to a well planned and cleanly-finished operation leading to primary union, was a retrograde step.

Mr. MILNER mentioned (1) a case in which, four years after amputation of the breast for cancer, there were numerous deposits in the scar and in the axillary and supraclavicular glands. No further operation was performed, but two years later most of these deposits had atrophied, and some had disappeared. The patient had been last seen nine years after the operation. (2) A case of fungating scirrhus of the breast in which the tumour and the axillary glands weighed nearly 10 lbs. There had been no recurrence four years after operation.

Dr. HELME expressed his entire agreement with Mr. Jessett's conclusions as to the value of vaginal hysterectomy in cancer. Although there was not a certainty or even probability of cure, yet the life of the patient was so much better in many ways that the operation was more than justified. On the other hand, he criticised the opinion that in all cases of discharge from the senile uterus one should infer a malignant origin, and should resort to hysterectomy. He instanced a case where the clinical symptoms three years ago pointed to cancer, but where cure was effected by a single curetting, the patient subsequently remaining well and free from discharge.

Dr. WALTER referred chiefly to the importance of early diagnosis in cases of cancer of the uterus.

Mr. PLATT referred to an investigation which he had undertaken some years previously into the after-history of 55 cases of cancer of the breast which had been operated upon at the Manchester Royal Infirmary. He had been struck by the fact that in cases which had had a return of the cancer the recurrent growth nearly always first appeared in the scar or in the axilla. Recurrence in the internal organs had been comparatively infrequent, and hence very free removal at the time of operation was indicated.

Mr. J. W. SMITH thought that the weakest point in breast operations at the present time was the removal of an insufficient amount of skin. In many modern operations not so much skin was removed as in the older operations, where the projecting organ was sliced off. He referred to a patient of his operated upon in May, 1895, in whom there had been no local recurrence, but who had had a slowly growing mass in the sternum for two years past.

Dr. GRAHAM mentioned a case in which sixteen years after the removal of the breast fatal cancer recurred in the uterus.

Mr. JESSETT replied.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.—At a meeting of this Society on February 1st, Dr. J. D. PRYCE, President, in the Chair, Dr. HANDFORD read notes of three cases which had been under his care. The first was one of Frontal Osteoma, which will be published. Mr. A. R. ANDERSON, who operated in this case, contrasted the use of the trephine and Hoffman's forceps with that of the mallet and chisel; the shock of operation was much less with the former than the latter. Mr. WILLIS also made remarks.—The second case was one of some obscurity, but was thought to be Actinomycosis of the Transverse Mesocolon. The patient was a gamekeeper admitted to the hospital in August, 1898, with abdominal pain and diarrhœa. During his stay in the hospital he wasted rapidly, losing four stone in six or eight weeks; he also had repeated rigors and jaundice once for twenty-four hours. An exploratory cœliotomy was performed and a large mass was discovered about the head of the pancreas, the intestines being matted together. Nothing could be done, and the wound was closed. He subsequently died, and the necropsy revealed a large, dense mass of fibrous tissue in the transverse mesocolon, with numerous scattered abscesses. Ulceration had taken place into the stomach from without. The ray fungus could not be demonstrated beyond doubt in any of the pus. Mr. A. R. ANDERSON, who had operated, remarked that he had no doubt that the disease was actinomycosis. He had operated on about 12 cases of this disease now, and had been present at necropsies on several others, and his experience of actinomycosis was probably larger than that of any other English surgeon, and he was persuaded that this case was one of actinomycosis, even in the absence of discoverable ray fungus. —A third case related was that of a lad who had been treated for five weeks at the General Hospital for chronic gastric ulcer, of which disease he had the classical symptoms. He improved greatly, and was sent to the Convalescent Home. Shortly afterwards he was readmitted, suffering from abdominal pain, distension, vomiting, and a febrile temperature. Tuberculous peritonitis was diagnosed, and Mr. A. R. Anderson performed cœliotomy, the diagnosis being verified. The patient subsequently died. Dr. **Handford** suggested that he had become infected with tuberculous milk during his stay at the convalescent home, his diet having consisted of milk at that time, and that he had the more readily become a victim to the disease on account of his old and long-standing gastric trouble.

Glasgow Medico-Chirurgical Society.—The ninth meeting of the session was held on February 17th, when Dr. T. K. **Dalziel** showed a successful case of Laparotomy for Perforated Enteric Ulcer, the first of its kind in Glasgow.—Mr. R. H. **Parry** showed a case of Impacted Extracapsular Fracture of the Femur, treated by incision over the trochanter and replacement of the fragments in proper position. The patient was going about in seven weeks and there was no shortening. —Dr. J. G. **Connal** showed a very large Nasal Polypus with Cystic Degeneration, which had existed for at least eighteen months without causing inconvenience.—Dr. **Glen** showed a specimen of a Heart with a Single Ventricle from a child that lived to the age of 5 months; and Dr. R. M. **Buchanan** showed a drawing of a Heart with a Single Ventricle and a Single Auricle.

Midland Medical Society.—The second ordinary meeting of this Society was held on November 16th, 1898, at Birmingham, the President, Dr. W. G. **Lowe**, in the chair. The following gentlemen were elected members of the Society: Mr. A. Baldwin, Mr. J. M. Donovan, Mr. Herbert Malins, Mr. J. A. O'Dowd, Mr. H. Simms.—Mr. **George Heaton** showed a boy aged 9 on whom he had operated two years ago for very severe Talipes Equino-varus. Varus tenotomy had previously been performed, but the foot had always relapsed into its deformed position. Phelps's operation was performed, all the structures being divided on the inner side down to the bone. The wound was left quite open and allowed to granulate. The boy was afterwards fitted with leg irons. No after-treatment had since been adopted, and there was no recurrence of the deformity.—Dr. **Kauffmann** showed two women aged 36 and 49 suffering from Chronic Inflammatory Formation within the Thorax. In the younger the disease had commenced eight years ago with an acute illness accompanied by swelling of the neck and face and cyanosis. From that time there had gradually developed signs of obstruction of the superior vena cava, and at present she showed large prominent tortuous subcutaneous veins crossing over the front of the chest and carrying blood downwards into the diaphragmatic veins and to the umbilicus. The patient had noticed no change in these veins during the last few years, and in general health she was well. The only inconvenience was cyanosis of the face on stooping (when the diaphragm was more or less fixed). There were no other pressure signs, and the cicatricial contraction appeared to have come to a standstill. The older patient had developed gradually within the last eighteen months signs of pressure on the right innominate vein, together with a smooth uniform swelling in the right supraclavicular and infraclavicular regions. Within the last twelve months her voice had become hoarse, and laryngoscopic examination showed some ulceration of the right vocal cord. There had likewise appeared on the right side of the neck a cicatricial formation somewhat resembling keloid, but generally held by those who saw the patient to be syphilitic in nature. The doubtful history of syphilis was obtained. This patient was likewise in good health, free from pain and from anginal attacks, and the disease seemed to be no longer progressive from the fact that the veins had not materially altered within the last six months. In neither patient were there any abnormal physical signs in the heart or lungs.—Mr. J. W. **Taylor** read a paper on Gonorrhœal Salpingitis: its Medical and Surgical Treatment.

REVIEWS.

The University Education Question in Ireland: Its Difficulties and their Solution. By W. Whitla, M.A., M.D., Professor of Materia Medica, Queen's College, Belfast, etc. Belfast: Wm. Strain and Sons. (6d.)

In this vigorous and trenchant pamphlet Professor **Whitla** deals chiefly with present-day difficulties in administering the affairs of university education in Ireland, and pays special, but not exclusive, regard to the medical phases of the subject. While he is thoroughly courteous to his opponents, he expresses his own views with force and candour. The pamphlet appears at an opportune moment, for, as the author says:

> There has never been a time when such a deep interest has been aroused in any educational subject as that in which at present occupies the minds of Irishmen......It is apparent to those who have studied the question that it is surrounded with intricate and even perplexing considerations. "The man in the street," however, is always positive that the problem is a very simple one, and that he could settle it in a few minutes, and "the man on the platform" generally thinks or says the same. ......The present contribution is made with the view of placing before those interested in the subject who may not be familiar with university educational methods, some facts which may assist them in arriving at a conclusion about the best way in which the problem can be solved.

The objections of the Roman Catholic hierarchy to Trinity College are passed in review, the author remarking that

> little is now said or thought in the present agitation of making any radical changes in this ancient seat of learning.......The interest of the hour centres round the Royal University and the three Queen's Colleges, for no one believes that any settlement of the Irish University question can be attempted which shall not entail radical changes in all these institutions.

A short retrospect is then given of the founding of the Queen's Colleges in 1845, of their condemnation by the Catholic bishops at the Synod of Thurles in 1850, of the establishment from private funds of the Catholic University College in St. Stephen's Green, Dublin, in 1854, and of the abolition of the Queen's University and the founding of the Royal University in 1879. Dr. Whitla then observes that in his opinion

> no settlement of the Irish University question is possible if approached without realising that the Royal University Act established as valid the claims of the Catholic bishops that the acceptance of the principle of mixed University education is a violation of the conscience of those Catholics who enter a mixed College. It is, perhaps, sad that such a confession has to be made, but the time has now come when the fact must be realised. The battle was fought by the undenominationalists and lost in 1879. It is now evident that future legislation, if it is to be of such a nature as can be accepted by the Irish Catholics, must be framed upon a broad recognition of this conclusion.

The constitution and history of the Royal University are then described, and its working declared to be unsatisfactory. He contends that it has been organised to secure a real and substantial, though unrecognised, endowment of Catholic University education by the State. The Fellowships of the Royal University have been so allocated that

> the entire endowment received directly or indirectly for the Arts Faculty of Belfast Queen's College amounts to little over the half of that received by the Arts Faculty in the Catholic College in Stephen's Green, Dublin, whose professors are appointed without State authority or sanction.

Professor Whitla expresses the opinion that

> from an educational point of view the condemnation of the existing system does not lie in the fact that the endowment is received; much less does it lie in the amount which, after all, from the statesman's point of view is paltry; but it lies in the fact that the method of endowment is, in its working out, about the most injurious that can be conceived in the interests of higher education. No one can form any idea of the extent of this evil without some knowledge of the routine of the Royal University's work.

Professor Whitla states that in the appointment of examiners the Senate of the Royal University has acted uniformly upon "the two-and-two" principle—that is, in all subjects a Protestant examiner is balanced by a Catholic examiner and *vice versâ*, and adds:

> It is at once evident that when the selection of an examiner is limited in a given case to men of one denomination, either Catholic or Protestant, a principle is introduced which is highly detrimental to education. It works for evil in two possible ways—either that the Senate is forced to appoint an inferior man because he belongs to a particular denomination, or to reject another and superior man simply because his denominational qualification does not chance to fit into the peculiar vacancy.

The distribution of examinerships in the Royal University is then considered in detail. It is stated that there is an

> overwhelming preponderance of examiners representing the Catholic College and its medical school on the Board of Examinations deciding the results in the arts and medical faculties in the Royal University.

The following illustrations of the actual working of the system are given: Belfast sends up about half, or rather more than half, of the candidates for the degree of M.B., but of the twelve examiners for this degree

> Belfast has two; five are teachers in the Catholic school; one is a Dublin physician and a member of the governing body of the Catholic School; one is a professor in Galway Queen's College; two are from Cork Queen's College; and one is a distinguished hospital surgeon and ex-President of the College of Surgeons.

This condition of affairs, we are told, is looked upon in the great medical school of Belfast as a gross injustice. In the Third Medical Examination, the one just preceding the Degree Examination, where Belfast students also largely preponderate, the Board consists of seven examiners.

> Two are from Belfast, one is from Cork, one from Galway, and three are teachers in the Catholic School of Medicine.

Dr. Whitla comments with severity on the absence of extern examiners in the Royal University, pointing out that the extern examiner, such as is found in the Scotch and other Universities, "is a public guarantee of the standard of the degree for which he examines." The results are stated to be very bad. In the days of the Queen's University, when the Belfast Medical School had more than 350 students,

> the man who deliberately started the study of his profession with the view of finally entering medical practice through the "lowest portal" of a licensing body (that is, not through the University) was regarded by his fellow students with something worse than pity. Now quite one-half of all our medical students, owing to the unpopularity of the Royal University, deliberately begin, continue, and end their collegiate career with no higher ambition than to obtain the lowest qualification which will enable them to begin practising upon the public.

The various solutions of existing difficulties are then passed in review by Professor Whitla.

1. The Nationalisation of Trinity College.—The author holds that

> should such a solution be attempted we should almost certainly find in another twenty years that Trinity College would be completely destroyed. The working of the Royal University should be an object lesson to all who dream of a settlement of the question on these lines.

2. A liberal endowment of one or more Catholic Colleges, the Royal University to remain as at present an Examining Board for the granting of degrees to these Colleges and the Queen's Colleges.

> The contentions and difficulties, and it may be said the impossibility of giving what each of these Colleges would consider an equitable representation upon the Examining Boards of the University, would cause all the objections of the present system to be intensified, and would act in a way which would be absolutely fatal to higher education in the North of Ireland. Moreover, it is evident that no settlement on such lines would be permanent. The situation is really fast coming to this: We are in Ireland forcing upon the Catholics a system of university education which is not acceptable to them, and which in its working out is injuring fatally our own ideal of what all higher education should be.

3. Mr. Balfour's proposals, of which Professor Whitla approves. He thinks two conditions are necessary to the success of the proposed new Catholic University and the proposed Northern University in Belfast. These are (1) that the Professorial Chairs should be filled by the Crown; and (2) that there should be extern examiners appointed by the governing body. As regards Ulster, Dr. Whitla feels sure that

> with these two safeguards, the Northern University proposed by Mr. Balfour cannot fail to prove a great success, and an unspeakable boon to the North of Ireland.

A useful appendix contains Mr. Balfour's letter, the resolutions of the corporate body of Queen's College, Belfast, and the letters contributed by President Hamilton to the Belfast newspapers.

A TREATISE ON "UNRIPE" CATARACT. By WILLIAM A. M'KEOWN, M.D., M.Ch., Surgeon to the Ulster Eye, Ear, and Throat Hospital, Belfast. London: H. K. Lewis. (Roy.8vo, pp. 202. 12s. 6d.)

THIS book consists of ten chapters and an appendix, and is illustrated by nine plates containing sixty original drawings. It is now fourteen years since Dr. M'KEOWN first gave to the world his views on the treatment of immature cataract in his address at the Ophthalmological Section of the British Medical Association when it met in Belfast. From this time to the present he has adopted the injection of fluid into the lens capsule and into the anterior chamber as the routine treatment when dealing with cataracts, especially with the immature ones.

The first chapter is devoted to general observations; the second to classification; the third to the examination of the patient; the next five have all to do with the special operative methods under discussion; while the ninth chapter is devoted to the statement of cases and the tenth to conclusions.

The method adopted by the author is well known in its general features. Its special feature is the washing out of the cortex by means of fluid injected either into the lens capsule or into the anterior chamber.

Very careful attention is given to the preparations for the operation, both regarding the patient and also the instruments, and especially the fluid used for irrigating the interior of the eye.

With regard to chemical antiseptics Dr. M'Keown considers "chinosol superior to all others"; the strength recommended is 1 in 4,000, though for actual injection into the eye nothing but sterilised saline solution is used. Preparations of mercury are especially to be avoided, on account of the tendency they have to produce permanent opacity of the cornea when they find their way into the anterior chamber.

The irrigating apparatus consists of a flat-bottomed Florence flask into the mouth of which is inserted a close-fitting cork, through which two glass tubes pass. One, a short tube with a bulb in it, passes just through the cork, while the other also passes through the cork, but reaches to the bottom of the flask, and has an indiarubber tube attached to its outer end. The flask is rather more than half filled with normal saline solution (sod. chlor. 4 gr. to 1 oz.), which is sterilised by boiling *in situ*; the long tube is then clamped, while the other which has the bulb upon it is left open, the bulb, however, having first been filled with cotton wool to act as a filter, while to the outer end of it is fixed a hand bellows so as to be able to start the siphon action when it is required for use. The fluid is used at the blood temperature or a little higher. Dr. M'Keown has devised several varieties of nozzles for introducing water both into the anterior chamber and also into the lens capsule. The object of the latter is to separate the cortex from the capsule of the former, to wash lens matter, which is more or less free, away from the chamber. The probable behaviour of the different varieties of cataract is described and given in a tabular form, and after a full description of the method as applied to senile cataract, the procedure in the case of lamellar and soft cataract is discussed.

The last 70 pages of the book are devoted to the statement of cases, together with an appendix.

The book is beautifully got up and the illustrations are excellent. The author's style is not so lucid as could be wished, but the book is valuable as a statement of the results obtained from the extensive practice of one who must have had abundant opportunities of seeing the method advocated by him put into daily practice. Although most surgeons are fairly satisfied with the ordinary operations in common use, yet we welcome this volume as the outcome of the very careful attention given to the subject by one who is so well known in this branch of surgery.

NOTES ON BOOKS.

THE twelfth fasciculus of the *Atlas of Illustrations of Pathology*, compiled for the New Sydenham Society (London: H. K. Lewis), offers four excellent coloured plates of lymphadenoma or Hodgkin's disease. The illustrations have a certain interest of their own in that they are reproductions, now for the first time published, of original water-colour drawings made by Sir Robert Carswell. The true nature of the particular case recounted was recognised from the drawings by Dr. Hodgkin, who had previously observed the chief features of the lymphatic disease which is commonly named after him. The plates exhibit enlarged groups of lymphatic glands in the neck, axilla, and groin, beneath the liver, and about the spleen, as well as new formations within the spleen itself. No investigation was made into the condition of the bone marrow. The general effect of the figures is very good, but some are lacking in finish.

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICINAL AND DIETETIC PREPARATIONS.

Varnished Pills.—The varnish employed for coating pills may consist of sandarach dissolved in alcohol, or a mixture of chloroform and ether. For dark-coloured pills a solution is used made by dissolving in a chloroform and ether mixture the residue left in the manufacture of syrup of tolu. The objection to varnished pills is that, if kept, the varnish is apt to become impermeable so that the pills no longer dissolve readily. Some Blaud's pills submitted by Mr. Wand, manufacturing chemist, Leicester, were readily acted upon by warm water, and the contents were in an unchanged condition. Before using varnished pills which have been kept for any time it is necessary to ascertain that the coating remains soluble.

Thiocol.—Mr. Hugo Lorenz, 7, Idol Lane, London, E.C., has sent a sample of thiocol, a new remedy intended to replace guaiacol in the treatment of tuberculosis. The advantages it is alleged to possess over the latter substance are that it has no odour, is easily soluble in water, is non-irritating to the stomach, and easy of assimilation. Chemically thiocol is the potassium salt of guaiacol sulphonic acid, and contains 60 per cent. of guaiacol. It occurs in the form of a fine white powder, the taste slightly bitter at first but sweet afterwards. It is stated that one-third to half an ounce can be given for long periods without producing any ill-effects.

Preserved Fruit.—We have examined samples of the bottled plums, gooseberries, and cherries labelled "Preserved Fruit," and prepared by Mr. E. Blatchley, of 167, Oxford Street, London. It is claimed that these fruits are preserved without the addition of sugar, and that they are free from all chemical ingredients, a statement which is to be taken to mean that the fruits have been preserved without the addition of chemical "preservatives." The results of our analyses enable us to state that these claims are justifiable, the samples examined having been found to be free from added sugars and antiseptic chemicals. In the case of the plums the copper reducing substance present (after inversion) amounted to 2.65 per cent. calculated as glucose, in that of the gooseberries to 1.96 per cent., and in that of the cherries to 3.35 per cent. They are pleasant and satisfactory in taste and flavour, and upon the results we have obtained we think they are worthy of the attention of the profession.

Vibrona Wines.—We have examined a sample of a "tonic wine" prepared by Messrs. Fletcher, Fletcher, and Co., of Holloway, London, and called "vibrona." It is claimed that the preparation is a sound wine blended with a specially prepared extract of cinchona, and that the quantity of cinchona is standardised, the amount of total alkaloids being from about 0.25 to 0.3 gr. to 2 fluid ounces. The results of our examination show that the preparation consists of a sound wine of good quality, and that it contains 0.26 gr. of cinchona alkaloids in 2 fluid ounces. As it is evidently a high-class preparation, and as the makers take steps to ensure uniform composition, we are able to recommend it. It is very properly pointed out by the makers that this wine differs from many other prepared wines in that it is a tonic and not a narcotic preparation. The makers of vibrona have also submitted to us some samples of their "vibrona champagne" for examination. We find that this wine is a very dry champagne of good quality, containing only a small amount of total solid matter and a very slight amount of sugar (0.18 per cent., as glucose). The wine is free from added sugar, and contains a preparation of cinchona bark. The cinchona alkaloids present amount to 1.2 gr. per pint, and the taste is but slightly noticeable. The wine is pleasant and well prepared.

St. Raphael Quinquina Tonic Wine.—We have examined a sample of St. Raphael Quinquina wine, and from the results we have obtained we are able to state that the preparation consists of a wine of good quality containing an appreciable amount of extract of cinchona bark. We may point out that the usefulness of preparations of this kind would be greatly enhanced if, having regard to the great variations in the amounts of the alkaloids contained by cinchona barks, manufacturers would ascertain the actual amount of the alkaloids present in each batch of their products, and if, having done this they would give this information on the labels, and take steps to have the claims thus made independently controlled.

MEDICAL AND SURGICAL APPLIANCES.

A Case Paper.—Messrs. J. Wright and Co., Bristol, have published a "case paper," suggested by Drs. J. K. Couch and E. Le C. Lancaster. It contains headings for date, name, etc., family history, previous history, and present illness, followed by a section for notes concerning every system of the body, and two pages of outline figures of almost every region. Case-taking adds greatly to the interest of a practitioner's daily work and the reports thus obtained may furnish mines of information; but it entails extra labour, and is therefore too often neglected. By the use of such a form as this, however—particularly if shorthand or abbreviations are also used—the labour is reduced to a minimum, whilst the cases can be easily arranged in series for future reference.

Paper Pockethandkerchiefs.—We have received from Messrs. Squire and Sons, 413, Oxford Street, specimens of Japanese pockethandkerchiefs. They are made of very fine Japanese paper or cellulose, and prettily ornamented round the edges with Japanese figures. These pockethandkerchiefs, we are informed, are the finest made, and are such as are used by the ladies of Japan. They are agreeably scented with some resinous scent. The Japanese are and have been ahead of the Europeans in this sanitary measure for years. There is little doubt that the practice of carrying about pockethandkerchiefs, and, as often happens, leaving them lying about, is not free from danger of disseminating influenza, and even more serious diseases. The Japanese burn the handkerchief after it has been used, but we are not aware how this is carried out in the absence of the open domestic fire. The handkerchiefs are sent out in boxes of 100, at 2s. 6d. each. Infectious disease has frequently been traced to the laundry and the use for personal wear of material that can easily be destroyed unquestionably removes one source of danger.

A Truss Pad.—A truss to which the inventor, Mr. Vincent Wood, of Albion Place, Blackfriars Bridge, has applied the name "herno," is furnished with a soft and elastic pad made of a specially-prepared composition. The advantages claimed for this over other forms of elastic truss, as, for instance, those provided with rubber pads or with pads distended by air or fluids, are that it is not likely to be affected to any degree by heat or cold, and also that it is capable of bearing pressure without bursting. A prolonged and varied trial of this pad has convinced us that it is extremely soft and comfortable, and that at the same time it affords a firm and reliable support. If, as is believed by the inventor, it is capable of arresting extreme heat and much wear and tear, this support will be found a valuable addition to the many forms of hernial truss, in most of which a professed advantage, is neutralised by some defect. Though a little dearer than the ordinary padded truss, its cost, it is stated, is so low as to bring it within the reach of most subjects of hernial protrusion.

Pneumatic Pressure-preventing Pad for Lady Cyclists.—Even those who are not cyclists know that the effects of the pressure of the saddle are among the chief drawbacks to the enjoyment of cycling. Many variously padded saddles have been invented to lessen these effects. The inventor of the "Komphy" has designed pneumatic pads which are not applied to the saddle, but worn by the rider. We are informed that they are thought well of by those who have tried them. They can be obtained from Messrs. Barclay and Sons, 95, Farringdon Street, E.C.

AT the annual general meeting of the governors of the Montgomeryshire Infirmary, Dr. Edward Cureton (Shrewsbury) was, on the motion of Dr. Palmer, seconded by Mr. J. C. Gittins, elected an Honorary Consulting Physician of the institution.

NOVA ET VETERA.

GLIMPSES OF INFLUENZA IN THE PAST.

OUR esteemed contemporary, the *Spectator*, has recently come forward as an authority on catarrh. This may possibly be the reason why it has been chosen by a correspondent to be the medium of communicating to the world a remarkable discovery which he has made about influenza. This is, that although "supposed by many people to be of recent growth"—as if it were a spring cabbage—it was actually known in this country in the year of grace 1837, as witness certain extracts from Lord Beaconsfield's letters to his sister. But alas for the pride of the discoverer! The next week another correspondent wrote to prove by a quotation from a play of Samuel Foote's (1721-1777) that "apparently the malady would have had good grounds in 1837 for celebrating its own Diamond jubilee, for its visitations must then have covered a period of at least sixty years." Had he said six hundred years he would have been well within the strict limits of historical fact; and had he said six thousand years he would have had the highest degree of probability on his side. If he will look into Hirsch's *Handbook of Geographical and Historical Pathology*, vol. i, chapter i, he will find a formidable list of epidemics of influenza extending over more than ten pages of small print, and "covering a period" of six centuries (1173-1874). And even this list does not tell the whole story, for Hirsch says that there are records of visitations before the twelfth century, and it may safely be assumed that down to comparatively recent times only the more serious outbreaks were deemed worthy of being chronicled. To the correspondents of the *Spectator*, and to all who may wish to learn the earlier history of influenza in detail, we recommend a study of Hirsch's great work to which reference has already been made. Of the visitations from which our own country has suffered, full accounts may be found in the *Annals of Influenza or Epidemic Catarrhal Fever in Great Britain* from 1510 to 1837 by the late Dr. Theophilus Thompson,[1] and the *History of Epidemics in Great Britain from A.D. 664 to the Extinction of the Plague*, by Dr. Creighton (p. 397, *et seq.*).

It is impossible here to give even a summary of the history of influenza; and a bare chronology of recorded epidemics would take up more space than we can afford, and would besides be of little interest or utility. But a glance at the disease as it meets us here and there in medical literature and in history will serve at least to show that though old, it is ever "new" to the generation upon which it comes with sudden fury, except to us in these days who, after ten years of annual recurrence, have come to know it too well. In this brief article we can only refer to a few of the epidemics which have occurred in our own country.

THE "MURE."

In 1173 one reads of influenza as prevailing in Italy, Germany, and Great Britain. In the chronicle of Melrose under that year there is an entry relating to "a certain evil and unheard-of cough (*tussis quædam mala et inaudita*) from which few escaped and of which many died. Dr. Creighton takes this strange and fatal cough to have been influenza. In a chronicle kept by an unknown writer of the Abbey of St. Albans there is, under 1427, the following entry: "In the beginning of October a certain rheumy infirmity (*quædam infirmitas reumigata*) which is called 'mure' invaded the whole people, and so infected old and young that it carried a great number to the grave." Dr. Creighton says that in the *Report* of the Medical Department of the Irish Local Government Board for 1890 influenza is identified under the name "slaedan," or prostration, which was epidemic in Ireland in 1326 or 1328, the same epidemic being called "murre" in the *Annals of Clonmacnoise*. He adds that "murrain," or *morena*, which occurs in Latin chronicles, is probably the modern survival of "mure" or "murre."

THE COCCOLUCHE.

A pandemic wave of influenza swept over Europe in 1510. It is described as follows by Thomas Short, an epidemiologist of the last century:

> The disease called *coccoluche*, or *coccoluchio* (because the sick wore a cap or covering close all over their heads), came from the island of Melite in Africa, into Sicily, so with Spain and Italy, from that over the Alps into Portugal, Hungary, and a great part of Germany, even to the Baltic Sea, every month shifting its situation with the wind from east to west, so into France, Britain, Valeriola, Pechlin, etc. It attacked at once and raged all over Europe, not missing a family and scarce a person. A grievous pain of the head, heaviness, difficulty of breathing, hoarseness, loss of strength and appetite, restlessness, watchings, from a terrible taring cough. Presently succeeded a chilness and so violent a cough that many were in danger of suffocation. The first days it was without spitting, but about the seventh or eighth day much viscid phlegm was spit up. Others (through fever) spit only water and froth. When they began to spit, cough and shortness of breath were easier. None died except some children. In some it went off with a looseness, in others by sweating. Bleeding and purging did hurt Bole Armoniac was chiefly useful, with only lintus's pectoral troches and decoctions. Where blood was let, the disease proved malignant and pestilential, being attended with a violent, cruel, and unheard-of malignity and more bad work."

Dr. Creighton thinks that the mention of sweating as a feature in this epidemic may explain a statement made by Erasmus in a letter written from Cambridge in 1511, to the effect that his health was still shaky *a sudore illo* (from that sweat).

Of the "violent, cruel, and unheard-of malignity" of the disease when complicated by bloodletting there is a startling proof in the record of the next pandemic in 1557, when we are told by Short that "at Mantua Carpentaria, three miles from Madrid, the epidemic began in August, and bleeding or purging was so dangerous that in the small town 2,000 were let blood of, and all died." Sangrado himself could not have been more "thorough." In an epidemic which raged in 1578 in Rome, 2,000 persons are also said to have been cured of the "fever called living" by the lancet.

THE "NEW ACQUAINTANCE."

That between the pandemic waves there were outbreaks of influenza which were considered beneath the dignity of history may be gathered from accidental references to the disease in letters or other documents. Thus, Miss Strickland in her *Life of Mary Stuart* quotes the following letter, written in November, 1562, by Randolph, the English Resident at the Court of Scotland, to Cecil:

> May it please your Honour, immediately upon the Queen's arrival here (Holyrood) she fell acquainted with a new disease that is common in this town, called here the "New Acquaintance," which passed through her whole Court, neither sparing lord, lady, nor demoiselle—not so much as either French or English. It is a pain in their heads that have it, and a soreness in their stomachs, with a great cough that remaineth with some longer, with others shorter time, as it findeth apt bodies for the nature of the disease. The Queen kept her bed six days; there was no appearance of danger, nor many that die of the disease except some old folks. My Lord of Murray is now presently in it, the Lord of Liddington hath had it, and I am ashamed to say that I have been free of it, seeing it seeketh acquaintance at all men's hands.

In some interesting Notes on Scottish Medicine in the Days of Queen Mary, contributed by Sir Thomas Grainger Stewart to *Blackwood's Magazine* some years ago, he identifies the affection so briefly and yet so clearly described by Elizabeth's astute envoy as influenza. In his recently-published "chronicle play," *The Good Regent*, he agains refers to it. Moray says to Mary (Act iv, Scene vii):

> Your strength will soon return. Bethink you how
> You tottered feebly after that strange ill
> We called the "new acquaintance," and how soon
> You were yourself again.

The "new acquaintance" is a very old acquaintance now, but we know very little more about it than the good folk of Edinburgh did in 1562.

"CATARRHAL FEAVER."

Passing to the next century we have a description of "a catarrhal feaver epidemical in the middle of the spring," by "that renowned and famous physician" (as he is styled on the title page of his *Practice of Physic*), Thomas Willis. He says:

> About the end of April (1658) suddenly a distemper arose, as if sent by some blast of the stars, which laid hold on very many together; that in some towns, in the space of a week, above a thousand people fell sick together. The particular symptom of this disease, and which first invaded the sick, was a troublesome cough, with great spitting; also a catarrhal falling down on the palat, throat, and nostrils; also it was accompanied by a feaverish distemper, joyned with heat and thirst, want of appetite, a spontaneous weariness, and a grievous pain in the back and limbs; which feaver, however, was more remiss in some, that they could go abroad and follow their affairs in the time of their sickness, but complaining in mean time of want of strength and of languishing, a loathing of food, a cough

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[1] Published by the Sydenham Society in 1852. A new and revised edition was issued by the author's son, Dr. Symes Thompson, in 1890 (Rivingtons).

> and catarrh. But in some a very hot distemper plainly appeared, that being thrown into bed they were troubled with burning thirst; waking, hoarseness and coughing almost continual; sometimes there came upon this a bleeding at the nose, and in some a bloody spittle, and frequently a bloody flux. Such as were indued with an infirm body, or men of a more declining age, that were taken with this disease, not a few died of it; but the more strong, and almost all of an healthful constitution, recovered. Those who falling sick of this disease and died, for the most part died by reason of the strength being leisurely wasted, and a serous heap more and more gathered together in the breast, with the feaver being increased, and a difficulty of breath, like those sick of an hectic fever.

Willis's description of the nature of the "procatartic cause," pathology, and treatment of the mysterious "feaver" has no particular interest now, but in the observation of clinical signs it is clear that he would not have had much to learn from us.

The "Epidemic Cough."

A few years later we have a brief description of an "epidemic cough" of peculiar character by our English Hippocrates, Sydenham. Writing of the year 1675 he says:

> Then it was that coughs prevailed in greater number than at any other time within my remembrance. No one escaped them whatever might be his age or temperament, and they ran through the whole families at once. Nor were they only remarkable for their frequency, this being the case every winter. They were remarkable on account of the accidental dangers which they brought upon those they affected. The constitution of both the present time and the whole of the previous autumn exerted itself to the utmost in the production of the epidemic fever already described. and besides this there was no other epidemic disease by the antagonism whereof the activity of the present one might be traversed in even the least degree. Hence the coughs paved the way to fever and passed without difficulty into it. Meanwhile just as the coughs helped the constitution in producing the fever, so also was the fever determined by the cough to the lungs and pleura. These it attacked just as a week before it had attacked the head. The sudden change inclined the unthinking to consider the fever as either an essential pleurisy or an essential peripneumony. Yet it was neither more nor less than what it had been throughout.

Sydenham clearly differentiated this "epidemic cough" from ordinary catarrh, and in regard to treatment he said that "it is not the cough alone that must be attended to."

A "Most Compleatly Epidemic" Disease.

In the eighteenth century, John Huxham records a strange epidemic with which Plymouth was visited in 1733:

> About this time a disease invaded these parts, which was the most compleatly epidemic of any I remember to have met with; not a house was free from it; the beggar's hut and the nobleman's palace was alike subject to its attack, scarce a person escaping either in town or country; old and young, strong and infirm, shared the same fate. Finding it to prevail so much, and with so great force—insomuch that sooner or later it had spread almost all over the country—I resolved to commit a succinct history of the disease and its appearances to writing, with which I now present the reader.
>
> This distemper had raged in Cornwall and the western parts of Devonshire, from the first coming in of this month (February), but did not reach us at Plymouth till about the 10th, which was on a Saturday, and that day numbers were suddenly seized. The day afterwards they fell down in multitudes, and by the 18th or 20th of March scarce any one had escaped it.
>
> The disorder began at first with a slight shivering; this was presently followed by a transient erratic heat, an headache, and a violent and troublesome sneezing: then the back and lungs were seized with flying pains, which sometimes attacked the breast likewise, and though they did not long remain there, yet were very troublesome, being greatly irritated by the violent cough which accompanied the disorder; in the fits, of which a great quantity of a thin sharp mucus was thrown out from the nose and mouth. These complaints were like those arising from what is called catching cold, but presently a slight fever came on, which afterwards grew more violent; the pulse was now very weak, but not in the least hard and tense like that in a pleurisy; nor was the urine remarkably red. but very thick and inclining to a whitish colour; the tongue, instead of being dry, was thick, covered with a whitish mucus or slime; there was a universal complaint of want of rest, and a great giddiness. Several likewise were seized with a most racking pain in the head, often accompanied with a slight delirium. Many were troubled with a tinnitus aurium, or singing in the ears, and numbers suffered from violent earache or pains in the meatus auditorius, which, in some, turned to an abscess; exulcerations and swellings of the fauces were likewise very common. The sick were, in general, given very much to sweat, which, when it broke out of its own accord, was very plentiful, and continued without striking in again, did often in the space of two or three days wholly carry off the fever; the urine depositing a copious, whitish, or yellowish-coloured sediment, but very seldom a reddish one: numbers, however, had great difficulty in making water, whether from their blisters or from their profuse sweats I will not take upon me to determine. The disorder often terminated with a discharge of bilious matter by stool, and sometimes by the breaking forth of fiery pimples.
>
> You have here a description of this epidemic disease, such as it prevailed hereabouts, attacking everyone more or less; but still, considering the great multitude that were seized by it, it was fatal to but few, and that chiefly infants and consumptive old people.
>
> It generally went off about the fourth day, leaving behind a troublesome cough, which was very often of long duration; and such a dejection of strength as one would hardly have suspected from the shortness of the time; but this chiefly happened where there had been an imprudent and untimely use of the lancet.

Huxham says that the affection (which he calls a "feveret") was rarely mortal, "unless by some very great error arising in the treatment of it." He adds these words, which show his acuteness as a clinical observer:

> However, this very circumstance proved fatal to some who, making too slight of it, either on account of its being so common, or not thinking it very dangerous, often found asthmas, *hectics*, or even consumptions themselves the forfeiture of their inconsiderate rashness.

Modern Epidemics.

Altogether from 1693 to 1790 eleven severe epidemics of influenza occurred in this country. The outbreak in 1782 was considered of sufficient importance to form the subject of an investigation by the Royal College of Physicians of London. The College issued a public advertisement asking all physicians in the three kingdoms to furnish all the information in their power "relative to the late influenza." On the replies a report was based, which may be found in the *Transactions of the Royal College of Physicians*, vol. iii. It is interesting as showing the identity of character of the disease with the scourge as we know it now, but it throws little light on its causation.

In the present century epidemics have occurred in 1803, in 1831, in 1833, in 1836, in 1847, and in 1874, without counting the series which began in 1889-90. In 1837 influenza formed the subject of an investigation by our own Association. The Council of the Provincial Medical Association, as it was then called, issued a circular to its members asking for information as to the origin, progress, and duration of the epidemic, its symptoms and treatment, and the atmospheric phenomena attending and preceding it. Much valuable information was collected in this way, and was embodied in a Report upon the Influenza or Epidemic Catarrh of the Winter of 1836-7, drawn up by Robert J. N. Stretten, M.D., and published in the *Transactions* of the Provincial Medical Association, vol. vi (London, 1838). But this report did not do much to elucidate the problem, and indeed, neither the College of Physicians nor the early Fathers of the Association can be said to have advanced the question much beyond the theory propounded by Molyneux in the seventeenth century, that the cause of influenza was to be sought in "something subtle and occult" in the atmosphere. Indeed, without accepting the somewhat malicious suggestion of Mrs. Carlyle—herself a victim of the scourge in 1847—that "influenza" is not a disease, but a comprehensive name invented by the doctors to save them the trouble of making a diagnosis, we may be allowed to express a doubt whether even now we may not say with Sydenham:

> Concerning the nature and quality of that disposition of the air on which the disease depends, as well as of many other things on which the doting and arrogant crowd of philosophers trifle, we are totally ignorant.

CONTRACT MEDICAL PRACTICE.

Eastern Valley Medical Association.

We are informed that at the meeting of this Association, which has been especially formed for the discussion and mutual settlement of matters affecting the medical profession in the eastern valleys (Monmouthshire), and safeguarding the interests of the profession generally and of its own members in particular, the position of Dr. Bowker, who has recently resigned his appointment as surgeon to the Cwmbran collieries, was considered. Dr. Bowker's resignation is due to a refusal on the part of the workmen to agree to an increased stoppage of one penny in the pound, which has already been accepted by the majority of the works and collieries in the district. The following resolutions were adopted:

> That the secretary write to various medical societies, requesting them that in the event of an advertisement appearing for the position of surgeon to any colliery or works in the Eastern Valley, and especially the Cwmbran colliery, that they will use their influence to dissuade intending applicants for the appointment.
>
> That intending applicants for the vacant post be requested to communicate with the Honorary Secretrry, A. B. Avarne, Crossfield House, Blaenavon, Mon.

The next examination for the certificate in nursing and attending on the insane of the Medico-Psychological Association of Great Britain and Ireland will be held on **May 1st.** Schedules to be filled up by candidates can be obtained of the Registrar, Dr. Spence, Burntwood Asylum, near Lichfield, to whom they should be returned not later than April 3rd.

THE PREVENTION OF TUBERCULOSIS.

CARLISLE.

ON March 2nd a public meeting was held in the Town Hall, Carlisle, for the purpose of considering the desirability of forming a branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis for the Cumberland. The meeting had been convened by the Lord Lieutenant (Lord Muncaster), the High Sheriff (Mr. G. G. Kirklinton), the Mayors of Carlisle, Workington, and Whitehaven, and the Chairman of the County Council. The High Sheriff presided, in the absence of the Lord Lieutenant, and there was a large and influential gathering from all parts of the county, including the Bishop of Carlisle; Dr. R. W. Philip, Edinburgh; Canon Rawnsley, Crosthwaite; Mr. Howard, Greystoke (Chairman of the County Council); Dr. Lockie, Carlisle (Chairman of the Provisional Committee); Dr. Barnes and Mrs. Barnes, Carlisle; Dr. Bird, Carlisle (Hon. Secretary of the Provisional Committee); Dr. Highet, Workington; Dr. Muriel, Whitehaven; Dr. Graham, Carlisle; and many others.

After some introductory remarks the High Sheriff introduced Dr. R. W. Philip of Edinburgh, who said there was a special fitness in this meeting in Carlisle, because it was only some two and a-half years ago that the British Medical Association partook of their kind hospitality, and the Association passed two resolutions regarding the prevention of tuberculosis. These resolutions had become famous, and were known nowadays as the "Carlisle Resolutions." They had not been barren in any sense, because based on these resolutions a Special Committee of the Association had framed, and the British Medical Association had issued, a report which he ventured to commend to their consideration. The National Association was the outcome of a big wave which was passing over, not only this country, but the world, with regard to the disease, a wave which had influenced the citizens as well as the doctors. The National Association recognised that for a successful campaign against the enemy there must be available a large amount of information, and it proposed to scatter such information widely amongst the community. In order to do this the Association must be national in every sense of the word, and representative also, and it would have the powerful support of the medical profession and of the representatives of veterinary medicine, and this, having regard to the intercommunication of the disease between animals and man, was a matter of the first importance. He described the methods the Association desired to follow and the measures to be adopted in the district, and he made special reference to the reception and treatment of the poorer classes. He would like to see the establishment of a tuberculous colony, where patients for a much longer period than could be kept in hospital might live under better climatic conditions and still contribute their particular work for the good of the community. This was not a chimerical conception; he had had a certain amount of practical experience of this on a small scale. Hospitals should also be established for the admission of dying cases of tuberculosis. Mere elevation had little to do with the cure of the disease. On behalf of the National Association he begged leave to invite the citizens of Carlisle and the inhabitants of the county of Cumberland to make common cause with those who had undertaken to combat the disease.

The Chairman said he had omitted to say that some £600 or £700 had already been subscribed without an appeal being made.

The Bishop of Carlisle moved the first resolution:

That a branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis for the county of Cumberland be and is hereby formed.

Dr. Highet (Workington) seconded the motion. He said by all means let them get rid of tuberculosis in cattle if they could; let them see that their milk supply was above suspicion, and that their meat was pure and untainted; but let them remember that even if they provided a sanatorium for the better treatment of tuberculous disease, there would still remain that great susceptibility to diseases of that description which were found in badly ventilated and overcrowded workshops, and particularly in the dwellings of the very poor, which were a disgrace to nineteenth-century civilisation. He believed that providing better houses for the very poor they would get better results than from Direct Vetoes and Permissive Bills.

After some discussion the resolution was put and carried unanimously.

Mr. Crowder proposed the second resolution:

That the office-bearers of the branch shall consist of patrons, president, vice-presidents, treasurer, and honorary secretary.

This was carried unanimously.

Mr. John Milburn (Workington) proposed the third resolution:

That in order to carry out the objects of the branch a local committee be formed in each sanitary district of the county, consisting of the members of the branch resident in each district.

The resolution was carried unanimously.

The Mayor of Whitehaven proposed:

That an Executive Committee be appointed, to consist of fifteen members elected at the annual general meeting of the branch, and one representative appointed by each District Committtee; the President, Treasurer, and Secretary to be *ex-officio* members of the Executive Committee.

This resolution was carried unanimously.

Canon Waterton moved:

That the Executive Committee shall direct the affairs of the branch, subject to the control of the annual meeting of members, shall obtain approved public lecturers, collect subscriptions, diffuse literature relating to the prevention of tuberculosis, and promote the establishment, on a partially self-supporting basis, of open-air sanatoria for tuberculous patients.

Dr. Barnes, in seconding the resolution, said in Cumberland there was special need to take action in the matter, because a very large number of deaths took place from tuberculosis every year. He had during the last few years visited sanatoria in various parts of Europe and America, and he did not think anything tended more to the prevention of tuberculosis than the existence of those institutions. He considered the provision of a sanatorium one of the great needs of the future. In Carlisle last year there were 129 deaths from tuberculosis, while from eight other zymotic diseases there were only 103. The Corporation of Carlisle would, he thought, be exercising a useful function if they tried to prevent deaths from tuberculosis.

Mr. J. C. Dove proposed:

That the following be the office-bearers of the branch for the ensuing year:—Patron: The Right Hon. Lord Muncaster. President: The Right Rev. the Lord Bishop of Carlisle. Vice-Presidents: The Right Hon. the Speaker of the House of Commons (W. C. Gully, Esq.), the High Sheriff of Cumberland, the Right Rev. the Bishop of Barrow-in-Furness, the Ven. Archdeacon Prescott, the Rev. Canon Richmond, the Ven. Archdeacon Diggle, the Rev. Canon Waterton, the Rev. J. Christie, the Rev. B. Burrows, Sir R. J. Graham, Bart.; His Honour Judge Hills, His Honour Judge Steavenson, the Mayor of Carlisle, the Mayor of Workington, the Mayor of Whitehaven, Sir H. R. F. Vane, Bart.; Sir Wilfrid Lawson, Bart., M.P.; the Right Hon. J. W. Lowther, M.P.; Augustus Helder, Esq., M.P.; R. A. Allison, Esq., M.P.; the Hon. H. V. Duncombe, M.P.; David Ainsworth, Esq., J.P.; and John Stirling, Esq. Treasurer: W. I. R. Crowder, Esq., jun. Hon. Secretary: James B. Bird, Esq., M.D. That the following be the fifteen representative members of the Executive Committee: The Mayor of Carlisle (*ex-officio*). the Mayor of Workington (*ex-officio*), the Mayor of Whitehaven (*ex-officio*), the Rev. Canon Rawnsley, Henry Barnes, Esq., M.D.; Studholme Cartmell, Esq.; John Highet, Esq., M.D.; Stewart Lockie, Esq., M.D.; Jas. Macdonald, Esq., M.D.; Roderick Maclaren, Esq., M.D.; Humphrey Stenhouse, Esq.; Colonel F. R. Sewell, Joseph Bowser, Esq., M.D.; Sir John Dunne; and J. Smith Hill, Esq., B.A.

Mr. I. Teasdale seconded the resolution, which was carried, and the usual votes of thanks brought the meeting to a close.

In the event of the branch proceeding to the establishment of a sanatorium in Cumberland for the treatment of the poor or persons of small means suffering from consumption, the following donations have been promised towards that object: Anonymous (per Studholme Cartmell, Esq.). £400; Isaac Teasdale, Esq., Carlisle, £100; Dr. Lockie, Carlisle, £100; William Walker, Esq., Whitehaven, £100; Mrs. Ford, Fisher Street, Carlisle, £10 10s.; Dr. Rowland Thurnam, Nordrach-in-Mendip, £5 5s. The following donations have been promised towards the funds of the branch: Sir John Dunne, £10 10s.; the Mayor of Whitehaven, £5 5s.; and Wm. Walker, Esq., Whitehaven, £10.

St. George's Hospital.

At a meeting of the Weekly Board held on Wednesday, March 8th, it was unanimously resolved, on the recommendation of the medical staff, that in future contracts for milk a clause should be inserted providing that it should be supplied only from animals which have been duly certified to be free from tubercle.

LITERARY NOTES.

Messrs. Oliphant, Anderson, and Ferrier will shortly publish a book by Dr. Elmslie, medical missionary in Livingstonia, entitled *Among the Wild Ngoni*. Lord Overtoun will contribute an introduction, and the volume will contain sixteen illustrations from original photographs of missionary scenes and portraits.

Our French friends appear to be beyond hope of salvation in the matter of English titles. In the *Bulletin de l'Académie de Médecine* of February 28th it is announced that "Sir Lister (de Londres)" has been elected a Foreign Associate of that distinguished body. That this is not a slip of the pen—or the printer—is shown by the fact that Lord Lister's title appears in this form no fewer than three times.

An Account of the Proceedings of the Fourth International Physiological Congress held at Cambridge, England, August 23rd to 26th, 1898, has been issued as a supplement to the twenty-third volume of the *Journal of Physiology*. The supplement, which is issued by the Physiological Society of Great Britain, is edited by Mr. Leonard Hill. It consists for the most part of brief accounts of the demonstrations given or the papers read during the Congress; but in some instances the editor is reduced to the necessity of printing the title of the communication without any indication of its scope. The notes are printed in the original language of the contributor, so that the fasciculus is of a decidedly polyglot character. It affords an interesting memento of a successful gathering.

The King's Medicines for the Plague, Prescribed for the Yeare 1604 by the whole Colledge of Physitians, both Spirituall and Temporall, and now most Fitting for this Dangerous Time of Infection, to be Used all England Over. London, printed for Henry Goffon, and are to be Sold by F. Coules, at his Shop in the upper end of the Old Bayly, neere Newgate, 1636. So runs the title-page of a tiny pamphlet containing some curious prescriptions for the prevention of plague. Among these are the following:

> Take three pints of Malmesie, a handfull of Rue, as much of Sage, boyle these to a quart; then strain out the herbs, and then take an ounce of Long Pepper, Vinegar, and Nutmegs, all beaten small in a Morter, and put into the Wine, and boyle it a little, then take it off, and put into it one ounce of Mithridate, two ounces of the best Treacle, and a quarter of a pint of Aqua-Vitæ, and put all into the Wine and so keepe it.

One spoonful of this was to be taken "as soone as the party doth presume himselfe infected, luke-warme," and he was "to goe to bed, and sweat two or three houres, and then dry the body well, and keepe warme, and drinke no cold drink, but warme drinke and cawdels, and posset drinke with marigold leaves and flowers." Sanitation was not altogether neglected, for the following are indicated as things which 'ought duly to be looked into," viz.:

> It is very convenient that you keepe your houses, streets, yards, back sides, sinks and kennels sweet and cleane from all standing Puddels Dunghills, and corrupt moystures which ingender stinking savours that may bee noysome or breed Infection; nor suffer no dogges to come running into your houses; neither keepe any (except it be backward in some place of open ayre), for they are very dangerous and not sufferable in time of sicknesse, by reason they runne from place to place, and from one house to another, feeding upon the uncleanest things that are cast forth in the streets, and are a most apt cattell to take infection of any sicknesse, and then to bring it into the house.

If for "dogges" in this recommendation one should read "cats," the advice might have been issued by a modern M.O.H. The "Colledge of Physitians" has also something to say in regard to "ayring your roomes," but this was to be done not by the free air of heaven, but with "charcole-fires," into which "a little quantity of frankincense, juniper, dried rosemary, or of bay-leaves" was to be put. "The King's Medicine against the Plague of the Soule," is prescribed *secundum artem*. The reader is directed to take the "herb of vertue" and the "herb of patience," to "straine these through the fine strainer of uprightnesse and integritie," to put thereunto "insteed of white ginger......the hot ginger of love towards God and thy neighbour," to "adde also a good quantity of the comfortable treacle of hope," etc., etc.

In the *Archiv für Dermatologie und Syphilis* for January Dr. Leopold Glück quotes from the *Popularia Epigrammata Medica* of Gabriel Ayala (printed at Antwerp in 1562) two pieces entitled respectively "De Lue Venereâ" and "In Morbi Gallici agnitione multos decipi." The former is interesting as showing that even in the sixteenth century syphilis was not looked upon as a new disease. Ayala says of it:

Nec novas in nostras jam nuper missus es oras:
  Es vetus, id quamvis publica fama neget.
Quippe ex quo cœpere homines contemnere summi
  Jussa Dei, indignis ausibus, ultor ades.

He admits, however, that the disease raged in his day with a violence previously unknown owing to the corruption of the age:

Ac merito hoc nostro (quo non corruptius ullum)
  Sæculo, inaudito vulnera more facis.

He rejoices in its ravages and calls upon to play the avenger on vice even more ruthlessly:

Judex, opprobrium, scortatorumque flagellum,
  Salve adeo: inque tuos utere jure tuo.

Such a prayer in the mouth of a physician may sound suspicious, but Ayala's edifying zeal for the punishment of vice is perhaps to be explained by the fact that his book is dedicated "Ad Reverendiss. ac Illustriss. Cardinalem Granvellanum." Ayala's other metrical deliverance is chiefly interesting for the earnestness with which he warns practitioners against regarding and treating every affection of the skin as "syphilitic manifestions":

Ne mihi propterea, quicunque es, ab ulcere fœdo,
  Aut scabie, aut alio stygmate, triste cane,
Syphilidemque statim clama in penetrale receptam
  Corporis, Ah, multos turpis hic error habet.
Sive lucrum, rerum sive ignorantia cæcet,
  Multorum crimen, Gallice morbe, subis.

The last line has not perhaps entirely lost its application at the present day. Syphilis is a convenient scapegoat not to the dermatologist alone, but to the neurologist.

The French are so jealous of the Germans that they will not even allow the latter the credit of having invented the Wörishofen water cure. M. Macé has unearthed a precursor of Father Kneipp, to wit one Bernard Georges Penot, who wrote a treatise, *De Aquæ Naturalis Virtute*, which was published at Berne in 1547. Penot, who was born at Port-Sainte-Marie, near Nérac, in 1521, became a Friar Preacher at Toulouse, but, having adopted the principles of the Reformation, left the Order in 1543, and died in the hospital of Yverdon, in Switzerland, in 1607. Penot anticipated Kneipp in prescribing walking on wet grass, as to the therapeutic virtues of which practice he discourses as follows:

> In the morning, when the heavenly dew has given to the earth a new freshness, you must with naked feet and legs walk two hours on the freshened sward, for the dew is the daughter of God; it carries with it a kind of mysterious virtue which scatters itself in forces through the microcosm and chases away malign influences. Be not afraid that this chilling will do any harm, for all cold is the source of all heat, and water is the vehicle of health and the paragon of life.

The ex-friar, it will be observed, is decidedly mystical, not to say misty, in his notions of health and life; but in this he was no worse than the hierophant of Wörishofen, whose pathology was, to say the least, fantastic. Penot was as great a believer in the sovereign virtues of the douche as Kneipp, and he seems to have used it in various forms, as *aspergens*, *confluens*, *ascendens*, and so forth. Later, he published two further treatises, entitled respectively *De Medico Simplici* and *Thesaurus Vitæ*, in both of which the hydrotherapeutic principles enunciated in the first work are again set forth. But, after all, may not the invention of the water cure be traced to Pindar, who exclaimed in a fine frenzy, Ἄριστον μὲν ὕδωρ?

Presentation.—Dr. George Mathieson, who recently resigned the office of senior medical officer of the Staffordshire County Asylum to enter into private practice, has been presented by the staff of the asylum with some surgical instruments and a silver inkstand as a mark of appreciation and esteem. Dr. J. W. S. Christie, the medical superintendent of the asylum, made the presentation.

Bradford and West Riding Medical Union.—A special general meeting of the Bradford and West Riding Medical Union was held at Bradford on March 2nd. The rules and by-laws drafted by the Committee were presented to the Society for consideration, and were duly approved of. The next general meeting will be held on Thursday, April 20th, at 9 P.M.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1899.

SUBSCRIPTIONS to the Association for 1899 became due on January 1st, 1899. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

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THE LONDON GOVERNMENT BILL.

THE leading principles of the London Government Bill, which has now been printed, are obvious enough. Shortly stated these principles are: To reduce with the least possible disturbance 41 metropolitan local authorities to about 29, both population and wealth being taken into account in the delimitation of the areas; to reduce likewise the number of elective members—the large constituency will not have more than 72, the smallest may have 30; to give to the boroughs thus formed the trappings and externals of the great provincial cities, but to leave with a few exceptions the actual powers pretty well as before. Although the reception of the Government measure was exceptionally favourable, yet it seems clear that it will meet with some sharp criticism from various quarters. Those who desire complete autonomy—not, perhaps, a very numerous class—will fail to comprehend why populations such as St. Pancras, Lambeth, and Islington, all more numerous than those of Bristol, Bradford, or Nottingham, should not have all the powers and privileges of county boroughs, controlling education, administering the Building Acts, and being free practically from all outside interference. A great number will consider the Bill to be a half-hearted measure; they will criticise the too obvious adroitness of the political manœuvre which would relegate the thorny task of the adjustment of areas, housing a population not far short of two millions, to a Commission; they will object to the exclusion of the City, and to the omission from the measure of any provision dealing with the Metropolitan Asylums Board.

To the medical profession, especially to those members of it who are engaged in the Public Health service, the more important question is how it will affect the sanitary administration.

For years there have been powers sufficient, in the hands of sanitary authorities, if intelligently and consistently carried out, to ensure good sanitary administration. The difficulty has been to attain this ideal. It may reasonably be hoped that the natural selection which must take place during the process of diminishing the number of local representatives will result in a distinctly higher average of intelligence and administrative ability among the members of sanitary authorities. The Bill provides that nearly all matters of purely local sanitation shall be dealt with by each borough within its boundaries. The supervision of the common lodging houses formerly carried out by the police and now by the officers of the London County Council will revert to the local authority if the Bill becomes law. The registration and inspection of dairies, and the inspection of slaughterhouses and generally of offensive businesses, will also be carried out by the borough officers, but the Bill is silent as to the licensing of slaughterhouses. The power to adopt Part III of the Housing of the Working Classes Act can hardly be consistently given without the power to carry out Part I, that is, the part dealing with large unhealthy areas. It appears to be intended that boroughs should bear the expense of improvements within their own boundaries, and that the expense of a local improvement should not fall upon the whole county.

The tenure of office of the sanitary officers in about twenty-five of the districts will be affected by the Bill. It may be that the services of a good many will be dispensed with. These will not be left to the mercies of the local authorities, for compensation for loss of office is to be awarded by the Commission, which will, without doubt, act in an impartial and judicial spirit. On the whole, an examination of the text of the Bill confirms the first impression gathered from Mr. Balfour's speech. While it is not an ideal measure, the main principles on which it is based appear to be sound.

IRISH DISPENSARY DOCTORS.

THE meeting held in Dublin last week in support of the claims of the Irish dispensary doctors, a report of which is published at page 626, was encouraging. It was large and representative, but it was especially significant because of the number of provincial medical men who were present. This exhibition of living interest in the questions to be considered was particularly encouraging to those who have laboured hard in the cause, and it is to be hoped that the dispensary medical officers will not allow themselves to fall into a hopeless lethargy regarding their own interests. They can at least inform their advocates, and in their various spheres of influence they can do something to make the new councils more sympathetic in regard to the grievances from which the doctors unquestionably suffer.

It will be seen that the resolutions, which are printed *in extenso* in our report of the meeting, fairly cover the ground. They were proposed and seconded in convincing speeches, the speakers being representative men, well acquainted with the needs of the case. Finally, a deputation was appointed to wait on the Local Government Board to press upon them the necessity of reform, and we hope that something satisfactory may result from that interview.

That there is some possibility of improvement at the hands of the new Board is shown by the rules which it has just issued in regard to dispensary doctors. The issuers of the red tickets must be the duly elected wardens, who cannot delegate the power to others, or leave tickets signed in blank. A guardian, warden, or relieving officer who has issued a ticket for medical relief, on being furnished with additional trustworthy information, showing that the sick person for whom the ticket was issued is not a poor person within the meaning of the Act, shall be at liberty to withdraw the ticket. An important rule provides that each medical officer shall be allowed an annual vacation not exceeding four weeks, and that the guardians shall pay to the medical officer employed temporarily to discharge the duties of the medical officer for that period such reasonable remuneration for his services as the Local Government Board shall approve or direct. This is a concession long withheld. The wonder is that it has taken fifty years to gain it, notwithstanding that its perfect fairness has always been manifest. Other claims are not less strong, although they are resisted; and the new Local Government Board will do something to signalise the difference between itself and some of their hard, mechanical, and unimaginative predecessors, if it makes a real effort to set the whole Poor-law medical system of Ireland on a proper basis.

SECRET COMMISSIONS.

The London Chamber of Commerce has this week issued a report on Secret Commissions. The report has been prepared by a Special Committee, and is founded, it is stated, upon the replies received from members of the Chamber, various trade associations, other chambers of commerce, and from the general public, in response to a letter which was published in various trade papers and the press generally. The report deals mainly with trades, but one of its earlier paragraphs runs as follows: "Your Committee conclude from the evidence before them that secret commissions in various forms are prevalent in almost all trades and professions to a great extent, and that in some trades the practice has increased, and is increasing; and they are of opinion that the practice is producing great evil, alike to the morals of the commercial community and to the profits of honest traders."

So far as regards the medical profession, its inclusion among the professions which accept commissions appears to be founded upon two statements received by the Committee. One was made by a pharmaceutical chemist who wrote that "secret commissions are given by chemists to medical men on their prescriptions supplied to patients, in some cases amounting to from 25 to 50 per cent. on the price charged by the dispensing chemist." The other statement was from an "optician, jeweller, and silversmith," who said that he had about fifty years' business experience. He wrote that "it is an open secret that hospital doctors received commissions from makers of surgical instruments," and he also stated that "recently a man of scientific eminence in Scotland received a very large commission for recommending a certain make of microscope."

The report contains certain recommendations, one of which is: "That all professional and trade bodies (such as those representing the medical, legal, artistic, and other professions and trades), be recommended to make an emphatic declaration on the subject of secret commissions, and adopt the course already taken by the Royal Institute of British Architects, the Institution of Civil Engineers, and other bodies by inserting into their by-laws a stipulation that any member guilty of the pernicious practice will be expelled the Society by the Council. In order to make such a provision effective this would require the aid of the general public, as well as of the members of the several professions and trades."

In a note to their report the Committee state that the greatest care has been taken to see that the statements contained in the appendices, from one of which we have quoted, have been made on reliable authority, but disclaim any responsibility for their absolute accuracy.

We may say at once that we think that this disclaimer is very necessary in regard to the statements which have been spread broadcast in this report to the disadvantage of the medical profession. In response to some inquiries upon the point, we have received a number of letters from medical practitioners—both surgeons and others—none of whom have ever heard of the granting of commissions by surgical instrument makers. Indeed, one surgeon of large experience writes: "I have never known of the suggestion even of the offer of a commission by an instrument maker to a hospital surgeon, and do not believe it is ever made. On the other hand, I have known surgeons charged for the making of special instruments which afterwards brought great profit to the makers."

Nor can we find that offers of commission are made by chemists or accepted by medical practitioners. One physician writes to us: "As a matter of convenience I send my patients to one particular chemist in whom I have confidence, but I have never received anything in any shape or form from him, and he regularly sends me in his bill for all drugs and medicines I have for my personal use." It is, we believe, the custom of pharmaceutical chemists to charge medical practitioners the minimum price for medicines supplied for their own use and for that of their families, but this is an act of courtesy and cannot be placed in the same category as a secret commission.

It is of course impossible to affirm of a large profession that the conduct of all its members is unimpeachable in this respect, but we believe ourselves to be in a position to assert that no such practice as is suggested of receiving commissions from chemists and surgical instrument makers prevails or is common. At the same time, if it can be shown that the practice of receiving secret commissions exists even to a limited extent, we have no doubt that the medical colleges and other licensing bodies would be quite ready to make an emphatic declaration on the subject.

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THE PRESIDENCY OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

Sir Samuel Wilks has caused it to be understood that he does not desire to be re-elected President of the Royal College of Physicians, an office which he has held for the past three years. His decision has occasioned not a little regret, but it is recognised that he has well earned his right to repose, and that during his term of office as President he has greatly increased the debt of gratitude which the profession owes to him. The election of President takes place annually on the Monday after Palm Sunday, that is this year on March 27th. Among the many Fellows who are eligible for election opinion seems to have turned most generally to two, Sir William Broadbent, Physician-in-Ordinary to the Prince of Wales, and Consulting Physician to St. Mary's Hospital, who became a Fellow in 1869; and Dr. W. S. Church, Senior Physician to St. Bartholomew's who was elected a Fellow in the following year. Other names which have been mentioned are those of Dr. W. H. Dickinson, Consulting Physician to St. George's Hospital, who became a Fellow in 1865; and Dr. S. J. Gee, Physician to St. Bartholomew's Hospital, who became a Fellow in 1870. It is understood that Dr. J. E. Pollock, whose name has also been mentioned, would not be willing to accept the office. The mode of election, as laid down in the bylaws, is as follows: "At the meeting assembled for the election of the President .... every Fellow present shall, without any formal proposal or nomination, write down and place in the urn the name of one of the Fellows qualified to be elected whom he votes for as President..... If the name of one of the Fellows shall have thus been placed in the urn by two-thirds of the Fellows present, he shall thereby be elected; otherwise the two names having the highest numbers shall be balloted for."

THE LEAGUE AND ORDER OF MERCY.

THE success of the Prince of Wales's Fund must profoundly interest the medical profession, and we believe that at any rate most of the members of the profession share the opinion, which we have freely expressed, that up to the present time such success has not been obtained. The Fund has not yet attracted to itself the very class which it was formed to reach, that is to say, those who have not hitherto subscribed to any hospital. We have also expressed the opinion that in order to do so, something in the nature of house-to-house collection—or at any rate, some local means—would be necessary. Now this is the general aim of the scheme entitled "The League of Mercy," which was commenced by an enthusiastic meeting, presided over by His Royal Highness, and reported in the daily papers of March 2nd. We should be inconsistent, indeed, with our previous utterances if we did not recognise the admirable motives by which the Prince is actuated, and wish him every success. There are, it is true, several dangers and drawbacks to such a scheme. Sir W. Hart Dyke at the meeting pointed out one: the difficulty of keeping the collection reserved entirely for the Fund and preventing the diversion of any part of it to local charities. Another, no doubt, is the nuisance of genteel collectors being thus let loose to invade everyone's privacy and compel him to "stand and deliver." Still, these and similar objections can be comparatively easily met. The part of the scheme which, we frankly say, we like least is the "Order." It may be necessary to hold out to gentlemen and ladies these small distinctions and decorations in order to enlist them in a charitable effort which they would not undertake for charity apart from such reward; but if so, it is an ugly necessity. We could have wished that the scheme of the League of Mercy had been started on its own merits. Its success must depend on very careful handling. The inconveniences and scandals which made the "snowball" system offensive to the public must be avoided, and this scheme (as one of its chief supporters points out to us in a private letter) bears a striking resemblance to that system. Again, if it sets men and women hunting for decorations it will, we fear, fall into public ridicule. But the object of the League is good, and under wise guidance it may be made very effective. Such guidance we heartily pray that it may obtain.

WESTERN MEDICINE IN INDIA.

THE Viceroy of India said many graceful and true things about medical science in his speech at the annual meeting of the Countess of Dufferin's Fund in Calcutta for giving medical aid to the women of India, on March 3rd. After saying that the British had come to India as conquerors indeed, but as benefactors also, bringing religion, law, literature, and science as gifts in their hands; and after admitting that there might be two views about the three gifts first mentioned, he said of science, and of medical science in particular: "Now I come to the last boon, of science, and medical science in particular. About this no two opinions can possibly be entertained. There may be prejudices and scruples arising from long custom, ignorance, or other causes, but doubts there cannot possibly be; and I say this, that if we had come back to you from the West with our medicine in our hand, and with that alone, we should have been justified in our return. For what is this medical science we bring to you? It is no mere collection of pragmatical experimental rules. It is built on the bed-rock of pure, irrefutable science; it is a boon which is offered to all, rich and poor, Hindu and Mohammedan, woman and man. It lifts the *purdah* without irreverence. So far as I know, it is the only dissolvent which breaks down the barriers of caste without sacrilege. Medical science, indeed, is the most cosmopolitan of all sciences, because it embraces in its merciful appeal every suffering human being in the world. Now, our Anglo-Indian poet Kipling—I claim him as an Anglo-Indian, though he is also the property of the world—in his latest poem, and I hope and pray—and I am sure you join in that prayer—that it will be by no means his last, has thus written:

> Take up the White Man's burden—
> The savage wars of peace,
> Fill full the mouth of famine,
> And bid the sickness cease.

Well, this part at any rate of the White Man's burden, this portion of the bounty of the Aryans of the West, has not been ignored by the British in India, and in my view every hospital we build in this country, every doctor we train, every nurse we turn out, every patient we cure, is part of the service that we owe to India; is an element of our duty in this country; is part of the home-coming gift which the Aryans of the West have brought back to their kith and kin." This tribute is as well conceived as it is generous, and we would venture to hope that Lord Curzon of Kedleston perceives the full significance of the words he uttered. Science, if it is really to do for a people the work which he sees it to be its duty to do, must be a living thing, a vital principle in the minds of men; and if it is to be all this it must not be represented by a dead routine, the mechanical application by over-taxed men of principles worked out by others. The Indian Government has been in the past too much disposed to live upon borrowed capital, to accept tardily the scientific results achieved by workers elsewhere. It has not taken the share which belongs to it in scientific investigation, nor has it given very hearty encouragement to those of its servants who have shown an aptitude for original work in science. Where is the wisdom or the policy of detailing a man for six months or a year on special duty to attack a problem which might well absorb all the energies of a lifetime? Science is cosmopolitan, but conditions of life vary, and under new conditions even familiar problems present themselves under new aspects. We have welcomed certain recent indications that the Government of India is beginning to realise that it is under an obligation to contribute to the advance of science, and not to rest content merely with the application of discoveries made elsewhere. We trust that the enlightened views which the Viceroy holds may tend to confirm this tendency, and to establish it as a principle of Government.

THE CHAIR OF PHYSIOLOGY IN THE UNIVERSITY OF EDINBURGH.

THE Curators of Patronage, by whom the appointment of a Professor of Physiology in the University of Edinburgh, in succession to the late Dr. Rutherford, will be made, have now intimated that applications, with relative testimonials, must be lodged with Mr. R. Herbert Johnston, W.S., 66, Frederick Street, Secretary to the Curators, on or before May 20th next. By the Universities Act of 1858 the patronage of seventeen chairs—of which the

Chair of Physiology is one—previously in the gift of the Town Council, was transferred to seven curators—three nominated by the University Court and four by the Town Council. The curators hold office for three years. The names of the present curators are Principal Sir William Muir; the Right Hon. J. P. B. Robertson, LL.D., Lord Justice-General for Scotland; and Patrick Heron Watson, M.D., LL.D., elected by the University Court, while the following four curators are elected by the Town Council: the Right Hon. Lord Provost Mitchell Thomson; Lieutenant-Colonel Alexander Forbes MacKay; Sir James Alexander Russell, M.B., LL.D.; and George Auldjo Jamieson, C.A. We understand that already the following gentlemen are candidates for the vacant chair: Professor E. A. Schäfer, F.R.S., Jodrell Professor of Physiology in University College, London; Dr. William Stirling, F.R.S.E., Brackenbury Professor of Physiology and Histology, Owens College (Victoria University), Manchester; Dr. Diarmid Noel Paton, F.R.S.E., Lecturer on Physiology in the Extra Academical School of Edinburgh; Dr. E. Waymouth Reid, F.R.S., Professor of Physiology, University College, Dundee, and Dean of the Faculty of Medicine of St. Andrews University; and Dr. E. W. Wace Carlier, Senior Assistant to the late Professor Rutherford. Dr. Carlier is at present giving the lectures in Physiology in the University. The emoluments of the chair will in future, we understand, be of the annual value of £1,400.

TUBERCULOSIS IN RAILWAY CARRIAGES.

During the winter, 1890-91, considerable attention and some alarm were aroused by the discovery by W. Prausnitz of virulent tubercle bacilli in the railway carriages running between Meran and Berlin. His researches were based on observations on the dust of four carriages. At first sight it might seem that the importance attending the discovery of tubercle bacilli in railway cars is not of the same degree as that associated with their presence in dwelling-rooms; the sojourn in a railway carriage being comparatively short and the air being frequently renewed. On the other hand, however, the cubic space of a railway carriage is limited, it is very apt to become contaminated by the frequent stirring up of dust by the movement of its occupants, the ventilation in many cases is inadequate and inconvenient, while the cleansing is not always effectively carried out, and is in many instances hindered by the style of upholstery indulged in. Dr. Petri has carried out in the laboratory of the Imperial Sanitary Bureau at Berlin an extremely extensive and exhaustive research on the presence of tubercle and other pathogenic bacilli in railway carriages, the number of germs found in different compartments, and the cleaning found adequate for removing them. As might have been expected, these experiments showed that undoubtedly the chief source of pathogenic micro-organisms, and particularly of tubercle bacilli, was the expectoration scattered on the floor of the carriages. Of 91 animals which were inoculated with the sputum, 28, or 30.8 per cent., succumbed to disease produced by the inoculated material. The other 63 animals were killed at the end of six weeks, and of these 3 were found to be suffering from tuberculosis, manifestly due to the inoculation. In the 28 animals which died the following pathogenic bacteria were discovered: Staphylococcus pyogenes, albus and aureus; streptococcus pyogenes; the bacillus of the pseudo-tuberculosis of Eberth; and the bacilli of mouse septicæmia. The part of the carriage most infected was always the floor, and this was always more marked in the third and fourth than in the first and second classes. It was found that the ordinary process of disinfection did not produce a notable diminution in the number of germs, and that although the carriage might look very clean the only result obtained was a diminution in the rate of development. This unsatisfactory result was the more disappointing, as the method of disinfection costs a considerable sum; in the case of a coach made up of five first and second class carriages, which had not been cleaned for some time, it amounted in round figures to 69 francs. Dr. Petri and his assistants have formulated definite conclusions, and the Prussian Minister of Public Works has issued an order giving full details as to the method and time proper for cleaning and disinfecting railway carriages, waiting rooms, and platforms. It is published *in extenso* in a recent number of the *Revue d'Hygiène*, and it might be well worth the attention of the National Association for the Prevention of Consumption. The filth of railway staircases and platforms, the utterly inadequate and unsatisfactory method of ventilation, the stuffy plush cushions in the first class, the absence of proper spittoons in the smoking and third class carriages, and the inefficient cleansing generally, are all points that should be brought before both the public and the directors of railway companies. The dirt of suburban carriages and staircases tends rather to increase than diminish, while in the cars of American pattern the windows are constructed, for some unknown reason, so as to open only a few inches, and then only from the bottom. In this way a small supply of cutting air comes direct on to the unfortunate traveller's body, while the upper stratum in which he breathes is left unchanged. Not only is the crowded and dusty air of railway carriages responsible for the conveyance of specific germs, but its contamination with human exhalations predisposes travellers to the "colds" which are frequently attributed, wrongly, to an open window. At the end of a two hours' journey in a luxurious (!) drawing-room car, the sleepy, haggard faces of the occupiers are eloquent of the semi-asphyxia to which they have been exposed. In such a condition they are certainly well prepared for the reception of the tubercle and other pathogenic bacteria which Dr. Petri's researches show to be present in all railway carriages.

CONSTRUCTIVE MURDER.

Another judge, Mr. Justice Darling, has made an attempt to remove or minimise the absurdity of the law in cases of constructive murder in his charge. To the grand jury at the Chester Assizes on March 6th he referred to a case in which the prisoner was charged with the murder of a woman, whose death was alleged to have resulted from an illegal operation performed upon her by the prisoner, and according to the report in the *Daily News* told the grand jury that there was no doubt about the law, that any person performing such an operation and thereby killing another person was guilty of murder. He observed that several persons had recently been convicted of murder in similar circumstances, and that the sentences of death which had been passed had not been carried out, it being well known at the time that they would not be carried out. It was not well that the highest penalty which man had in his power to inflict should be gravely decreed against people with the full knowledge that the whole proceeding was nothing but a sham from the moment the trial began. He advised the grand jury to assist in putting an end to those unsatisfactory, and from some points of view ridiculous, performances; if they thought that the person who inflicted the wound wished to kill the woman, or did not care whether he killed her or not, then they would find a true bill, and he would be tried for murder. But if the prisoner only meant to procure abortion, and in the doing of that he did what he did not mean to do—namely, kill the woman—then he would advise them not to return a true bill for murder. He added that "he had taken care that another bill under the statute which made it a punishable offence to procure or attempt to procure abortion, should be presented to them." It appears to us that the course taken by Mr. Justice

Darling is open to objection on two or three grounds. If the facts placed before the grand jury amount in law to a *primâ facie* case of murder, it is their bounden duty to bring in a true bill, for they will clearly violate the oath which they have taken if they return no true bill on the ground that the law, as it now exists, is repugnant to them. Further, the direction by the judge that they may so act forms a very dangerous precedent, inasmuch as it may lead juries to believe that they may disregard their oath in cases in which it appears to them that the law should be altered. If the prisoner be only charged with procuring, or attempting to procure, abortion, evidence which would otherwise be admissible against him will be excluded, as was pointed out in the BRITISH MEDICAL JOURNAL of December 3rd, 1898. In the criminal law practice and procedure ought to be certain and uniform, and it is not at all probable that all or any of the other judges will adopt the course taken by Mr. Justice Darling in this case. However desirable it may be to put an end to the undignified and indeed absurd positions in which judges and juries are placed in such cases, we feel sure that the only satisfactory way to achieve such a result is by an Act of Parliament amending the law of constructive murder.

THE LABORATORY OF THE SCOTTISH ASYLUMS.

THE second annual report of the Pathologist to the Laboratory of the Scottish Asylums has just been issued. Sixteen asylums now contribute to the scheme, but the Board of Management is hopeful that all the asylums of Scotland will yet join in this most important work, inasmuch as increase in the scientific knowledge of insanity must tend to a wiser and better treatment of the insane. Dr. Rutherford, of the Crichton Institution, Dumfries, succeeds Dr. Yellowlees as Chairman of the General Board. Dr. Clouston has been reappointed Treasurer and Chairman of the Special Executive Committee. During the past year 33 reports had been made on material sent for investigation; 5 assistant medical officers of the associated asylums had received a laboratory course of instruction; 2 other gentlemen, not attached to any of the asylums, had also, with the permission of the Committee, been given the laboratory course. Asylum demonstration sets had been sent out 51 times. Assistance of various kinds had been rendered to several gentlemen who had been making special investigations. The normal histology of the cortical nerve cells and their morbid alterations, more especially in cases of acute insanity, had been the chief original research of the pathologist during the past year. To Dr. Ireland they had been indebted for the loan of a large number of British and foreign neurological journals for the use of the laboratory. Much careful scientific investigation had been done in consequence of the stimulating effect of the laboratory.

THE MIDDLESEX HOSPITAL NEW SCHOOL BUILDINGS.

THE Middlesex Hospital now possesses a series of new class rooms and laboratories of the very highest excellence. These new buildings are arranged in two main blocks, one facing into the hospital garden the other into Union Street. On the ground floor of the first block a handsome vestibule leads to a room for the official work of the school, and to a room for instruction in public health; it also connects the old buildings with the new. From the vestibule one passes into a series of rooms for chemistry, a large laboratory, a lecture room, and a private room beyond. The laboratory is arranged for 35, the lecture room for 50. Above, on the first floor, are the rooms for pathology; a spacious class room arranged both for practical work and for lectures, a bacteriological laboratory for advanced work, and a private room beyond. From this department there is direct access to the *post-mortem* room. The mezzanine floor provides an anatomist's room, a dark room for photography, and other accommodation. In the basement there are three anatomical rooms, which are connected by an electric lift with the dissecting room on the top floor. This room, 75 feet long, is warmed with hot water, ventilated with electric fans, and lit from above, and also by movable pendants of electric light. The floor is of terrazza stone, the tables are of glass, and the walls are panelled with slate for diagrams. On the same floor are the demonstrators' private room and a large room for the practice of operative surgery. The Union Street building is all of it given over to physiology. On the ground floor are three rooms—one for quantitative analyses, another for independent work, and a third large room for general class purposes. On the first floor there is a very large room for practical work, and a private room containing a small dynamo, whence a shaft will run the whole length of the work room, supplying motor power to revolving cylinders. The buildings are well designed, details have been carefully thought out, and the latest improvements have been adopted. Sir Charles Bell in 1836 wrote: "We have founded a school in the garden of the Middlesex Hospital. The building will be a complete little thing. You cannot imagine a prettier thing than that school." What would he say now if he could see these new buildings?

INFLUENZA AND DIPHTHERIA IN LONDON.

IT is satisfactory to note that there was a slight decline last week in the mortality from influenza in London. The deaths directly attributed to this disease, which had increased from 22 to 113 in the four preceding weeks, declined to 97 during the week ending Saturday last, March 4th. Twenty-four of these were of persons aged less than 40 years, 28 of persons aged between 40 and 60 years, and 45—or nearly one half—were of persons aged upwards of 60 years. The disease continues to be exceptionally prevalent in West London, especially in Kensington, Fulham, and Chelsea. On the other hand, there was a marked increase in the mortality from diphtheria in London, 49 fatal cases being recorded, against 40 and 29 in the two preceding weeks. Of these 49 deaths, 5 were of persons belonging to Bethnal Green, 4 to Fulham, 3 to St. Marylebone, 3 to St. Pancras, 3 to Hackney, 3 to Bermondsey, and 3 to Lambeth sanitary areas. The notifications of diphtheria also showed an increase, 207 new cases being reported, against 199 in the preceding week. The increase was principally in South London, notably in Newington, where 17 new cases were notified, against 11 in the preceding week; in Battersea, where the new cases rose from 14 to 21; and in Wandsworth, where 19 new cases were notified, against 9 in the preceding week. The number of diphtheria patients in the Metropolitan Asylums Hospitals, which had been 1,396 and 1,388 at the end of the two preceding weeks, had further declined to 1,371 on Saturday last, March 4th; 142 new cases were admitted during the week, against 179 and 149 in the two preceding weeks.

A NEW MEDICAL ORDINANCE FOR TRINIDAD.

WE have received from the Surgeon-General of Trinidad a copy of the new Medical Ordinance amending that passed in 1887, which has recently been brought into force in that island. It provides for the establishment of a Medical Board, which includes all the duly qualified medical practitioners in the island. From these are elected a President, Vice-President, Secretary, and Treasurer, and three others to constitute the Council of the Board. The Register of the Board contains separate lists of the members of the Board, licensed dentists, licensed druggists and assistant druggists, midwives, and rural shopkeepers. Any medical practitioner entitled to registration in Great Britain and Ireland, on furnishing proof of good character and payment of a fee of £5, is to be registered as a member of the Board. Anyone not registered who practises any department of medicine or surgery is liable to a fine of £20 or imprisonment for three months for a first offence, and a fine of £50 or imprisonment with hard labour for six months for a second offence. The Board have the power to remove the name of any practitioner from the Register for infamous conduct in a professional respect; and can, if it think fit, direct the restoration of any name so erased. The Ordinance also provides for the registration of midwives. A midwife is defined to mean a woman who undertakes for gain to attend cases of natural labour. No midwife is allowed to practise unless registered by the Board, the penalty for a breach of this regulation being a fine of £5. Any registered midwife is liable to have her licence cancelled if it is proved to the satisfaction of the Council that she is incompetent, or negligent, or addicted to habitual intemperance. Provision is also made for the registration of druggists, and there are appended, in the schedules, lists of the various poisons and drugs which can only be sold by licensed druggists, and under certain restrictions.

AN ANGLO-INDIAN CENTENARIAN.

SURGEON-MAJOR JOHN BOWRON, the patriarch of the Indian Medical Service, died at Hove on March 5th instant, at the age of 100 years. He first joined the East India Company's service as a medical pupil on July 1st, 1813, and was appointed an Assistant Surgeon on the Bengal Medical Establishment on December 20th, 1825. After holding medical charge of several regiments in succession, he became Civil Surgeon of the important station of Jessore in Bengal, subsequently returning to military duty until the date of his retirement from the service on December 31st, 1851, with the rank of Surgeon-Major, after thirty-eight years' service. This stalwart servant of old John Company was throughout his long service a zealous and conscientious officer, and in his own person proved that with care a European can undergo a prolonged period of continued service in the plains of India without damage to the constitution.

"OSTEOPATHY."

AMERICA, to which the world is indebted for "Christian Science" and several other varieties of quackery which the effete Old World had not imagination enough to invent for itself, has brought forth yet another new system of healing which appears to surpass all her previous efforts in the same direction. We learn that the founder of the new system was one Dr. A. T. Still, who, finding rational medicine unsatisfactory, set about to discover something better. After a long and laborious gestation his great mind, dreaming of things to come, was, in 1889, happily delivered of a new system, the name of which was called "osteopathy." This name might mislead an unwary person with a tincture of philology into the belief that the new system concerns itself especially with diseases of bone; but from the description given of its aims and methods, it appears that it takes the whole human economy for its province. The fundamental principle of the system is that "all bodily disorders are the result of mechanical obstruction to the free circulation of vital fluids and forces." The following extracts from official publications of the sect will sufficiently set forth its claims: "Osteopathy has nothing in common with the faith cure, Christian Science, spiritualism, hypnotism, magnetic healing, Swedish movement, mental science, or massage. There is nothing supernatural about it. Its apparently marvellous cures are accomplished through purely scientific methods, based upon a profound knowledge of the human mechanism." "In massage the operator rubs and pats the nude body at random, often without any knowledge whatever of anatomy, and expects results simply because such vigorous stirring up of the surface of the body has proven beneficial in some other case. The osteopath, however, treats the patient through loose clothing, his hand rarely coming in contact with the flesh, except about the head and neck. He does not rub or pat, but manipulates osteopathically." If we ventured to ask what manipulating "osteopathically" means, we should probably get an answer recalling the classical definition of an archdeacon as one who performs archidiaconal functions. The manner of diagnosis is ingenious in its simplicity—at least from the point of view of the "osteopathic" practitioner. "The diagnosis is largely through the sense of touch, which is developed to its highest perfection. As the fingers of the blind are trained to read the letters of the alphabet through several thicknesses of cloth, so the fingers of the osteopath passed over the surface of the body seldom fail to detect the slightest disarrangement of the human mechanism. He not only knows how the body looks when the anatomy is normal, but also how it feels." The "osteopath" is no mere specialist; he treats disease in all its forms. "Osteopaths contend that diphtheria is caused by contraction of the muscles of the neck and thorax, as well as by those of respiration. These interfere with the circulation and produce inflammation of the larynx, bronchial tubes, and throat. This disease, even in its most malignant forms, succumbs to osteopathy." The virtues of the Royal touch were nothing to those of the fingers of the new healer, who drives away diphtheria by "manipulating osteopathically." It is interesting to hear that a Bill is now before the State Legislature of Massachusetts asking for the recognition of "osteopathy." The adherents of the new system moreover are petitioning for representation on the State Board of Registration and graciously express their willingness to submit themselves to the State Board of Examination—with the trifling exception of medicine and surgery. We gather that it is by no means impossible that the Bill may pass.

MUD AS MEDICINE.

"EATING dirt" is an unpleasant method of refection which occasionally has to be adopted for prophylactic reasons by persons of too impulsive temper; but, so far as we are aware, mud has not hitherto been recommended as an article of diet with a therapeutic purpose. "Mud baths" we are more or less familiar with, but mud emulsions or electuaries strike us as a novelty. This latest addition to the *Pharmacopœia* is not a product of the inventive genius of German chemistry, but is prepared in the laboratory of Nature. Its virtues were proclaimed to the people of Denver not long ago by a "professor," who, after announcing his nostrum as "the greatest discovery ever made by mortal," proceeded as follows: "In my stupendous investigations of animal life I have discovered that dogs, horses, pigs, etc., were not troubled with dyspepsia, rheumatism, consumption, appendicitis, hysteria, and other ailments. I observed that all animals were very much given to eating dirt; this suggested the thought, Why not do likewise? And under the inspiration of the idea I commenced to eat dirt, and have been doing so ever since, with the result that my physical ailments have departed, and I stand before you to-night the most healthy man in America. I guarantee, if any individual will take three doses of dirt a day, it will cure every disease that is known to the medical profession. There is only one brand of dirt, however, that I can safely recommend, and it comes from the banks of the dear old Missouri river. Anticipating a large demand for it, I took the precaution of having a large consignment shipped to Denver. I have had this great Nature's remedy put up in neat boxes which will be sold at popular prices. Special rates will be made to large families and public institutions on keg and barrel lots. I will guarantee that it is the quintessence of the banks of the Missouri river." Need it be added that this appeal to the "eternal gullible" in man was successful? Truly does Autolycus say, "What a fool Honesty is! and Trust, his sworn brother, a very simple gentleman!" But why should such special virtues be claimed for Missouri mud?

If the active principle is dirt, we think it likely that a "brand" of incomparable efficacy could be extracted from the Thames.

THE TEETH OF THE RECRUIT.

MANY a man of good physique is rejected both by the army and navy Medical Examining Boards on account of defective teeth. It is, we believe, taken as a broad rule that when the teeth are lost or decayed there is no chance of the recruit being admitted to either service. Not only amongst the men, but also amongst those who wish to enter the service as officers, the question of good or bad teeth is an anxious one. For the recruit who wishes to join the ranks to be refused is not an actual monetary loss; but for a young man qualifying himself for a competitive examination, involving a considerable expenditure of time and money, to be rejected for having one more or less defective tooth is a serious matter. Mr. Wyndham, in his speech on the Army Estimates, stated that a good many would-be recruits were rejected on the ground of bad teeth, and these men are but examples of what is happening in all grades of society in this country. It is established as a fact, founded on widely-collected statistics, that 85 per cent. of British children under the age of 12 years require operative treatment. The question is, Can children with carious teeth grow into healthy adults? Can a race thrive whose children are so afflicted? When one has attained full growth it may not matter much whether the food is masticated by natural or artificial means, provided it is properly done; but with children it is a different matter, and the state of our children's teeth is a question of national importance. We understand that the question is to be brought up at the meeting of the British Medical Association at Portsmouth, where, in the Section of Public Health, direct attention will be drawn to the matter.

ITALIAN MEDICAL STUDENTS.

FOR the last ten years or so Italian medical students have been clamouring for examinations to be held in the middle of the term between Christmas and Easter. This desire has been the cause of various "eccentricities" on the part of the students of various universities. The authorities, on the other hand, seem to be of the opinion that this desire does not so much depend upon a genuine wish to be examined as upon a wish to procure that cessation of lectures which the holding of examinations would produce—in short, that they did not long to be examined, but to have a holiday. The authorities consider that the term is already sufficiently short for serious studies and refuse to shorten it. In the University of Turin there has been superadded a revolt against the Professor of Anatomy, Professor Fusari. A singular document has been going the round of the Italian daily press. It is a letter written to the students and signed by all the other professors of the Medical Faculty. It points out that Dr. Fusari obtained the appointment by competition, and that he had then and still enjoys the esteem and respect of all his colleagues as an anatomist and teacher. Many students absented themselves from his lectures, while those that did attend were entertained with hisses and noise. To these demonstrations were subsequently added turbulent meetings and violent speeches. The medical courses were suspended, a proceeding which naturally annoyed those students who were willing to work. The Minister of Education, Dr. Baccelli, Professor of Medicine, then intervened with a bitter-sweet letter of admonition. This had no more success than previous attempts at pacification. The lay press strongly condemns the conduct of the students, as do the general public. It is hoped that this attitude may have an effect, but this has not yet happened; and at the present time it is not at all unlikely that the whole Medical Faculty and not the Anatomy School alone may be closed for the rest of the year.

MEDICAL AID ASSOCIATIONS.

WE publish in another column a letter from a member of the Association suggesting that the Council should be asked to consider the subject of medical aid associations, and to inform its constituents that the practice of soliciting and canvassing for members does not meet with its approval. The Council of the Association has repeatedly said that canvassing for patients is a ground for regarding any particular medical aid association as objectionable, and members have been requested to have nothing to do with such associations. The objection to canvassing on the part of medical aid associations would apply as strongly to canvassing on the part of a private practitioner. What is wanted is not a vague denunciation of the prevalence of improper practices, but that any particular instance should be brought before the Ethical Committee or the Council of the Branch, by whom it would be brought before the Council of the Association. It will be remembered that the matter is also under the consideration of a Special Committee of the General Medical Council, which reported last December that they had been in communication with the representatives of the great friendly societies, with reference to the evils generally admitted or complained of by the medical profession in connection with medical aid associations, and that these representatives showed a desire to ascertain the views of the medical profession, and a strong disposition to entertain proposals with the view of mitigating the friction now existing.

"THE CURE OF PNEUMONIA."

DR. M. WASSERMANN has given an account of his researches upon immunity towards the pneumococcus in the *Deutsche Medicinische Wochenschrift* for March 2nd. The object of his investigation was to compare the protective powers of the blood serum and of extracts made from the various organs of immunised rabbits. He found that the bone marrow contained considerably more protective substance than an equal quantity of the blood serum, while the other organs contained none. From this and from other considerations he infers that the protective substances are formed in the bone marrow, whence they pass into the blood; the spleen and the lymphatic glands serving only as reservoirs. These researches are of interest in connection with the general question of immunity; but they hardly bear the interpretation put upon them by the lay papers. Indeed, Dr. Wassermann does not appear to claim that his researches can be utilised for the cure of pneumonia in the human subject. Although the bone marrow is more powerfully protective than the blood, nevertheless, on account of their relative bulk, more protective substance can be obtained from the latter than from the former.

MEDICAL SOCIETY OF LONDON.

THE annual dinner of this the oldest medical society of the metropolis on Wednesday last at the Hôtel Métropole was a record dinner in regard to numbers, 168 being present, and whilst the toasts were few, the speeches were short and pithy. Mr. Edmund Owen, the President, occupied the chair, and was supported by Sir S. Wilks, Sir William Mac Cormac, the Director-General of the Medical Department of the Navy, Sir H. F. Norbury; Professor Clifford Allbutt, and Mr. T. Bryant. The toasts of the "Queen" and the "Members of the Royal Family" were proposed by the President, as also was the toast of the evening, the "Medical Society of London." Mr. Owen stated that the Society, although this was its 126th anniversary, showed no signs of senile ailments. Its numbers kept up from year to year. A successful paper was one which invited discussion, and such a paper was often heard at its meetings. The first dinner of the Society was held in 1773, when ten members were present. Then came a crisis when the President and Secretaries resigned and the minute books vanished, after which Lettsom was elected President. He regaled the members with a turtle presented to him in 1775, and it was impossible to say how much of the subsequent success of the Society was "based on the carapace of that turtle." They would all drink "to a useful, happy, and honourable life to the Medical Society of London." Mr. Owen next called upon Dr. S. Monckton Copeman, and amid loud cheers presented him with the Fothergillian Gold Medal for his researches on glycerinated vaccine lymph and the excellent results accruing therefrom. The toast of "The Visitors" was proposed by Dr. S. West and responded to by Sir Samuel Wilks, Bart., and Sir W. Mac Cormac, Bart., K.C.V.O. Dr. W. M. Ord proposed "The President," on account of his office and for his own sake as a man, and said that Mr. Owen was eminently humorous and eminently receptive of humour, and that he would have equally graced his present position or the quarter-deck of one of Her Majesty's ships. The toast was received with musical honours, and the President replied. The musical arrangements, which were excellent throughout, were undertaken by Dr. Robert Maguire. Dr. Plummer gave a pianoforte solo which was enthusiastically encored, and Dr. Ronald Carter gave a violoncello solo. Mr. A. Foster Ferguson gave two songs which were much admired.

CHRISTIAN SCIENCE: SOME OF ITS RESULTS.

DR. JOHN B. HUBER, Assistant to the Chair of Principles and Practice of Medicine in the New York University and Bellevue Hospital Medical College, has devoted three months to a painstaking study of Christian Science, and reports the results in the *Medical News* of New York. He personally investigated 20 cases of patients of one kind or another who had been treated by Christian Science methods. Dr. Huber's adventures with the oracles of the cult are interesting and instructive. He visited the "First Church of Christ Scientist" in Forty-eighth Street, and was favoured with an interview with the "pastor," Mrs. Stetson. He found her in highly artistic surroundings, it being, as she explained, a principle in Christian Science to arrange a patient's environment so that the senses shall be pleased and gratified. Dr. Huber had prepared a list of questions relating to the methods of Christian Science, but was referred to the Reverend Mary Baker G. Eddy, "Mother" of the Christian Science sect. The high priestess was coy, however, and in turn referred the inquirer to her solicitor. That authority, after allowing himself some time for reflection, delivered himself of a vague reply, to the effect that it would be futile to attempt to answer the questions so as to make the answers intelligible to the medical profession. Dr. Huber was recommended to study the writings of Mrs. Eddy, which he appears to have done conscientiously without gaining any enlightenment. Mrs. Eddy's books, if not luminous, are voluminous, and they appear to sell even more than "problem" novels. Dr. Huber was told that she had to borrow money for the publication of her first book, and that she is now a millionaire. She is, in fact, one of the most successful authors of the day, and Miss Marie Corelli and Mr. Hall Caine must hide their diminished heads beside her. Dr. Huber was present at several "experience meetings" in Christian Science churches. There is an organ prelude, then a reading from the Bible, followed by a similar reading from *Science and Health*. Next comes a discourse, after which several hymns are sung, and finally a number of people rise and "testify," relating how they have been cured by Christian Science. Among the audience, as might be expected, the devout female sex was largely predominant. The sect is said to number about 3,000 adherents in New York alone; and that enlightened city rejoices in the possession of no fewer than seven Christian Science churches, all in well-to-do quarters. The "pastors" are mostly women. To the poor the gospel according to Eddy is not preached; indeed, it is part of her doctrine that no one has any business to be poor. Dr. Huber says that among the followers of Mrs. Eddy there are few very young men or women. The majority are middle-aged or elderly persons, who appeared to him to have found it difficult in their earlier years to conform their minds and bodies to the laws of this universal frame of things, and who in consequence have been unhappy and dissatisfied with life, following one false prophet after another, seeking comfort in theosophy, spiritualism, and kindred delusions, and turning at last to Christian Science only to find it flat and unprofitable like the rest. Dr. Huber's account of the treatment adopted by Mrs. Eddy and her healers agrees with that given in the BRITISH MEDICAL JOURNAL of November 12th, 1898 (p. 1515), but he adds that they include veterinary medicine and surgery within the scope of their art. "In these cases" (says Dr. Huber) "the cure is achieved by thinking or talking, and it is alleged that no material remedies are used." As the Christian Scientist holds that, in the words of Iago, "there is nothing good or bad but thinking makes it so," and as the method of cure is to impress on the patient that he is not sick and knows it, but is foolish enough to make believe he is ill or in pain, we should be glad to have an opportunity of seeing the "miracle of cure" wrought on an animal. Mrs. Eddy persuading a lion with a periosteal abscess that he did not feel pain, or one of her disciples applying mental treatment to a sick donkey, would form excellent subjects for pictures for the adornment of the walls of Christian Science churches. Of the latter procedure there must be many examples in their records.

THE DERIVATION OF SUGAR FROM ALBUMEN.

THE question of the exact origin of the sugar excreted in diabetes is one of great interest, both to the clinician and in the physiologist studying the metabolism of the body. Thus the derivation of sugar from albumen becomes to be of importance since it indicates a source of sugar, especially in cases where the glycosuria is not prevented by a diet from which carbohydrates are rigidly excluded. Mayer[1] has recently made a further contribution to the subject of the separation of sugar from yolk of egg. Dr. Pavy was among the first to occupy himself with the derivation of sugar from albumen, and subsequent observers have further added to our knowledge. The introduction of phenylhydrazin, by Emil Fischer, into the chemistry of the carbohydrates considerably facilitates such investigations, as it has thus been possible to compare the phenylhydrazin hydrochlorate combinations or osazones of the carbohydrates. F. Blumenthal, as Mayer points out, recently prepared from egg albumen an osazone with a melting point of 201° to 205°, and this was confirmed by Eichholz. The method followed by Mayer himself in the laboratory of v. Leyden's clinic is to extract the fat from fresh yolk of egg by ether, and to mix the remainder with 16 to 20 times its volume of water. The deposit of albumen is then collected, freed from water, and treated with 96 per cent. of alcohol and again with ether. A fine powder is thus obtained, showing no trace of sugar. Mayer then boils, after Krawkow's method, 25 grams of this albumen with 200 c.cm. of a 4 to 5 per cent. nitric acid solution for two hours and a half to three hours. After neutralisation and concentration the solution is found to give the reduction test. An osazone can be crystallised out from this solution with a melting point of 203°. A solution in acetic acid is lævo-rotatory. Neuberg found by analysis that this sugar is a hexose. Blumenthal also found that the sugar derived by him from white of egg was a hexose. The osazone obtained by Mayer accords exactly with the osazone to be obtained from glucose. It cannot, however be definitely said to be glucosazone, as both mannose and lævulose also yield the same osazone. Mayer looks upon it as proved that the albumen molecule contains a carbohydrate group which belongs to the hexaglucoses.

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[1] *Deut. med. Woch.*, February 9th, 1899.

THE HOSPITAL TREATMENT OF SYPHILIS.

Mr. F. W. Lowndes, who recently retired from the office of surgeon to the Lock Hospital, Liverpool, and who has been elected consulting surgeon, has published in the *Liverpool Medico-Chirurgical Journal* an article on The Study and Treatment of Venereal Diseases, especially Syphilis, a subject upon which his long experience entitles him to speak with authority. The treatment of venereal diseases among the civil population of this country has for years engaged the serious attention of the profession, and the question which Mr. Lowndes raises is, What can be done under existing conditions to resist the progress of this dire disease among the labouring classes? He states that at present the hospital accommodation for the treatment of syphilis throughout the whole of the United Kingdom is less than that provided in the city of Paris alone; our workhouses admit cases, but people can only enter these institutions as paupers, not as patients. So far as our general hospitals are concerned, this statement is true as regards the treatment of primary syphilis, and this is the more to be regretted because it is at this stage of the disease that under proper treatment it may be cured. But cases of syphilis in its secondary and tertiary forms are very frequently to be seen in the wards of general hospitals. Mr. Lowndes's remarks, therefore, apply largely to the want of hospital accommodation for the treatment of primary syphilis, and we concur in his opinion that it is very necessary that means should be taken to supply the existing deficiency. But then comes the question as to what that deficiency amounts to? We have at present no accurate information as to the extent to which syphilis prevails among the working classes. To enable an opinion to be formed as to the necessary accommodation in which to treat these cases trustworthy facts and figures are required. There should be no great difficulty in obtaining statistics on this subject, and we feel sure the physicians and surgeons in charge of out-patients would help in such an inquiry if organised by a central authority. It is true we should thus only obtain information regarding the number of people affected with syphilis who are ready to undergo treatment in hospitals, but it is to this class of patients that the observations of Mr. Lowndes apply, and he has done well to draw attention to the existing deficiency of our hospital accommodation for these cases.

THE CZAR'S PEACE PROPOSALS.

It is a remarkable fact in the history of the implements of warfare that as the weapons become more destructive the slaughter has grown less. In the old days of Fiji, for example, with clubs and spears, and hand-to-hand conflicts, the numbers of killed and wounded were always said to be large. But when firearms were introduced the whole tide of an action was turned in a very short time, when a few men on either side were shot down, but the results were quite as satisfactory. It happens also, that in more enlightened times, with the introduction of more destructive weapons, relatively more attention is paid to the wounded, and the aid is more scientific, merciful, and effective, quite discountenancing the children of Ishmael's idea of the total extinction of an enemy. There is an old adage that "the best peace society is a standing army," and the import of it is asserted when honest negotiation fails. As civilisation progresses arbitration will no doubt become easier, and in the lapse of time the Czar's dream may approach realisation, but so long as we can have no guarantee of the good faith of our neighbours, and the human heart is literally still uncivilised, force must and will intervene on certain occasions. In the case of Great Britain it must be admitted that necessity has been at the bottom of every improvement in the aids and munitions of war service, both naval and military. Her insular position demands a permanent naval force exceeding in effectiveness that of any two of her Continental neighbours; and if we take the words of the Russian General von Wendrich on the value of railroads to such a great continent as Russia, a large standing army is required for peace and security. Thus he remarks that "the military strength of Russia will grow to unheard-of limits the moment she begins to make use of the network of railroads, that most powerful military weapon of our age, being organised to a model plan. Who, then, on the face of the terrestrial globe will dare to brandish a weapon against the will of the Russian Czar peacemaker?" These words are slightly incompatible with the Czar's proposal "not to increase for a fixed period the present effective of the armed military and naval forces." However this may be, it seems possible that the fifth and sixth clauses of the Russian Circular might by discussion be got into a shape which would be effective in practice. The fifth clause proposes to apply to naval warfare "the stipulations of the Geneva Convention of 1864, on the basis of the articles added to the Convention of 1868;" and the sixth "to neutralise ships and boats employed in saving those overboard during or after an engagement." This would, of course, include the protection of hospital ships and depôts. As far back as Nelson's time boats employed in the rescue of men overboard or wounded were treated very kindly, and their neutrality was respected on both sides. In the Chinese expedition of 1860 we had a movable hospital ship attached to the Fleet (anchored well out of range of any fire). An old iron troopship called the *Simoom* was sent out for the purpose, and was utilised again during the first Ashanti expedition, when the *Victor Emanuel* was used for receiving soldiers, as was the *Coromandel* during the second Ashanti expedition. The most recent instance in which a hospital ship was fitted out by the Admiralty to accompany an expedition was during the disturbance at Benin. The vessel was especially devoted to the reception of sick and wounded, and had a nursing staff in addition to the usual medical staff of a ship of war.

STATE TREATMENT OF INEBRIETY.

At the present moment, when the establishment of inebriate reformatories under the Inebriates Act of 1898 is under consideration, we recommend a study of the Seventh Annual Report of the Massachusetts Hospital for Dipsomaniacs and Inebriates. The hospital is at Foxboro, and is held and managed by a Board of Trustees appointed by the Governor, with the advice and consent of the Council of the State. Many practical lessons can be learnt from this remarkable State experiment. Habitual drunkards may be committed by a judge of the Supreme Judicial Court, Probate Court, Police District, or Municipal Court, on production of two medical certificates and other evidence. The maximum term of each committal is two years. During the year ending September 30th, 1898, the daily average of patients was 164.58, and the weekly cost £1 2s. 4d. a head. This was an increase of 16 patients in the daily average, leading to a decrease in the average weekly cost of 2s. a head. Every year a careful inquiry is made throughout the State to ascertain the ultimate effect of the treatment. This investigation has shown that 36.73 per cent. of patients discharged from the hospital during the year ending May, 1897, were found to be abstinent; and 42.10 per cent. of those discharged in the succeeding year. Occupation and exercise medically employed—a broom shop the work of which is self-sustaining—have proved invaluable as remedial influences. An exact record is taken of the physical capacity at entrance and on discharge, of each patient. In 141 patients who had attended the regular classes for physical training, only 4 had lost weight very slightly; most of the remainder had gained considerably. In lung capacity not one had lost, but all had made a substantial gain. In weight the average increase had been 7.2 kilos., and in lung capacity 0.428 litres. Of cultivated land there are 96 acres. There is a farm on the estate, and the buildings consist of three cottages, besides dining-room block, boiler house, barns, administration office, etc. The State contribution during the year amounted to £5,400. Sale of brooms produced £1,500, with a stock in hand valued at over £900. There was received from sale of produce £33. The excellent work at this State-endowed hospital has been greatly aided by frequent musical evenings, entertainments, and lectures.

THE NASAL ORIGIN OF LEPROSY.

In the January number of the *Practitioner* there is a suggestive review by Dr. StClair Thomson of some investigations which have recently been carried out by Jeanselme, Laurens, and Sticker on the condition of the upper air passages in cases of leprosy. These observations are of special interest as drawing attention to methods by which this dire affection can be recognised in its early stages, and hence more properly isolated. Jeanselme and Laurens examined the air passages of 25 lepers, and in 15 they discovered affections of the nose and throat. These regions are therefore affected in 60 per cent. of the cases. These statistics referred only to the cutaneous or mixed form, and not to the nervous. From the examination of 153 lepers in India, Sticker found the leprosy bacilli present in the nasal secretion 128 times. He believes that the initial lesion of this disease is a specific ulceration of the cartilaginous septum, and that this is often present in the latent stage of leprosy for years before the appearance of the first tubercles in the skin or the development of the first nervous symptoms. This primary lesion in the nose remains an active centre of infection throughout the course of the disease, as the bacilli are constantly being thrown off in great numbers in the nasal secretion, which is consequently the chief source of danger. The bacteriological researches of Jeanselme and Laurens on this subject have demonstrated the bacillus of Hansen in the muco-pus of leprous rhinitis, and when there is epistaxis, it is found in the blood. According to these authors, occasional but persistently recurring epistaxis may be one of the first symptoms of leprosy, and they suggest that it may be as indicative a symptom in leprosy as hæmoptysis is apt to be in pulmonary tuberculosis. In this they confirm Sticker, who argues that as tuberculosis generally finds its first lodgment in the apices of the lungs, so leprosy most commonly originates in the nostrils. The first external manifestation of leprosy may, indeed, be a common chronic rhinitis—a persistent coryza, with formation of crusts in the nostrils and occasional epistaxis. With the progress of the disease the conformation of the nose becomes altered. When the cartilage of the septum gives way, the bridge of the nose collapses, and the nostrils may assume the form of the *nez en lorgnette*. A rhinoscopic examination shows the mucous membrane of the septum to be swollen and ulcerated, so that the slightest touch with a probe brings on hæmorrhage. As the ulceration deepens perforation of the septum takes place. This is circular or elliptic, and quite regular. When recent the margin is thick, callous, and bleeds readily; when old standing the circumference is sharply defined, and the mucous membrane thin, pale, and cicatricial, or it may even appear normal. Leprous tubercles are often found in the pituitary membrane. The sense of smell is not noticeably affected, but anæsthesia of the mucous membrane is observed, either in connection with the presence of tubercles or quite independent of any local manifestation. Often the entire mucous membrane of the septum is quite insensitive to touch. The thermic sensibility is always more affected. In connection with this subject we would refer those interested to the admirable macroscopic and microscopic observations by Dr. Paul Bergengrun, of Riga, on leprosy as it affects the upper air passages. They were shown by the late Professor Kanthack at meetings of the Pathological and Laryngological Societies last year.

The Croonian Lecture before the Royal Society will be given on Thursday, March 16th, by Dr. Burdon Sanderson. The subject of the lecture is the Electrical Concomitants of Motion in Plants and Animals.

Mr. Frederick Treves, who has been appointed Emeritus Professor of Surgery to the London Hospital, will give a course of four clinical lectures during the course of the next winter session.

We learn that the communication from the General Medical Council referring to the amendment of the Medical Acts, has come under the consideration of the Council of the Royal College of Surgeons of Edinburgh, but that the decision of the College will not be taken till the meeting in May.

We understand that, owing to the lamented death of Professor Kanthack, a session of the Summer School of Medicine at Cambridge cannot be held this year as was intended. It is hoped that arrangements may be made to hold another session in 1900.

It was announced in the British Medical Journal last week that Lord Lister had been elected a Foreign Associate of the Paris Académie de Médecine. The honour is the highest which it is in the power of the medical profession in France to bestow, and it must be all the more gratifying to the distinguished man on whom it has been conferred from the fact that the vote was unanimous. Professor Koch was elected at the same time. In his case several members abstained from recording their votes.

We are glad to find that a medical man—Dr. G. Vere Benson—is one of the two candidates selected for the office of Coroner for East Sussex from a considerable number by the Finance and General Purposes Committee of the East Sussex County Council for election by the whole council at their monthly meeting on March 14th. Dr. Benson is Deputy Coroner for Middlesex, and, as has been mentioned, is a barrister as well as a medical practitioner. The other selected candidate is a solicitor well known in the county, a fact which must give him no little advantage over Dr. Benson, who is better known in Middlesex than in Sussex.

The Laryngological Society of Berlin, on the occasion of its tenth anniversary, elected Professor B. Fraenkel, who has acted as its President since its foundation, Sir Felix Semon, of London, and Professor Stoerk, of Vienna, honorary members. The only other honorary members of the Society are Professors Gerhardt, Tobold, and Lewin, so that this is the first occasion on which the Society has gone outside the professoriate of the University of Berlin.

We are asked to state that an extra meeting of the British Balneological and Climatological Society will be held at 20, Hanover Square, on Wednesday, March 22nd, in order to give an opportunity for the further discussion of the papers read at the last meeting on March 2nd by Dr. Douglas Kerr, of Bath, on the Treatment of Disease by Heat, and Dr. Hedley, of London, on the Therapeutics of Heat.

MEDICAL NOTES IN PARLIAMENT.

[FROM OUR LOBBY CORRESPONDENTS.]

The Army Estimates occupied the last two days of last week in the House of Commons, and amid the general criticism the Army Medical Service received a good deal of attention. The Under-Secretary admitted that there was not an adequate army medical corps for the two army corps required to be ready for service, and said that sufficient money would be voted in the Estimates to make up the adequate strength by the addition of some fifty medical officers. The formation of convalescent stations for soldiers at certain barracks was recognised as a step in the right direction, but the very natural comment was made that the work might be done not only more effectively, but more economically, by taking advantage of existing civil institutions which were ready to receive military patients. As the first vote (Vote A) was only obtained, the discussion will be resumed on the remaining votes on Friday.

Sanitary Inspectors.—The President of the Local Government Board has at last been able to announce that the scheme originated by the last Government for forming a single portal examination for sanitary inspectors is complete. An association has been registered, with the sanction of the Local Government Board, to prescribe the course of study and hold the necessary qualifying examinations. All the chief public health societies will be represented in this association, and so it may be expected to place the education and qualification of sanitary inspectors on a thoroughly sound basis.

Vaccination still continues to be the subject of questions on the part of the faithful Commons. The last point settled was with reference to the visit of the public vaccinator to the private patients of another practitioner. Mr. Chaplin said that he had no information to the effect that medical practitioners objected to this visit, and he pointed out that it would not be made if the family practitioner himself performed the operation of vaccination before the date on which the public vaccinator was authorised to call.

The Notification of Infectious Diseases has been so great a success that Sir Francis Powell has drafted and introduced a Bill to extend the Act of 1889, and make it general throughout the country. The Bill has been generally approved by members, and as it is a small and unpretentious measure it may possibly pass into law this session.

Vivisection promises to give rise to a debate on the Estimates when the vote for the Home Office is reached. Pressure is being put on the Government—in the form of questions—to expedite the publication of the report of the Inspector on Experiments on Living Animals, so that there may be material ready for the discussion.

The Sale of Food and Drugs Bill occupied some hours of the time on Monday night, and gave rise to an interesting discussion. The Bill is not an ambitious measure, and deals mainly with milk, butter, margarine, and cheese. By inspection and sampling at the port of entry, the Customs officials will be able to enforce the proper marking of imported articles, and to prosecute offenders for adulteration. The margarine cheese trade and the importation of the impoverished and separated milk under the name of condensed milk will, it is hoped, be regulated, and fraud on the consumer prevented. The proposal of the Bill to place the Board of Agriculture in the position of supervising authority as regards agricultural food products was sharply criticised, and the qualification of the Board to issue regulations fixing standards of purity was also questioned. Sir Charles Cameron, who is more closely identified with legislation on adulteration than perhaps any other member of the House, supported the rejection of the Bill in a very stirrng speech. The debate was adjourned, but will probably be resumed this week

Volunteer Medical Staff Corps.—In reply to Dr. Farquharson, the Under-Secretary for War stated that in order to complete the *personnel* for transport sections an increased establishment had been given to all companies of Volunteer Medical Staff Corps. An allowance for practising transport duties would be made, but no alteration in the ranks of Volunteer medical officers was contemplated.

The Rivers Pollution Prevention Bill came on for discussion on Wednesday, and at one time looked as if it would pass the second reading. The Government agreed to allow its passage on condition that it was referred to a Select Committee, and when the announcement was made all looked well, but before the question was put there rose from almost behind the Speaker's chair the figure of Mr. W. L. Jackson, the member for Leeds, who in slow and deliberate tones went on till 5.30, and so talked the Bill out. Sir Francis Powell withdrew the Bill after this incident, and so it is dead for this year, the sixth in succession in which it has been unfortunate.

The Constructive Murder Bill was objected to a few minutes later, and the second reading postponed to Wednesday next.

The Prevention of Tuberculosis will form the subject of a debate on Tuesday next unless the exigencies of Supply compel the Government to take the day. Mr. Channing has first place for that day, and has put down a long resolution on the subject, dealing with the dissemination of tubercle through meat and milk, and calling on the Government to take early steps to protect the public against disease-producing food, and to test the herds by tuberculin so as to stamp out the disease throughout the country. If the motion comes on, it will receive considerable support from both sides of the House.

THE MEDICAL SICKNESS AND ACCIDENT SOCIETY.

THE monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Friendly Society was held at 429, Strand, London, W.C., on February 24th.

In the absence of Dr. de Havilland Hall, the chair was taken by Dr. MAJOR GREENWOOD, one of the vice-chairmen of the Society; and there were also present: Dr. J. B. Ball, Dr. Walter Smith, Dr. Alfred S. Gubb, Dr. J. W. Hunt, Dr. W. Knowsley Sibley, and Dr. F. J. Allan.

The accounts presented showed that the Society had received during the previous month an unusually large number of new proposals, and as the percentage of members who allow their benefits to lapse is very small, the Society is still rapidly growing in numbers. A certain number of members fall out of the Society every year through attaining the age limit of 65 years, but there are gratifying signs that the value of the benefits offered by this Society is becoming more widely known to the profession, and there seems no fear that the roll of membership will cease to grow for a long time to come.

The sickness claims, as is expected during the early months of the year, are numerous, and are rendered more than usually so by the recrudescence of influenza. So far the influenza claims experienced this year have been of short duration and of a mild nature, and compare very favourably with previous epidemics. In fact, there is already a sufficient slackening in this class of claims to warrant the hope that no serious epidemic need be feared.

The list of permanently incapacitated members still grows, and necessitates the payment of a considerable sum each week. This liability was, however, foreseen and provided for when the Society was founded, and at the valuation of the business in 1894 special reserves were made for it. The business is now being again valued, and the Committee hope to present the results to the general meeting to be held in May next.

Prospectuses and all particulars on application to Mr. F. Addiscott, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, London, W.C.

GENERAL MEDICAL COUNCIL.

MEETING OF THE EXECUTIVE COMMITTEE.

A MEETING of the Executive Committee of the General Medical Council was held on February 27th, those present being Sir WILLIAM TURNER, President, in the chair, Sir Dyce Duckworth, Mr. Carter, Mr. Bryant, Dr. Atthill, Dr. Heron Watson, Dr. Glover, Sir William Gairdner.

THE LATE SIR GEORGE BURROWS.

The PRESIDENT called attention to the gift of a bust of Sir George Burrows, a former President, by Sir Frederick Burrows and Mr. Alfred Willett, who received the thanks of the Committee.

REAPPOINTMENT OF MEMBERS.

Official notifications of the following appointments were received: Mr. Brudenell Carter, as representative of the Apothecaries' Society of London, for one year from February 6th, 1899; Sir Philip C. Smyly, as representative of the Royal College of Surgeons in Ireland, for one year from February 16th, 1899.

FINANCE.

The TREASURERS laid before the Committee statements duly audited of the receipts and expenditure of the General Medical Council and of the English Branch Council, and of the apportionment of the estimated expenditure for the year 1899. Resolutions were adopted accepting the statements, and requesting the respective Branch Councils to pay the amounts required from them by the estimates.

ILLEGAL CERTIFICATES.

A resolution of the General Medical Council at its meeting on December 1st, 1898, referring certain memorials on the subject of illegal certificates of proficiency in the departments of medicine, surgery, or midwifery to the Executive Committee, was considered.

The Committee resolved to recommend the Council to adopt the following resolution:

That as regards the issue of certificates in midwifery referred to in the memorials, the Council is of opinion that as the Midwives Bill is now before Parliament, it should at present refrain from taking any action. As regards the certificates granted to spectacle makers, the Council exercises no jurisdiction over such opticians, but will be prepared to consider any properly-substantiated charge of improper conduct made against a registered medical practitioner with reference to this subject.

UNQUALIFIED DISPENSERS.

Communications from the Privy Council with regard to the employment of unqualified persons as dispensers were received.

The first communication was from Arthur Oglesby, analytical chemist, Barnsley, who wrote under date January 23rd, 1899, as follows;

I beg to draw your attention to the recent fatality at Heaton Norris in which a doctor's dispenser—admittedly an incompetent man—was so thoroughly ignorant of doses as to cause the death of a person by giving such a quantity of morphine as no sane man—other than an ignorant—would have dispensed. And I would respectfully submit to your lordships' notice that the public run a serious risk by the careless dispensing that is done in thousands of doctors' surgeries throughout England............ The fact that even doctors themselves have a very vague knowledge of dispensing, and are not qualified dispensers, also that they are able so easily to cover up any mistakes their dispensers may make; that there are plenty of qualified dispensing chemists—taught the whole art of dispensing and examined by the Pharmaceutical Society—under your lordships' jurisdiction—to do this very work, and thus well qualified to do it certainly makes it a crying evil; that while, for the safety of the public, the chemist—who is a qualified dispenser—is hedged round with restrictions as to the dispensing of poisons, etc., the prescriptions of a medical man, possibly containing the most powerful toxic agents, are generally dispensed by the groom or some equally incompetent person. And I submit to your lordships that no medical man ought to be free to delegate the dispensing of his prescriptions to any other than qualified and therefore fit persons. Whether your lordships will think, after consideration, that the doctor himself should not be allowed to do his own dispensing—being so easily able to cover up any mistakes by a death certificate—I leave to your lordships judgment.

The second communication was from Mr. Albert Cooper, Fellow of the Chemical Society, and Member of the Pharmaceutical Society (80, Gloucester Road, South Kensington, S.W.), and was dated January 25th, 1899. The letter ran as follows;

The recent lamentable case of poisoning at Heaton Norris, near Stockport, brings vividly to mind the unsatisfactory manner in which dispensing is conducted in surgeries by unqualified assistants. Much has been done in recent years to protect the public by means of rigorously enforcing the provisions of the Pharmacy Act of 1868, on registered chemists, but it appears to me that the public require more protection—namely, that all dispensers of poisons should be qualified chemists or doctors. No Act has been passed with a view to protect the public from incapable dispensers in private surgeries, and the seriousness of the case is at once apparent when we learn that considerably more than half of the dispensing in this country is done by unqualified dispensers in surgeries. For the safety of the public I would respectfully suggest that the existing conditions under which poisons are dispensed in surgeries should receive immediate and serious attention.

The Executive Committee adopted the following resolution:

That the Committee recommend the subject to the consideration of the General Medical Council, but in the meantime express to the Privy Council that, whilst they fear that occasional accidents may arise from the employment by qualified medical practitioners of careless or incompetent dispensers, the cases, in their opinion, are very rare, and it appears to the Committee that probably the best protection is afforded to the public by the responsibility of the practitioner for the acts or defaults of the servants whom he employs.

BACTERIOLOGICAL LABORATORIES.

A letter was read from the Privy Council Office enclosing a despatch dated December 31st, 1898, from the British Ambassador in Paris, in which Sir Edmund Monson transmitted a copy of a Bill introduced in the Chamber of Deputies of France by a private member, M. Emile Dubois, for the establishment in every department of France of laboratories to conduct bacteriological researches with the view to the prevention of contagious diseases in general and of tuberculosis in particular. The Executive Committee adopted the following resolution:

That the proposed law is one which, in the opinion of the Executive Committee, is calculated to prove of great value and importance in the public interest. The Committee would further express the opinion that the foundation of similar laboratories in this country, to be supported by public funds, would meet with the approval of the medical profession.

MEDICAL PRACTICE IN ITALY.

A letter was read from the Privy Council Office referring to a letter received by the Privy Council from the Registrar of the General Medical Council (August 25th, 1897) on the subject of formalities necessary in this country for the recognition of degrees obtained at Italian Universities by Italian subjects. The Privy Council now transmitted a copy of a note from the Italian Ambassador asking whether Italian physicians can without a fresh diploma exercise their profession in this country, or at least on foreigners resident in Great Britain; and whether, if the answer to this question is in the negative, Her Majesty's Government would be willing to grant permission to Italian physicians to do so if the Italian Government were to engage to grant similar privileges to English physicians residing in Italy.

The Executive Committee adopted the following resolutions:

(1) That these communications be referred to the meeting of the Council in May next.

(2) That in the meantime the Registrar be directed to inform the Privy Council that the Committee would welcome such a recognition of a right by English practitioners to practise in Italy as would enable Her Majesty in Council, under the provisions of Section XVII of the Medical Act, 1886, to extend similar privileges to Italian practitioners in this country. And that with regard to the other questions raised in the correspondence, the Executive Committee would refer the Privy Council to a letter of date February 24th, 1898, addressed to Sir Charles Lennox Peel, containing a reply by that Committee to certain questions received through the Privy Council from the German Ambassador as regards practice by foreigners in this country.

PRACTICE BY MIDWIVES.

A letter was received from the Home Office, stating that the Italian Ambassador wished to be furnished with information respecting the regulations in England which govern obstetric aid by midwives. The Committee adopted the following resolution:

That the Secretary of State for Home Affairs be informed that up to the present time the practice of midwives in this country has not been subject to any legal regulation, but that a Midwives Bill is now under the consideration of Parliament.

VACCINATION STATIONS.

Communications were received from the Local Government Board in regard to instruction in vaccination, and were ordered to be received and entered on the minutes.

The first communication from the Assistant Secretary of the Local Government Board stated that the Board had arrived at the conclusion that it would not be in accordance with the intention of Section VII of the Vaccination Act, 1898, to require guardians to maintain stations in certain centres merely for the education of medical students, and the granting of certificates of proficiency in vaccination to them and to certain medical practitioners.

After communicating through their medical officer with the public vaccinators in England and Wales who are authorised to give certificates of proficiency in vaccination, the Board have arrived at the conclusion that the duty of providing vaccination stations for educational purposes, as regards both rent and maintenance, and the supply of a sufficient number of children to be vaccinated, must for the future devolve upon the authorised teachers themselves. This duty will carry with it certain expenses, and, having regard to this, the Board are of opinion that the several authorised teachers may properly charge a fee of one guinea and a half instead of one guinea as heretofore for each certificate, and the necessary tuition which they give. The Board will instruct their inspectors to report to them during the course of 1899 on the working of this new system, and especially as to how far each authorised teacher is able to carry on tuition in vaccination in such a manner as to fulfil the objects which have been held in view in his appointment to the post he holds.

The second communication was a copy of a circular letter sent to the deans of the London and provincial medical schools by Sir Richard Thorne, and conveys to the deans the information given in the Assistant Secretary's letter.

PENALTIES IN THE METROPOLIS.

A communication was received from the Home Office with regard to the allocation of penalties incurred in the metropolitan police district under the Medical Act, 1858, stating that the Home Secretary found that legislation would be necessary to effect the change desired, but that he did not see his way, for the present at least, to introduce a Bill for the purpose. The letter was referred by the Committee to Mr. Muir Mackenzie for his opinion on the legal question.

PROFESSIONAL SECRECY.

A letter was read from the Home Office stating that the Foreign Office had received a note from the Russian Ambassador asking to be furnished for the use of his Government with information as to the law of this country in regard to the professional secrecy of medical practitioners. By the President's direction, an opinion by Mr. Muir Mackenzie has been obtained, and the Committee resolved:

That Mr. Muir Mackenzie's opinion and memorandum in regard to this question be received and entered in the minutes, and that they be sent with a covering letter as the answer of the Committee to the letter from the Home Secretary.

Mr. MUIR MACKENZIE, in transmitting the following opinion, observed that he believed that he stated correctly the existing state of the law of the United Kingdom with respect to professional secrecy:

MEMORANDUM

ON THE LAW OF THE OBLIGATION OF MEDICAL PRACTITIONERS WITH REGARD TO PROFESSIONAL SECRECY.

There are two aspects of the question of the professional secrecy of medical practitioners—namely, first, whether a medical man can be made to divulge professional confidences in a court of law; and, secondly, whether he may under any circumstances be permitted to divulge professional confidences in the intercourse of daily life.

(1) As regards the first question, it is settled law that a medical man cannot claim the privilege, to which lawyers have been held to be entitled, of refusing to disclose matters communicated to them professionally. "A surgeon has no privilege, where it is a material question in a civil or criminal cause to know whether parties were married, or whether a child was born, to say that his introduction to the parties was in the course of his profession, and in that way he came to the knowledge of it. If a surgeon was voluntarily to reveal these secrets, to be sure he would be guilty of a breach of honour and of great indiscretion; but to give that information in a court of justice, which by the law of the land he is bound to do, will never be imputed to him as any indiscretion whatever" —per Lord Mansfield in the Duchess of Kingston's case, 20 *S. T.* p. 573. The same position is recognised by Buller, J., in Wilson *v.* Rastall, 4 *T. R.*, p. 760, where he says: "There are cases to which it is much to be lamented that the law of privilege is not extended; those in which medical persons are obliged to disclose the information which they acquire by attending in their professional characters;" and similarly in a later case Lord Chancellor Brougham, after referring to a lawyer's right of privilege, continues as follows: "The foundation of this rule is not difficult to discover; it is not (as has sometimes been said) on account of any particular importance which the law attributes to the business of legal professors, or of any particular disposition to afford them protection; though certainly it may not be very easy to discover why a like privilege has been refused to others, especially to medical advisers."—Greenough *v.* Gaskell, 1 *M. & K.*, p. 103.

In Rex *v.* Gibbons, 1 *C. P.*, 97, where the prisoner was indicted for the murder of her child, and a surgeon was called to prove confessions made to him, Park, J., overruled the objection that the witness was at the time attending the prisoner in his capacity of surgeon, adding "That is no sufficient reason to prevent a disclosure for the purpose of justice;" and the same rule, that "there is no privilege of this description in the case of a medical man," was repeated by Best, C.J., in Broad *v.* Pitt, 3 *C. P.*, 518.

From these cases it is clear that a medical man not only may, but must, if necessary, violate professional confidences when answering questions material to an issue in a court of law.

(2) Upon the second question there have been, not unnaturally, very few expressions of judicial opinion. It is admitted as a general principle that a medical man should not disclose communications made to him in his professional capacity, and in the Scotch Court of Session it has been judicially decided that "secrecy is an essential condition of the contract between a medical man and his employers, and breach of secrecy affords a relevant ground for an action of damages," A. B. *v.* C. D., 14 Dunlop, 2nd Series, 177. But upon this rule of the general inviolability of professional confidences (outside a court of law) the custom of the medical profession has engrafted two exceptions, (1) in cases of criminal communications, (2) where violation of secrecy is considered for the protection of wife or children (to which may be added a third exception, suggested by the Court in A. B. *v.* C. D., cited above, namely, instances conducive to the ends of science, though concealment of individuals should in such cases be secured). These two exceptions were the subject of testimony given by eminent medical witnesses, in the case of Kitson *v.* Playfair in 1896, as being generally recognised among medical men, but they are not judicially recognised as invariable exceptions, as is shown by the summing up of Sir H. Hawkins in that case. The defendant pleaded privilege on the ground of the second of the above exceptions, and though the point was not decided, owing to the jury finding that the defendant had been influenced by an indirect motive, the following passages are relevant to the matter of the obligation of secrecy among medical men. On medical evidence as to professional privilege being given, Sir H. Hawkins said: "The question of privilege is for me to decide, and, so far as it concerns that question, I shall not be influenced by this evidence."—*Times*, March 26th, 1896.

The following passage occurs in the report of the judge's summing up: "The medical profession might, no doubt, discuss among themselves rules for their own guidance; but they had not power to impose the rules they made upon the public. The medical men called said there were two exceptions to the rule imposing on them secrecy as to confidences gained during professional attendance. The first was to giving evidence in a court of law. His lordship did not altogether agree with what they said as to that. It all depended on the judge. The judge might in some cases refuse to commit a medical man for contempt in refusing to reveal confidences. Each case would be governed by particular circumstances, and the ruling of the judge would be the test. Secondly, that if there were circumstances from which they supposed a crime was intended to be committed they would have to inform the Public Prosecutor. If the doctor were called in merely to attend a woman needing physical aid, his lordship doubted very much whether he would be justified in going to the police and saying, 'I have been attending a woman who has been trying to procure an abortion.' That would be a monstrous cruelty. Therefore to say there was a general rule was going too far. There was a third exception, namely, a communication between the doctor and his wife or children. That required a great deal of limitation. For instance, there were cases in which the wife did not require protection, and where it would be a wanton act to communicate a secret to her. That was a delicate question, but did not arise in the present case. The law as to words spoken on a privileged occasion was pretty well known."—*Times*, March 28th, 1896.

From this it seems clear that on the question of violation of professional secrecy a medical man is in no more favoured position than anyone else, and further, that circumstances which, according to the custom of the medical profession, might be deemed to exonerate him from the imputation of improper violation of secrecy, might nevertheless in a court of law be deemed an insufficient justification.

IDENTIFICATION OF REGISTERED PRACTITIONERS.

The Committee considered the reference from the General Medical Council instructing it to report upon means to secure the identification of registered medical and dental practitioners, and to prevent fraudulent personation of such practitioners, and resolved:

That no application for the restoration to the *Medical* or *Dentists Register* of the names of persons who have been removed under Section XIV of the Medical Act (1858) or Section XII of the Dentists Act (1878) shall be entertained unless it be accompanied by a statutory declaration made by the applicant setting forth the facts of the case, and stating that he is the person originally registered, and by a certificate from a clergyman, a magistrate, or a registered practitioner as to his identity.

INSPECTION OF DOCUMENTS.

The Committee considered a resolution of the General Medical Council of December 1st, 1898,[1] directing them to report as to what arrangements can best be made to facilitate the examination by members of the Council of all documents which are the property of the Council, subject to leave being obtained for such examination and to the legal rights of the Council in regard to such documents, as also to their proper safeguard. The Committee resolved as follows:

That it be a recommendation to the Council in regard to the inspection of documents that the following be substituted for the present Standing Order XXIII:

That all documents of the Medical Council when not required for use by its legal advisers, be available for inspection by any member of the Council on the following conditions:

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[1] BRITISH MEDICAL JOURNAL, December 10th, 1898, p. 1759.

(1) That a notice in writing of three clear days be given to the Registrar.
(2) That the subject of the documents needed for inspection be stated.
(3) That the Registrar be held responsible for the safe custody of all documents.
(4) That it be an instruction to the Registrar to have the documents so arranged with respect to chronological order and otherwise as to facilitate their inspection.
(5) That no documents be removed from the premises of the Council.
(6) That all such documents and the information therefrom derived be regarded as strictly confidential.

APOTHECARIES' HALL, DUBLIN.

It was reported that Dr. G. A. Gibson, of Edinburgh, had accepted the appointment of Inspector of the Examinations of the Apothecaries' Hall, Dublin, and that Dr. Church had accepted that of Visitor for the same examination.

PROSECUTION BY THE SCOTTISH BRANCH COUNCIL.

The treasurer was authorised to remit to the Scottish Branch Council the amount of £142 17s. 3d., the legal expenses incurred by the Branch Council in the prosecution of Abraham S. Eastburn and his appeal to the High Court of Justiciary.

PROFESSIONAL EDUCATION.

A letter was read from Sir John Batty Tuke, the chairman of the Education Committee, calling attention to the fact that the leaflet purporting to be a copy of the requirements and recommendations of the Council in respect of professional education issued to students was not in accordance with the revised recommendations, and the Registrar was directed to reissue the paper with the addition of Recommendation 5 as to the number of months to be reckoned as constituting a five years' course, and the recommendation as to practical midwifery.

PENAL AND DISCIPLINARY POWERS.

The PRESIDENT made an interim report on answers received from the medical licensing authorities, relative to increased penal and disciplinary powers.

The report gave the text of the latter addressed last November to the various medical licensing authorities transmitting the clauses to amend the Medical Acts which have already been published in the Journal of February 4th, page 201. The President reported that the University Court of Glasgow, the Faculty of Physicians and Surgeons of Glasgow, the Royal College of Surgeons in Ireland, and the Apothecaries' Hall, Dublin, had expressed without comment approval of the two suggested clauses. Certain authorities, while expressing general approval considered that the clauses should be amended in certain directions. Thus the University of Edinburgh by its University Court and Senatus expressed the opinion that the second clause should be so altered as to make it clear that a practitioner whose name has been erased from the *Medical Register* shall be deemed to be deprived of his degree only in so far as it confers a qualification to practise.........The University of Aberdeen approved generally on the understanding that the question of purely academical privileges is not involved. The Society of Apothecaries of London, while in accord with the objects for which the clauses were prepared could not without further explanation admit that it could give its support to a Bill framed on these lines for the reasons stated in the BRITISH MEDICAL JOURNAL of February 25th, p. 489. The Society added that it was ready through its Clerk to confer with anyone authorised by the Council. The University of Oxford stated through the Hebdomadal Council that it cannot acknowledge the right of any other body than the University to take away or restore university degrees, but would be ready to consider any way in which, without deprivation of the degree, it might in certain cases be treated as penal to use the title of the degree for the purpose of practice.

The University of Cambridge, through the Council of Senate, would object to an enactment making it possible for a practitioner to be "deprived" of his degree independently of the action of the University itself, but that they would raise no objection to the addition of a clause to the Medical Act (1858) debarring a practitioner, so long as his name continues to be erased from the *Medical Register*, by the operation of Section XXIX of the Act, from using the title of his medical degree in such a manner as to imply that he is legally qualified to practise.

The Victoria University, by its Council, passed the following resolution: "That no graduate of the University should be deprived or deemed to be deprived of his degree or any right conferred thereby except by the act of the University."

The University of Dublin, through the Board of Trinity College, observed with regard to the first clause that it was not one with which the University was directly concerned. With regard to Clause 2 the Board stated that while they would have no objection that a man convicted of a criminal offence should be legally deprived of the right to use the title of a University degree which had been previously conferred on him, they cannot consent to the removal of this right on other grounds by any other authority than that by which the degree has been conferred, and that if the name of a practitioner were removed from the *Medical Register* for conduct which the General Medical Council might regard as infamous from a professional point of view, the University would need to be satisfied that it was infamous from their point of view before depriving him of the right to use the title of a degree formally given him.

The Royal College of Physicians of London stated that with regard to Clause 1, taken by itself, they saw no reason to oppose it. Clause 2, on the other hand, appeared to trench on the disciplinary powers and duties entrusted to the College by its charter and statutes, superseding them in particular cases. The College had taken the opinion of counsel on this point, and had been advised that the clause would be a serious infringement of the rights of the College, and not required in the public interest so far as the College is concerned, for it is not suggested that the authorities of the Royal College have in any way failed in the discharge of their duties under the By-law 188. In view of this opinion, the College was unable to express approval of the clause, and resolved that it would be its duty to oppose legislation in that sense, unless it were limited in its operation to degrees or diplomas conferred by bodies who do not possess the power of withdrawing or cancelling the qualifications they have granted.

The Royal College of Surgeons of England have expressed their regret that they cannot approve the clauses in their present form. They are advised by counsel that the first clause, in its present form, would enable the General Medical Council, at the end of the period of suspension from the *Register*, to restore a practitioner with the qualification M.R.C.S., even if the College had previously, or in the meantime, withdrawn his diploma. It appears, however, that without defeating the object of the clause, this objection might be met by the following amendment, namely:

"And at the expiration of the period specified in any such order or subsequent order, the Registrar shall, if the practitioner shall then possess a registrable qualification, and unless otherwise ordered by the General Medical Council, restore the name of the practitioner and his then existing qualification or qualifications to the *Medical Register*."

No replies had been received from the following bodies: University of London, University of Durham, Royal College of Physicians, Edinburgh; Royal College of Surgeons, Edinburgh; University of St. Andrews, Royal University of Ireland.

The Committee resolved to remit the report, together with any further answers from the licensing bodies, to Mr. Muir Mackenzie to consider the objections taken and the suggestions for amendment.

AN AMENDING MEDICAL BILL.

A Bill drafted by the Incorporated Medical Practitioners' Association to prevent persons who have been removed from the *Medical Register* under the provisions of Section XXIX of the Medical Act, 1858, from continuing to act as medical practitioners was received from the Privy Council Office, and the Committee resolved to inform the Privy Council that this communication had been referred to the legal advisers of the Council for consideration and report.

COLONIAL DEGREES.

An opinion was received from Mr. Muir Mackenzie to the effect that it would not be legal to add to the name of a practitioner registered in the list of colonial practitioners a British qualification which he had obtained. This opinion was received and entered on the minutes.

MIDWIVES AND COVERING.

A letter was read from Dr. J. C. Thresh with regard to the assistance rendered to midwives in abnormal cases. In the course of this letter he wrote:

> In certain districts our nurses, having obtained the certificate of the Obstetrical Society, attend the very poor women in their confinements, and have instructions to call in a medical man at once if the labour is not natural. We find that medical men refuse to attend, the excuse being that such an action would constitute covering, and be infamous conduct from a professional point of view. Is this the opinion of the General Medical Council?

The Committee resolved:

That the Council's memorandum in regard to covering be sent to Dr Thresh, and that he be informed that in the opinion of the Committee the case mentioned by him does not come within the terms of the notice.

DENTAL BUSINESS.

In addition to other business the Committee considered a supplementary notice to be issued to dental practitioners as to the administration of anæsthetics, as referred to in the resolution passed by the General Medical Council on December 1st, 1898; and the supplementary notice was approved as follows:

> Any registered medical practitioner who knowingly and wilfully assists a person who is not registered as a dentist in performing any operation in dental surgery, either by administering anæsthetics or otherwise, will be liable, on proof of the facts, to be dealt with by the General Medical Council as having been guilty of infamous conduct in a professional respect.

MIDDLESEX HOSPITAL MEDICAL COLLEGE.—In connection with the inauguration of the new building of the Middlesex Hospital Medical School next Wednesday, Dr. Frederick Hetley, a former student, has contributed the sum of £1,000 to perpetuate the Hetley Clinical Prize of £25 a year, founded in 1884.

THE TREATMENT OF INCIPIENT AND UNCONFIRMED INSANITY.

DEPUTATION TO THE LORD CHANCELLOR.

THE following is a report of the interview which a deputation of the British Medical and Medico-Psychological Associations had recently with the Lord Chancellor.

The deputation consisted of Dr. H. Rayner, Chairman; Dr. Fletcher Beach, Dr. G. F. Blandford, Dr. W. Douglas, Mr. George Eastes, M.B., Dr. W. J. Mickle, Dr. G. H. Savage, Dr. G. E. Shuttleworth, Dr. Ernest W. White, Dr. Dawson Williams, and Mr. Francis Fowke, General Secretary of the British Medical Association.

Dr. FARQUHARSON, M.P., having briefly introduced the deputation,

Dr. RAYNER said that the proposal which the deputation wished to make had been the subject of a resolution passed by the British Medical Association at its annual meeting held in Carlisle in 1896. He (Dr. Rayner) had been moved to read the paper which led to the resolution being adopted by the experience which he had had in the early treatment of insanity, especially at the out-patient department of St. Thomas's Hospital. He had been so impressed with the amount of recovery possible in the early stages that he thought that every improvement that could be made in the treatment of these stages ought to be made in the hope of checking that large increase of insanity in the country which all deplored. In every case of mental disease there was a stage between health and certifiable insanity. That was shown by many recoveries without certification, and by the statements as to the duration of the disorder prior to admission into asylums. The cases were always reported to have been mentally affected for three, six, or twelve months. In order that the existence of such a stage should be legally recognised, the deputation proposed that the Lunacy Acts should be amended by a Bill containing a clause similar to that which had been in force for thirty years or more.

The LORD CHANCELLOR asked to be referred to the provision in the Scotch Act.

Dr. RAYNER, having pointed out the section of the Scotch Act, emphasised the part he referred to in Clause 41: "Provided that this enactment shall not apply to any case where the party so received and kept has been sent to any such house for the purpose of temporary residence only, not exceeding six months, and under the certificate of a medical person, which certificate shall be in the form of Schedule (G) hereunto annexed." The advantages of the clause were that the Commissioners of Lunacy would be informed of the number of cases treated, of the duration of treatment, and the persons undertaking the treatment. This would give the Commissioners powers of supervision when necessary, and probably ultimately of regulating the treatment by such provisions as their experience would suggest. No pretext or excuse would be left to persons who now evaded the law. The deputation believed those improvements would lead to a large amount of recovery in the early stage, which did not now take place.

Dr. BLANDFORD said that the medical profession had been teaching for many years that insanity was a disorder to be treated by medical means, and that it was curable in the early stages. It was therefore of the greatest possible importance that it should be treated at a very early stage. The Lunacy Act of 1890 had put a different complexion altogether upon the matter. It enacted that every person who was of unsound mind should be incarcerated by the order of a magistrate.

The LORD CHANCELLOR pointed out that Dr. Blandford was somewhat misstating the effect of that Act, for which he was responsible. It was not that a person of unsound mind should be incarcerated by the order of the magistrate, but it was that the person should not be incarcerated unless a magistrate should so order.

Dr. BLANDFORD said that that was what the friends of patients so strongly objected to. Consequently the patients were not brought under treatment in an early stage. Friends in many cases sought to evade in every way the requirements of the Act, and they would either send them abroad or send them to Scotland, or put them at the top of a house and tie them down there; they would do anything rather than face the magistrate unless they were absolutely obliged to do so, and very often most valuable time was lost in that way. Then when the case became chronic, and they could not do without the magistrate any longer, they brought the patient to an asylum, when too often the chance of recovery was past. He thought that if the clause which the deputation suggested were to become law, it would render it possible to treat many cases without the interference of a magistrate, and without certification, and in that way a very great deal of good might be done and a great number of people might be saved from the stigma of certification by a magistrate's order.

Dr. SAVAGE concurred in everything that had been said, but felt that certain other practical points might be safely and fairly considered. There could be no possible doubt that there was a very strong feeling against certification among friends of patients. Certification in cases that were quite curable had a very serious effect and in different ways. Thus, if a person were certified as of unsound mind, that might put an end to a partnership in some important business, or it might lead to his discharge from an important position either in business or in civil or other life. This was not necessary, because insanity was so medically curable in many forms that to treat a person once insane as for ever incapable of transacting business was altogether wrong. The friends would accept anything rather than open certification, and the consequences, as they were seen by those engaged in this department of medical practice, were that patients were constantly sent away with male or female nurses. They were sent to farms, or small houses were taken for them in out-of-the-way parts of the country by the relations, and nurses or attendants were placed in those houses in charge of the patients, the letter of the law being fulfilled in some cases by a relation living near and coming and spending a certain number of hours in the house—perhaps not with the patient. Many patients were sent abroad, and their mental condition was not benefited thereby in any way. Cases of recurring attacks of insanity lasting only weeks or months occurred; the forms of insanity were so acute that no one would receive them in an asylum as voluntary boarders, yet those persons would certainly get well in a short time if properly treated. The deputation thought it would be a boon to these cases if they could be placed under temporary care without certification.

The LORD CHANCELLOR asked if the deputation suggested that the law should be altered in respect of patients who were properly certifiable at present.

Dr. SAVAGE said that the deputation did not desire that the law as such should be altered, except to the extent that persons who were certifiable, but who were suffering from quite temporary maladies, might by the permission of the law be allowed to be placed, as in Scotland, under private or single care and detained as patients under those conditions.

The LORD CHANCELLOR said he had great sympathy with the clause suggested by the deputation, and he thought it might be defended on the grounds that it had been defended, but he was not quite sure that he should like so long a period as six months.

Dr. SAVAGE pointed out that that was the period mentioned in the Scotch Act.

The LORD CHANCELLOR, continuing, said that he was not quite sure whether there ought not to be a shorter limit, subject to its being renewed, but that was a matter of detail. With the substance he very much sympathised, and felt that there was a very great deal in what the deputation had suggested. In fact their opinion must be of great weight with anyone who had to deal with the subject of the law of lunacy. What he deprecated was the view which had been expressed that the intervention of the magistrate was objectionable, and that it ought to be got rid of. He could not agree with anything that would tend to diminish the safeguards for the liberty of the subject. Whether rightly or wrongly, a great many people in this country conceived that many persons had been detained in asylums who ought not to have been detained at all. It was right to have some sort of judicial determination as to the state of mind of the patients which would justify the restraint of the liberty of the subject. He was very strongly in favour of that proposition, and he should do nothing to diminish or qualify that. If people disobeyed the law, that seemed to him to be a reason for making the law more stringent. The law of larceny would not be abolished because, notwithstanding all laws against larceny, people still stole. Such a line of legislation could not be followed. As to what had been justly described as non-confirmed insanity, or incipient insanity, cases which were capable of being cured, he might say that he entirely sympathised with their object, and certainly, as far as he was concerned, he would try to give effect to their suggestions.

The deputation then withdrew.

THE GRIEVANCES OF IRISH DISPENSARY DOCTORS.

ON Thursday, March 2nd, a very large meeting of members of the profession was held in the Royal College of Surgeons, Ireland, for the purpose of considering the grievances under which the Irish dispensary doctors labour. The meeting was convened by the Irish Medical Association, and Sir THORNLEY STOKER, President of that body, occupied the chair.

There were about 200 members present, amongst whom were Dr. J. W. Moore, President of the College of Physicians; Mr. R. L. Swan, President of the College of Surgeons; Dr. Little, Physician to the Queen; Dr. T. Myles, Vice-President Royal College of Surgeons; Dr. E. H. Bennett, President Royal Academy of Medicine; Dr. F. T. Heuston, President Dublin Branch British Medical Association; Sir Charles Cameron, C.B., Sir William Thomson, Sir Philip Smyly, Dr. Dillon Kelly, Mullingar; Dr. Moorhead, Cootehill; Dr. A. H. Jacob; Dr. William Jacob, Maryborough; Dr. R. J. Kinkead, Galway; Dr. Chapman; Dr. Cotter, Cork; Dr. Gorham, Clifden; Dr. L. H. Ormsby; Dr. Olpherts, Downpatrick; Dr. Keating, Cork; Dr. Bennett, Clonakilty; Dr. Gray, Armagh; Dr. Dillon, Roscommon; Mr. H. G. Croly; Dr. Henry, Clones; Dr. W. McD. Wright, Dalkey; Dr. Agnew, Lurgan.

The CHAIRMAN said he had had a good deal of consultation with the Local Government Board, and he was prepared to assure them that no more sympathetic body could exist than that body as at present constituted. He had pleasure in telling them that as a result of the work of the Association the *Gazette* of the next day would contain new rules of interest to the medical officers of Ireland. He ventured to say that these rules would meet with their approval. He concluded by moving:

> That the Local Government Board be requested to recommend to Boards of Guardians, in cases where dispensary medical officers have been deprived of one or more electoral divisions of their districts, and where the compensating pension allowed does not preserve their salaries at the full original amount, the Boards should supplement these salaries, so that the whole amounts, including pensions, shall remain undiminished.

Dr. TRUELL, D.L., of Wicklow, seconded the motion, which was carried.

Dr. J. W. MOORE, President of the Royal College of Physicians, moved:

> That the power conferred on individuals of issuing tickets for medical relief "at their discretion," and practically without responsibility, has in many instances led to injustice, and that the exercise of this power should in future be safeguarded against gross negligence or other misuse, and that when thus abused the power should be withdrawn.

He mentioned a case in which, out of 1,434 tickets, only 58 were issued by members of the Dispensary Committee. The story of the guinea fee he regarded as a myth. Doctors often did work for nothing, and sometimes a guinea fee covered a month's attendance.

Mr. R. L. SWAN (President, Royal College of Surgeons) seconded the motion.

Dr. WELBY (Bandon) produced a ticket ordering attendance on the signatory's mother, and another for attendance on the signatory himself. He urged that tickets should be presented before a fixed hour, as in England, unless in cases of emergency.

Dr. WRIGHT mentioned that that rule had existed, but was withdrawn.

Dr. MOOREHEAD (Cootehill) moved:

> That a circular be addressed to the new Boards of Guardians throughout Ireland respectfully requesting that they will, after consulting with the medical officers of each dispensary district in their respective unions make such arrangements as may tend to reduce the hardship and injustice so frequently caused by the abuse of the present ticket system, and thus promote the efficiency of the dispensary medical service, to the advantage of the sick poor and the ratepayer, as well as that of the medical officer.

He pointed out that funds were needed to carry the agitation to a successful issue. The medical officers in this Union had agreed to and subscribed £1 each.

Dr. DONOVAN (Castlerea) seconded the motion, which was carried.

Sir WILLIAM THOMSON proposed:

> That as in most of the dispensary districts in Ireland the largest part of the salary paid to the medical officer for the treatment of the sick poor, instead of going into the doctor's pocket as remuneration dearly earned, is actually required to pay (for the public benefit) the travelling expenses necessary to discharge the dispensary duty, the present salaries should be regulated so as to remedy this grievous injustice.

He said it was an unheard-of arrangement that a public officer should be required to provide conveyance out of a salary of £120, in order that he might discharge a public duty. A horse and car should be supplied to him.

Mr. J. MCARDLE seconded the motion.

Dr. KEATING (co. Cork), Dr. WRIGHT (Dalkey), Dr. MCCARTHY (Kenmure), Dr. MINCHIN CLARK and Dr. DONOVAN (Castlerea), supported the motion, which was carried.

Mr. T. MYLES, Vice-President of the Royal College of Surgeons, moved:

> That inasmuch as the responsibility of the medical officer is so continuous night and day throughout the whole year, and his work is at times so laborious, his duty cannot be efficiently performed without sufficient rest and change. It is, therefore, necessary that a vacation should be allowed to every medical officer for a period of four weeks in the year, and his substitute remunerated by the Boards of Guardians.

Dr. COTTER (Cork) seconded the motion, which was carried.

Dr. JAMES LITTLE, Regius Professor, Trinity College, proposed:

> That Poor-law medical officers, whose duties were so much more responsible and laborious than those of the ordinary civil servant, requiring more physical vigour for their performance and for resisting the risks incurred by exposure to weather and contagious disease, should be enabled to retire from active duty when overtaken by age or infirmity on the terms and subject to the requirements of Her Majesty's civil servants, the medical officers thus receiving a necessary release, and the sick poor a protection from the injustice of being dependent for medical relief on the service of men no longer physically able to discharge exacting and exhausting duties.

Dr. HEUSTON seconded the motion, which was adopted.

A deputation was then appointed to wait on the Local Government Board to submit the views of the medical profession of Ireland on the grievances of the Irish Poor-law Medical Service.

THE PLAGUE.

LABORATORY PLAGUE IN COCHIN CHINA.

ACCORDING to the *Archives Orientales de Médecine et de Chirurgie*, an outbreak of plague has occurred among the indigenous population of Nha-Trang, Cochin China, where M. Yersin is pursuing his researches on the microbe of that disease. The distinguished investigator has, it is said, a number of mice which had been inoculated with plague in cages. Every possible precaution appears to have been taken, but nevertheless the infection found its way to the outer world. It is supposed to have been conveyed from the cages in grains of rice supplied to the mice for food, the carriers being ants, which picked up the fragments that remained. No details are given as to the extent of the outbreak.

JEDDAH.

The most important recent news is contained in the telegrams announcing that plague is officially declared to have broken out at Jeddah, the seaport for Mecca. Fortunately the annual pilgrimage has not yet commenced, but owing to the impossibility of restraining Mohammedan religious enthusiasts, the occurrence of plague at this port in the Red Sea is fraught with great danger to neighbouring countries. Egypt is immediately threatened, and already the harbour authorities at Alexandria have declared arrivals from Jeddah subject to quarantine.

PRETORIA, TRANSVAAL.

The bacteriological investigation of the blood and fluids of the Indian who died of alleged plague at Middelburg in the Transvaal does not support the belief that he died of plague, and all the other suspects are doing well. Although plague is now stated to be in neither the Transvaal nor Delagoa Bay, we would warn the authorities in these districts that in many places where plague is now epidemic similar experiences to theirs have been met with.

BOMBAY.

In the city of Bombay plague is again for the fourth time epidemic, the mortality from this disease alone amounting to about 150 deaths daily.

MYSORE.

The coolies at the Mysore gold mines were in a state of panic owing to an outbreak of plague. One mine had to close part of its surface works owing to the scare, but within the last few days the coolies have returned, and operations are again resumed.

THE SPECIAL COMMISSION.

Colonel Street, Sanitary Commissioner of Bombay: Major Dimmock, a former member of the Plague Committee; Mr. Monteith, Lieutenant Keelan, Dr. Venis, Major Dyson, Major Collie, Captain Meyer, Mr. Morrison, and Mr. Toms, Director of the Government Observatory, gave evidence before the Plague Commission. During the course of the evidence it was elicited that one patient had recovered from a second, and another from a third, attack of plague.

The number of plague deaths at Poona since the commencement of the outbreak was stated by Lieutenant-Colonel Fawcett to be as follows: In the first outbreak in Poona between January and May, 1897, 2,025 persons were attacked by plague, and of these 1,500 died; during the second outbreak—August, 1897, to April, 1898—there were 4,960 attacks and 3,633 deaths, the population of Poona being at the time 90,000. Although persons engaged in plague work were wonderfully immune, they were subject to neuralgic pains in neck, arms, and groins.

In the town of Satara the evidence went to show that chemical disinfectants had not proved successful. The unroofing of infected houses was found to be the best measure. Kiln burning was neither theoretically nor practically sound. After evacuation no houses were allowed to be reoccupied within four months. The population of the city of Belgaum was by plague reduced from 30,000 to 18,000. In the village of Neginhal, with a population of 2,949 persons, the disease abated spontaneously, although neither disinfection nor evacuation were practised.

Miss Cawthorn, M.D., stated that at Gadag 38,000 inoculations were performed, 18,000 of them double. Miss Cawthorn used a dose one-fifth stronger than the prescribed dose in three-fourths of the cases when 86 persons contracted plague; of the remaining one fifth on whom the ordinary dose was used, 66 developed plague, showing that an increased quantity gave greater protection. Double inoculations appeared advantageous. In the town of Sholapur the presence of plague reduced the population from 60,000 to 30,000. The plague disappeared after the city was disinfected.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday the 12th day of April next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

429, Strand, March 9th, 1899.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1899.

MEETINGS of the Council will be held on April 12th, July 12th, and October 11th, 1899. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 23rd, June 22nd, and September 21st, 1899.

ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting of this District will be held at the Eastern Hospital, Homerton, on Thursday, March 16th, at 4 P.M., Dr. Shadwell in the chair. Dr. Goodall will read a paper on Some of the Difficulties of Diagnosis of Infectious Diseases, and cases of interest will be shown. Visitors are invited.—C. J. MORTON, 56, Orford Road, Walthamstow, Honorary Secretary.

OXFORD AND DISTRICT BRANCH.—The next meeting of this Branch will be held at the Radcliffe Infirmary on Friday, March 24th, at 3 P.M. Members wishing to read papers, etc., are requested to communicate with the Honorary Secretary as early as possible.—WM. COLLIER, St. Mary's Entry, Oxford.

SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT.—The next meeting will be held at the Infirmary, Worthing, on March 23rd, at 4 o'clock. Dr. Leeds Harrison will preside. Mr. Anthony Bowlby will read a paper on Cases of Abdominal Surgery, illustrating (*a*) Actinomycosis of the Intestine, (*b*) Acute Pancreatitis, (*c*) Unusual forms of Suppuration about the Cæcum and Appendix. Dr. Harrison and Dr. Morris will show cases of Transposition of Viscera. Members desirous of making communications, or of showing cases of interest, are requested to communicate with the Honorary Secretary, FRANK HINDS, 14, The Steyne, Worthing.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of this District will be held at Brighton on March 23rd.—J. W. BATTERHAM, Bank House, Grand Parade, St. Leonards, Honorary Secretary.

SOUTH-EASTERN BRANCH: EAST KENT, WEST KENT, AND NORTH KENT DISTRICTS.—A conjoint meeting of the above Districts will be held at St. Bartholomew's Hospital, Rochester, on Tuesday, March 21st, at 3 P.M., Dr. T. T. Brunyate in the chair, when Mr. Victor Horsley, F.R.S., will deliver an address on the Present Condition of the Medical Practitioner and his Relation to the General Medical Council. Dinner at the Bull Hotel at 6 P.M.; charge 6s. exclusive of wines. All members of the South-Eastern Branch are entitled to attend and to introduce professional friends. The Honorary Secretary of the West Kent District would be much obliged if members would kindly inform him by post-card whether they intend, if possible, to be present at the dinner. By so doing they will very materially facilitate arrangements and promote the success of the meeting.—LUDFORD COOPER, St. Bartholomew's Hospital, Rochester, Hon. Sec. West Kent District; T. F. RAVEN, Broadstairs, Hon. Sec. East Kent District; A. TENNYSON SMITH, Orpington, Hon. Sec. North Kent District.

EDINBURGH BRANCH.—The annual winter meeting of the Edinburgh (Fife and Lothians) Branch, in conjunction with other Branches, will be held in the Royal Infirmary, Edinburgh, on Friday, March 17th. A Medical Congress for Clinical Demonstrations will be held at 4 P.M. The museum (pathological and apparatus) will be open from 3.30 P.M. onwards. Dinner in the Royal Hotel, Princes Street, at 6.30 P.M.; dinner ticket, 5s. Intimation of exhibits (clinical or other) should be made to JAS. HODSDON, M.D., 6, Chester Street, Edinburgh, or R. W. PHILIP, M.D., 45, Charlotte Square, Edinburgh, Honorary Secretaries.

LANCASHIRE AND CHESHIRE BRANCH.

A MEETING of this Branch was held in the Medical Institution, Mount Pleasant, Liverpool, on Tuesday, February 28th, 1899. There were about 100 members present, and the chair was occupied by Mr. W. BERRY, F.R.C.S.I., President.

Payment of Branch Representatives.—On the motion of Dr. BARR, seconded by Dr. GODSON, it was resolved:

> That every accredited representative of this Branch, when attending a committee or subcommittee meeting in London on the business of the British Medical Association, and every member of a deputation to London appointed by this Branch or by the Council of this Branch, on Association or Branch business shall be paid out of the funds of this Branch his first-class return railway fare. However, this regulation shall not apply to representatives of this Branch on the Council of the Association when in attendance at meetings or on deputations at or about the times of the Council meetings in London, or to the attendance of anyone during a meeting of the Association, or to anyone when his fare or expenses are paid out of the funds of the Association.

The Vaccination Act.—There was a discussion on the Vaccination Bill, in which Dr. CARTER, Dr. BRIERLEY, Dr. C. J. RENSHAW, and others took part. On the motion of Dr. CARTER, seconded by Dr. BRIERLEY, it was resolved:

> That the Lancashire and Cheshire Branch of the British Medical Association desires to express its opinion that the efficient primary vaccination of every child is necessary in order to afford protection against outbreaks of small-pox; that stringent measures should be adopted to enforce such efficient primary vaccination; and that no certificate should be accepted by the vaccination officer as a certificate of successful vaccination, unless it shows that the requirements of the Local Government Board, as set forth in their instructions to public vaccinators, have been fully complied with.

Midwives Bill.—On the initiation of Dr. J. **BRASSEY BRIERLEY**, there was a protracted discussion on the Midwives Bill. Among those who took part in the debate were Dr. **BRIERLEY**, Dr. **MACFIE**, Dr. **RITCHIE**, Dr. **MACVIE**, Dr. **GLEDHILL**, Dr. **THORNLEY**, Mr. W. **MITCHELL BANKS**, Dr. G. H. **BROADBENT**, and Dr. **HELME**.—Dr. **BRIERLEY** moved the following motion, of which he had given notice, and this was seconded by Dr. **MACFIE**:

> That, seeing the persistent refusal of the promoters of the Midwives' Registration Bill to secure efficient medical and lay control over their proposed practitioners, the Lancashire and Cheshire Branch of the British Medical Association will use all its powers to defeat this Bill or any modification of it unless and until they have definite assurance that complete and definite medical control will be enforced.

Dr. **RITCHIE** moved and Dr. **MACVIE** seconded the following amendment:

> That the Lancashire and Cheshire Branch considers that the Midwives' Registration Bill at present before Parliament is defective in matters of control and limitation of practice, and in other respects; that these defects are met by the amendments adopted by the Parliamentary Bills Committee of the British Medical Association, and urges on the Council of the Association the advisability of submitting these amendments to the Privy Council and to the General Medical Council should there be indications of legislation on this question going forward.

On the amendment being put to the meeting, 25 voted for it and 11 against, and, on being put as a substantive motion, there were 28 for and 2 against. A large number abstained from voting.

Medical and Surgical Communications.—Mr. W. **MITCHELL BANKS**: Some Surgical Cases, with patients.—Dr. C. **THURSTAN HOLLAND**: Case of Lupus treated by *x* rays (patient).—Dr. G. G. **STOPFORD TAYLOR**: Cases of Lupus and Favus (patients).—Mr. **RUSHTON PARKER**: Case of Plexiform Neuroma of Eyelids, excision; ptosis completely corrected by plastic operation.—Mr. W. **THELWALL THOMAS**: Four cases of Tumour of the Urinary Bladder, diagnosed by cystoscopic examination, and operated upon.—Mr. **ROBERT JONES**: Cases of Foreign Bodies in the Œsophagus.—There was an exhibition of patients in the Library, from 2.30 to 3 P.M., by Drs. and Messrs. **MITCHELL BANKS**, **BARENDT**, **BARR**, **DAMER HARRISSON**, **ROBERT JONES**, R. W. **MURRAY**, **RUSHTON PARKER**, **PAUL**, **STOPFORD TAYLOR**, **THELWALL THOMAS**, etc.

Medical Appliances.—There was an exhibition of Medical and Surgical Instruments.

Dinner.—The members dined together at the Adelphi Hotel at 6 P.M., under the presidency of Dr. **BERRY**.

METROPOLITAN COUNTIES BRANCH: SOUTH-EASTERN DISTRICT.

A **MEETING** of this District was held at Guy's Hospital on February 24th, Dr. R. **PERCY SMITH**, Vice-President, in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and confirmed.

Demonstrations.—Mr. **FAGGE** demonstrated the following cases: Syphilitic Periostitis of Skull, Sarcoma of Clavicle, Bronchocele, Spinal Caries with Paraplegia.—Mr. **TARGETT** showed a case of Syphilitic Stricture of Pharynx and Larynx.—Mr. F. E. **FREEMANTLE** showed A. B., aged 14, formerly a healthy Devonshire boy, who was seized with swelling of the legs and abdomen about Easter, 1898. On admission in October there was marked œdema universally below the level of the diaphragm; no œdema of face. Urine healthy; heart healthy; slight bronchitis, which cleared up; soft and large liver down to umbilicus; some anæmia. Condition unchanged since then, but only healthy urine daily. Diagnoses: (1) Chronic mediastinitis; (2) adherent pericardium; (3) tuberculous peritonitis with fatty or lardaceous liver.—Dr. **BRYANT** showed a case of Ulcer of the Cardiac End of the Stomach in a man aged 51. The chief symptoms were severe stabbing pain in the lower part of the chest and back, great pain behind the ensiform cartilage at the end of the act of deglutition, and extreme hyperæsthesia of the skin over the lower third of the sternum and sixth to ninth dorsal spines. Also a case of Ascites due to chronic peritonitis and chronic interstitial nephritis. Paracentesis had been performed eight times. At first the diagnosis had been cirrhosis of the liver.

Carcinoma of Stomach.—Dr. **BRYANT** read a paper on Car- ma of the Stomach. Four varieties were considered, according to the distribution of the growth—namely: (1) carcinoma of the pylorus; (2) carcinoma of the cardiac end; (3) local carcinoma of other parts; (4) diffuse carcinoma. He pointed out the differences in the condition of the stomach, the physical signs and symptoms, and the bearing these variations had on the surgical treatment of the disease. Mr. **DUNN**, Dr. **HYSLOP**, and Dr. **TARGETT** discussed the paper; and Dr. **BRYANT** replied.

Votes of Thanks.—A vote of thanks was given to the governors of the hospital for the use of the rooms, and to the gentlemen who had provided such an interesting demonstration. The meeting then adjourned.

PERTHSHIRE BRANCH.

A **SPECIAL** meeting of this Branch was held in Perth on March 3rd, Dr. W. **ROBERTSON** (Perth), Vice-President, in the chair. The other members present were: Drs. Paton, Robertson, Taylor, Trotter, Simpson, Reid, Stirling, and Urquhart.

Confirmation of Minutes.—The minutes of last meeting were read, confirmed, and signed.

New Member.—Dr. Storrar, Pitlochry, was elected a member of the Association and of the Branch.

Conjoint Meeting with Edinburgh Branch.—The invitation of the Edinburgh Branch to join in a meeting on March 17th was cordially accepted.

The Prevention of Tuberculosis.—The **SECRETARY** read the report of the Committee on Tuberculosis and letters from the President and Dr. Muir. The report was adjusted and approved, and the Secretary was instructed to send a copy of it to the Lord Provost, respectfully requesting him to convene a public meeting for the purpose of considering the question of aiding the national movement for the prevention of pulmonary consumption and other forms of tuberculosis.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

A **CLINICAL** meeting of this Branch was held on February 28th, at the Hospital, Swansea, Dr. T. **WALLACE** (President), in the chair. A good number of members attended.

Multiple Uterine Fibroid.—Dr. **ELSWORTH** showed a specimen of multiple uterine fibroids. The tumours were situated all over the body of the uterus; one of the largest, growing from the lower part of the posterior surface, was firmly wedged in the pelvis. The broad ligaments were ligatured so as to include the uterine arteries low down at the level of the cervix, and the structures above the ligatures removed, namely, the uterus, with its tumours, tubes, ovaries, and broad ligaments. The raw surface left, including the cervical canal, was then closed with a continuous catgut suture, the edges of the peritoneum being brought together over it, the stump dropped into the abdomen, and the wound closed. The patient made an uninterrupted recovery.

Extrauterine Gestation.—Dr. **ELSWORTH** read notes on five cases of extrauterine gestation treated by laparotomy. Three of these were examples of tubal abortion, characterised by amenorrhœa at first, later by irregular uterine hæmorrhage, softening of cervix, enlargement of uterus, and the occurrence of a parauterine tumour. In all the hæmorrhage was free at the time of operation; the peritoneum was washed out in each case and drained. Two patients made excellent recovery, but one died from shrinking of a fleshy pedicle and subsequent hæmorrhage. Two cases were examples of ruptured tube, with severe internal hæmorrhage In each there had been a period of amenorrhœa, when the patient was seized with sudden and severe pain in the abdomen, fainting and collapse, with some distension of the abdomen. There was softening of the cervix and enlargement of the uterus. In both cases the condition of the patient was critical; in both the abdomen was found full of blood. One case, which did not come under observation till the third day, died 24 hours after the operation; the other made a good recovery.

Neurectomy for Neuralgia.—Dr. **ELSWORTH** also showed three cases of neurectomy of the superior maxillary nerve for intractable neuralgia. In all three the nerve was exposed by Carnochan's method, and divided as it issued from the foramen rotundum. The relief from pain in all was immediate and complete.

Cholecystotomy—Dr. A. **WILLIAM SHEEN** read notes of two cases. The first was one of ordinary recurrent biliary colic in a woman aged 25. In three years she had had about thirty attacks of colic, each followed by jaundice. The gall bladder was exposed, opened, and about a dozen stones removed. The gall bladder wound was sutured to peritoneum and aponeurosis of the abdominal wall, and the fistula soon healed. Since operation the patient had had only one attack of pain, and had never had jaundice. In the second case the gall bladder was distended so as to form an abdominal tumour. Recurrent attacks of pain had occurred for a year previous to operation, and the swelling had been noticed for three months. There had been no jaundice. The gall bladder was exposed, opened, found to have its walls thickened and its cavity filled with colourless mucoid fluid; a stone blocked the cystic duct, which all efforts failed to remove. The gall bladder was sutured into the abdominal wound as in the previous case. Since the operation the patient had been comfortable, but a fistula remained which discharged about an ounce of clear fluid daily. Both patients had been under observation for thirteen months since operation. With regard to the second case, the question of further operative procedure was discussed, especially in reference to attempting to crush the stone from outside after reopening the abdomen, or removing it through an incision in the wall of the duct.

Cases and Specimens.—Mr. BROOK showed: (1) A specimen of Fibroma springing from the base of the skull, and the patient from whom it had been removed; a report of the case will be published; (2) a specimen of a Fibrous Odontome removed from the antrum of a child through the mouth; the Clinical Research Society reported the tumour to be "a fibroma with areas of hyaline change, as though it were becoming converted into cartilage; there were also some small deposits of calcareous material"; (3) a case of Recurrent Papillary Fibroadenoma of the Uterus, in which vaginal hysterectomy was performed. When first seen the growth completely filled the vagina. Arrangements were made for operation at an early date, but in the meantime an attempt was made by an unqualified person to remove it by traction, with the result that at the operation the uterus was found to be completely inverted. This allowed of very thorough removal, and application of pure carbolic acid to the site of origin of the growth—namely, three parts of the interior of the body of the uterus. It recurred, however, and hysterectomy was successfully performed eight months later; (4) a peculiar case of Skull Deformity. The patient had been in a London Hospital four years ago, and the case was reported in the BRITISH MEDICAL JOURNAL, June 6th, 1896, as one of leontiasis ossea, megalocephaly, or hyperostosis cranii. In addition to stiffness and loss of power in the right shoulder-joint, with wasting of the muscles of the arm, which was looked upon as coincidental osteo-arthritis, there was stiffness of the elbow-joint and contraction of the flexor muscles of the forearm, leading to permanent flexion of the fingers into the palm, also loss of sense of heat and cold in the same hand, and progressive weakness of both legs; in the discussion that followed Dr. JABEZ THOMAS stated that he had attended the patient at the age of 3 years for a fractured skull; he had fallen from a window on to his head, and the bones of the cranial vault had been crushed down upon those of the base of the skull; (5) Stump after Pirogoff Amputation for crushed foot at the age of 17 years and 9 months; (6) Foot after Chopart's Amputation for Disease, in which the tendo Achillis had been divided, the head of the astragalus drilled, and the tendon of the tibialis anticus sutured to it, with the result that the movements at the ankle-joint were as perfect as in the other foot.—Dr. CAMERON showed a case of Lichen Ruber Planus in a girl, aged 13. It had commenced nearly a year ago. The papules were most numerous on the back of the neck and shoulders, where they were grouped in crescentic form, in one patch almost simulating ringworm. Scattered papules were also seen on the arms. The eruption showed the usual characteristics—small, flat, and umbilicated. There was no special cause that could be assigned for the onset of the eruption. Local application had little or no effect, but a fortnight's treatment with doses of arsenic had caused a noticeable fading and improvement of the eruption.

THE Council of the University of Lille has decided to establish a lectureship in laryngology in the Medical Faculty. The salary is to be £80.

SPECIAL CORRESPONDENCE.

ROME.

The Illness of the Pope.—The University Disorders in Italy.

ON February 27th the Pope was taken ill with general *malaise*, rise of temperature, and severe pain in a cyst which had existed in the left flank, immediately above the crest of the ilium, for upwards of twenty-five years without causing any annoyance. Dr. Lapponi, at his visit on the following morning, found that His Holiness was suffering from inflammation of the cyst, and he requested a consultation with Professor Mazzoni, *Libero Docente* of Special Pathology in the University of Rome. The result of the consultation was that Professor Mazzoni enucleated the cyst on the morning of March 1st, having previously anæsthetised the part with the ether spray and injection of cocaine, because it was not thought advisable to administer chloroform to the Pope, owing to his great age (he completed his 89th year on March 2nd). Leo XIII bore the operation admirably, and in the evening the temperature had fallen to 99.5° F. from 102° F. in the morning; the pulse was good, and the general condition satisfactory. Professor Mazzoni tells me that the cyst was hæmatic, the size of a large citron or of a fœtal head at term; it was not suppurating. After the extirpation the Professor plugged the cavity and brought the edges of the skin wound together with strips of plaster, as it was thought that the introduction of stitches would be too painful. The following day the tampon was removed, and the edges brought together with plaster. Since then the Holy Father has made an uninterrupted recovery, the temperature has become normal, and the wound is healing very satisfactorily. In fact, Professor Mazzoni has told me this afternoon (Saturday, March 4th) that he considers the august patient almost cured.

Since Christmas the annual university disorders have recurred in Italy. This year they began in the University of Palermo, where the students were desirous of obtaining an additional session of examinations. Professor Baccelli, the Minister of Public Instruction, refused to grant the request, and threatened to close the University for the academic year if they did not cease the disorders, which had also extended to the University of Naples. This firm action soon put a stop to the disturbances in both Universities. Later the students attending the anatomical school of the University of Turin, by way of protest against the appointment of Dr. Fusari to the Chair of Human Anatomy, made such disturbances that it was impossible for him to continue his lectures. The Rector of the University published a manifesto, with the sanction of Professor Baccelli, in which he stated that the school of anatomy would not be reopened until the students pledged themselves in writing that order would be kept at Professor Fusari's lectures. If the students did not agree to this, the school would be closed for the whole year, and the summer and autumn examinations would not be held. On February 24th the course was reopened for those students who had complied with the Rector's demand. While these students were entering the school the anti-Fusarians tried to prevent them, crying out "*Tutti o nessuno!*" The latter were dispersed by the police, and they went to the University, where they tried in vain to get the support of the students of the other faculties. On February 26th they endeavoured forcibly to enter the school of anatomy, and came into collision with the public authorities. Many of them were arrested, and they are now being tried in Turin. The Academic Council then decreed the closure of the course of anatomy for the current year. Why the students object to Professor Fusari is not very clear, as he is a very able man, has had a distinguished university career, and has the warm support of all his colleagues. The firm action of Professor Baccelli in reference to these disorders has been warmly praised in the Chamber of Deputies and by the press.

PARIS.

Help for the Blind.—"Masks" for Operators.—General.

THE Valentin Haüy Association held its general meeting a few days ago at the Continental Hotel. M. Gustave Jourdan, the Treasurer, stated that £1,680 had been spent during the year 1898 by the Association: 1,526 blind persons have been befriended; a certain number of them are entirely supported and cared for by the Association. Its funds are insufficient to meet the demands made on the society. This association has organised a *vestiaire* where clothes are given, a library, and a rent fund. Work is also given out at the workroom or to be done at home. It consists of making paper bags: 100,000 kilos of paper have been given during the past year to the Association for this purpose. M. François Coppée, poet and Academician, presided, and, in a feeling and eloquent address, appealed to human sympathy for help for the Valentin Haüy Association.

M. Berger recommends surgeons whilst operating to wear a gauze mask. M. Berger has obtained in operations for hernia 68 complete cures and union by first intention; both he and his assistants wore masks, so that neither saliva nor their breath could come in contact with tissues operated on.

At the general meeting of the Œuvre des Enfants Tuberculeux d'Ormesson, Dr. Léon Petit stated that during the past ten years 9,514 tuberculous children have been treated at the Villiers and Ormesson hospitals, and in the Noisy and Trémilly colonies 19,000 out-patients were also treated.

Mme. Louise Hanicot, *sage femme en chef* at the Paris Clinique d'Accouchements, has been accorded the *palme académique*, and is enrolled as *officier d'Académie*. Mme. Louise Hanicot was highly esteemed by the late Professor Tarnier.

The Sultan has conferred on Professor Duclaux, Director of the Pasteur Institute, the second class of the Osman Order.

BERLIN.

The German Laryngological Society.—The forthcoming Tuberculosis Congress.—A Municipal Sanatorium for Berlin.—Sickness Assurance and Phthisis.—New Home for Inebriates.

On February 22nd ten years had elapsed since the foundation of the German Laryngological Society, and, according to German custom, the "jubilee" day was celebrated by a banquet and appropriate theatrical performance, in both of which the wives, "sisters, cousins, and aunts" of the members took part. Among the after-dinner speakers was a Japanese, Professor Okada, who delivered a message of greeting and congratulation from the Tokio Laryngological Society, and expressed the warmest appreciation of German scientific methods—all in faultless German. The German Laryngological Society numbers at present 140 members, amongst whom are many of the most eminent names in this branch of medicine. In the list of honorary members appears the name of Manuel Garcia, the celebrated teacher of singing, who owes this distinction to his invention of the laryngoscope. On this "jubilee" occasion, three new honorary members were elected: Professor K. Stoerk, of Vienna; Sir Felix Semon, of London, and Professor B. Fraenkel, of Berlin.

The list of papers which are to be read at the forthcoming International Tuberculosis Congress has been made out, and is as follows:

I. *Dissemination of Tuberculosis.*—(1) General Remarks on the Dissemination of Tuberculosis and its Import as a National Disease (Koehler, Berlin); (2) Relations between the Outer Conditions of Life and the Diffusion of Tuberculosis (Krieger, Strassburg); (3) The Diffusion of Tuberculosis amongst the Part of the Population subject to Compulsory Insurance (Gebhard, Luebeck); (4) Tuberculosis in the Army (Schjerning, Berlin); (5) Tuberculosis amongst Domestic Animals and its Relation to the Dissemination of Disease among Human Beings (Bollinger, Munich).

II. *Etiology.*—(1) The Tubercle Bacillus in its Relation to Tuberculosis (Flügge, Breslau); (2) Ways and Means of Infection (C. Fraenkel, Halle); (3) Mixed Infection (Pfeiffer, Berlin); (4) Heredity, Immunity, and Disposition (Loeffler, Greifswald).

III. *Prophylaxis.*—(1) General Measures for the Prevention of Tuberculosis (Roth, Potsdam); (2) Prevention of Tuberculosis in Infancy (Heubner, Berlin); (3) Marriage (Kirchner, Berlin); (4) Living Rooms, Work Rooms, and General Intercourse (Rubner, Berlin); (5) Hospitals (von Leube, Würzburg); (6) Food (Virchow, Berlin).

IV. *Therapeutics.*—(1) Curability of Lung Tuberculosis (Curschmann, Leipzig); (2) Medicinal Therapeutics of Lung Tuberculosis, inclusive of Inhalation (Kobert, Rostock); (3) Treatment of Lung Tuberculosis with Tuberculin and Similar Remedies (Brieger, Berlin); (4) Climatic Therapeutics, including Sea Voyages, Forest Air, etc. (Sir Hermann Weber, London); (5) Hygienic and Dietetic Treatment of Lung Tuberculosis and Sanatorium Treatment (Dettweiler, Falkenstein).

V. *Sanatoria.*—(1) Development of the Sanatoria Movement (von Leyden, Berlin); (2) Financial and Legal Supporters of the Sanatoria Undertakings; (3) Co-operation of Sick Clubs and their Doctors with the Sanatoria Treatment; (4) Sanatoria Buildings (Schmieden, Berlin); (5) Inner Arrangements of Sanatoria and Curative Results (Werner, Berlin); (6) Care of the Families of Sanatoria Patients and for Discharged Convalescents (Panwitz, Berlin).

More than 600 applications for tickets of admission to the Congress have been received by the Committee, and it is gratifying to learn that a considerable portion come from other countries than Germany.

The Berlin magistrates have agreed on a project for building a sanatorium for tuberculous men, and will submit the plans to the City Council very shortly.

There seems to be a certain connection between the approaching Tuberculosis Congress and a statistical article published in the February number of the *Official Journal of the Imperial Board of Insurance*, which gives in rows rows of figures the costs and results of medical treatment directed and paid by insurance establishments and sick clubs under the German law for the insurance of the aged and disabled. This is the first time that such figures have been collectively published, and they show that the therapeutic results obtained in phthisis cases have been on the whole favourable. They show too that on the average the expenses of phthisis treatment are far higher than in the case of other diseases. No doubt this is due to the special feeding, the greater air space, etc., required for phthisical patients. Of the 10,483 cases considered in the statistical tables (all belonging to the year 1897), 3,568—or more than a third—were phthisis cases.

A home for dipsomaniacs is to be erected near Berlin by the Berlin Branch of the Society to Prevent the Abuse of Alcoholic Drinks. The municipal authorities are much interested in the scheme, and have promised pecuniary assistance, and one of the members of the society has offered an eligible plot of land, 120 acres in extent, at a very low price, and under the most favourable conditions of payment. The sanatorium is to be large enough for 50 inmates, and the building and furnishing costs are estimated at 110,000 marks (£5,500).

LIVERPOOL.

The School of Tropical Medicine: Communication from Professor Koch: the Consuls and the School: Proposed International Recognition.—Death from Blackwater Fever.—Banquet to Professor Oliver Lodge: The Proposed New Physics Laboratory.

The new School of Tropical Medicine is steadily gaining ground, and is receiving encouragement from all the leading firms which have commercial interests in tropical countries. The promoters have been much gratified by two letters which they have received from Professor Koch of Berlin, in which he expresses regret that he is unable to accept the invitation he has received from the Committee to be present at the formal inauguration of the school, assures them of his sympathy with the new institution, and offers his best wishes for the success of the "grand and useful undertaking." He expresses the hope that he will be able to visit it later, and states that it is in contemplation to form a similar institution in Germany. A meeting of the Committee of the Liverpool Association of Foreign Consuls has lately been held with a view to promoting the recognition of the school by foreign governments. Mr. A. L. Jones, the representative of the Congo Free State, who was the first to come forward and place the scheme on a permanent basis, said that in the cause of humanity the consuls should stir up their respective governments to lend it their aid. Investigations were especially needed as to the causes of malaria, and whatever discoveries were made would be for the good of mankind at large, and all countries would benefit thereby. It would therefore be desirable to obtain recognition of the school in foreign countries, a recognition which might receive practical demonstration in the form of pecuniary aid. Other consuls who were present supported the suggestion of international recognition, and it was agreed to call a meeting of all the consuls at an early date to receive information concerning the school, which could be communicated to their respective governments. Professor Boyce stated that it was proposed to have special courses for the instruction of missionaries and for the training of nurses for the tropics.

The death of Captain the Hon. Richard Somerset in the Royal Southern Hospital has brought home to the community with painful acuteness the necessity for making special provision for the treatment of tropical disorders. The deceased officer died of blackwater fever, which he contracted in West Africa.

Professor Oliver Lodge was entertained on March 4th by the Lord Mayor at the Town Hall in connection with his receiving the Rumford medal of the Royal Society. Amongst those present were Sir W. Crookes, Professor Rucker, Professor Myers, Professor Fitzgerald, Principal Glazebrook, and Dr. Caton. In the course of the evening it was announced that £10,000 had been promised towards the construction of a new physics laboratory by an anonymous donor, and £5,000 by Sir John Brunner. Mr. Alfred Booth has promised £2,500 if three other gentlemen will contribute equal amounts. The probable cost of a suitable laboratory is estimated at £30,000 or £40,000.

LEEDS.

Experimental Medicine at the Yorkshire College: Objections by Antivivisectors.—The Press and the Agitators.

DURING the past two or three weeks there has been a little mild excitement in Leeds upon the vivisection question. Strange as it may appear, the medical school here is not a licensed place for experiments on animals, although the need of such a licence has long been felt, yet a formal representation for permission to apply to the Home Office for it has not been made to the Council of the Yorkshire College until quite recently. The representation of the medical school authorities was considered in a full meeting of the Council, and the desired permission to apply for a licence was granted. The passing of this resolution involved the resignation of the Chairman of the Council, Mr. Rawlinson Ford, a gentleman who has rendered many services to the College. However much his resignation is to be regretted, yet the question of the licence is of such vital importance to the physiological and pathological departments, that the decision of the College must be approved of by all who really trouble themselves to understand the exact position of the question. The application for the licence would undoubtedly have been made long ago if it had not been for the well-known and at the same time respected objections of Mr. Ford.

As might have been expected of such papers as the *Yorkshire Post* and the *Leeds Mercury*, the press here has taken the most enlightened view possible upon the subject, but the correspondence necessarily admitted to its columns has been mostly characterised by the singular want of information upon actual facts which is always displayed in this vivisection controversy. It is a matter of congratulation that a great disability under which the Leeds School of Medicine has long suffered appears at length in a fair way of being removed.

ABERDEEN.

The Lectureship in Tropical Medicine.—Severe Epidemic of Measles.—Hospital Abuse.—Honorary Degrees.—The Gifford Lectureship.

AT a meeting of the Aberdeen University Court, in accordance with the resolution of the last meeting to establish a Lectureship in Tropical Medicine, it was resolved to offer the appointment to George Archibald Maconachie, M.D., M.R.C.P., late Principal of Grant Medical College, Bombay.

An epidemic of measles, the most severe which has been experienced in Aberdeen for many years, has been causing considerable anxiety to the sanitary department. The week before last 700 cases and last week over 600 cases were reported. Fortunately the epidemic on the whole does not show a high mortality.

In view of the difficulty experienced at the Royal Infirmary of sufficiently accommodating applicants for admission there has been of late some correspondence in the Aberdeen papers. There seems no reasonable doubt that country districts should contribute more liberally than they do at present to the funds of the institution, though there are generous exceptions. Again, subscriptions from individual patients, so far as their means allow, in recognition of treatment received, are certainly very much less than they should be. It seems doubtful whether hospital treatment is made use of by those able to pay for private attendance to a greater extent than in other large centres. That such abuse is found to occur to a greater or less extent wherever public hospitals exist is unfortunately true, and it is useful that the public should be awakened to the sense of the wrongfulness of such abuse, but any means of gauging the pecuniary position of applicants for treatment before admission is notoriously difficult, and the abolition of the hospital-letter system has, it is believed, been of undoubted benefit to the community. There appears to be little, if any, truth in the assumption that cases of a lighter character are admitted now than formerly.

The Senatus have agreed to confer the degree of LL.D. on James Frederick Goodhart, M.D., F.R.C.P.; on Charles Stewart, M.R.C.S., F.R.S., Conservator of the Museum of the Royal College of Surgeons, and on George Frederick Stout, M.A., Lecturer in Comparative Psychology, Aberdeen University (appointed to the Wilde Readership in Psychology at Oxford), among others, at the forthcoming graduation ceremony.

The appointment of Professor Sayce, the distinguished Assyriologist and Egyptologist, to the Gifford Lectureship for the two terms, 1900-1901 and 1901-1902, is a matter of considerable interest to the University.

CORRESPONDENCE.

DIPLOMAS AND DEGREES FOR OPTICIANS.

SIR,—In your leader of February 18th, headed "Diplomas and Degrees for Opticians," there are several points to which I should have immediately drawn your attention but for pressure of work in connection with our examinations of last week. I venture to think that your leader partly misrepresents, and partly fails to do justice to, the work that our Company of Spectacle Makers is engaged in.

In the first place your article, while giving a detailed account of the syllabus, omits all reference to the practical part of the examination, which includes a knowledge of the microscope, telescope, photographic camera, projection and nautical instruments, thereby giving rise to the idea that the examination is confined to sight-testing and the theory of optics. But of this I do not complain, were it not that you suggest in the next paragraph that "it may be contended that the acquirement of a diploma after passing such an examination may be deemed sufficient to empower and authorise its possessor to prescribe for and treat cases of defective vision and other diseases of the eye." Now, the general anatomy of the eye and the principle of the ophthalmoscope are the only two subjects mentioned in the syllabus which trench in the remotest degree upon the treatment of disease or the province of the medical man. I wish to point out that the anatomy of the eye as taught in our classes and treated in our examination is entirely confined to the optics of the eye treated from a purely physical point of view; while as regards the ophthalmoscope, our teachers are instructed merely to explain the principles involved, so that opticians may learn to manufacture it with intelligence—an amount of knowledge which I can hardly imagine any one can find fault with. As for treating diseases of the eye, nothing can be further from the fundamental principles of the Company. Indeed diseases are never discussed, and as for treating them, our teachers are instructed to caution all their pupils that as soon as they find that they cannot at once bring the sight to normal, or nearly normal, vision, or the case presents any complications whatever, they are to recommend their customer to seek medical advice. In order to still further protect the public and the medical profession, those students who are entitled by examination to receive a certificate must sign a legal agreement in which they bind themselves "not to use any drug for the purpose of paralysing the accommodation of the eye," and "not to advertise the diploma in any way which would lead the public to infer that it conveys medical qualifications." These restrictive covenants have not been "revised," as your article suggests, but were a vital element of our scheme prior to our initial examination. These regulations will be enforced on all our members unless in the case of a medical man who might honour the Company by obtaining its diploma.

Again, you say "that if the Company is allowed to continue to hold the examinations referred to and to grant its diplomas, serious questions may arise as to whether or not there is an infringement of the provisions of the Medical Acts." Surely, Sir, the Medical Acts cannot prohibit the Spectacle Makers' Company from examining opticians in matters connected with their own business, nor opticians from learning it. If you reply that sight-testing pure and simple, coupled with a knowledge of the optical qualities of the human eye, should be confined to the medical faculty, I can only add that, although the treatment of diseases of the eye has been confined to the medical profession, as it rightly should be, from time immemorial, it is little more than thirty years ago that the surgeon first commenced to scientifically test for errors of refraction, and to prescribe the requisite glasses. Prior to this time the fitting of spectacles to defective vision was entirely the province of the optician.

It is far from the intention of the Spectacle Makers' Company to deprive the oculist of a single patient. The oculist, by his highly scientific training, is by far the most competent person to take charge of so delicate and important an organ as the eye; but we should remember that of the 45 millions of people in the British Isles at least one half will require the aid of glasses during some part of their lives, and of this number it must be admitted, only a very minute percentage ever find their way to properly qualified oculists.

The advertisement you refer to was issued by an optician immediately after passing the examination, and before he had signed the agreement referred to above; but it was stopped the moment it was brought to our notice, on it being represented to him that it was contrary to our rules. We consider that advertisements should especially be controlled by the Company, and for this purpose we have appointed a special committee, of which a medical man is a prominent member, and which we would gladly strengthen by the election of others. We also have an ophthalmic surgeon on our full committee, who is one of our examiners. These facts are a sufficient guarantee that the interests of the profession in general, and the oculists in particular, will be jealously guarded, and that nothing will be allowed to pass the committee injurious to the interests of the profession. I also particularly wish to point out that the certificates issued by the Company are lent, and not given, to the successful candidates, and the committee are fully determined to recall them should the rules of the company be disregarded.

I am absolutely convinced, both from what I have heard and seen on all sides, that our scheme by giving increased knowledge to the optician, will be the means of very materially increasing the practice of the ophthalmic surgeon and medical man, by causing a very large number of people to seek professional advice who otherwise would have struggled on without it or would have been imperfectly treated by the optician himself. Properly educated opticians never prescribe glasses for cases which may need medical treatment or the high degree of skill which the oculist possesses. It is only the optical dealer who has no optical knowledge, or the quack, who encroaches on the ground of the surgeon or physician who does so, and the very fact of having the Spectacle Makers' Company's certificate will be a sufficient guarantee that the holder of it will not be of that kind.

We have been advised by our professional friends not to employ instructors who are medical men, as these might unconsciously encroach on the medical side of the subject, and our official teacher is consequently an optician. A good deal of the teaching is negative rather than positive, warning the students rather what cases not to undertake than what to deal with. Opticians always have undertaken cases of refraction and cannot be prevented from so doing; but they have not always understood what cases they might fit with safety and what cases should be sent to the oculist. The direction of the movement is not to send would-be patients to the optician, but rather to give him such intelligent knowledge as will enable him to send to the oculist all those who come to him for glasses who cannot at once be made to enjoy full vision. I append the questions which formed the written part of our examination, and which I venture to believe will meet with your entire approval.—I am, etc.,

W. THORNTHWAITE,
Master Spectacle Makers' Company.

Avonhurst, Chislehurst, March 7th.

QUESTIONS.

THURSDAY, MARCH 2ND, 1899, FROM 7 P.M. TO 10 P.M.

1. What are the essential optical differences between flint glass and crown glass? What other differences are there between them? Why is it necessary to use both kinds in optical factories?

2. Describe the optical properties of Canada balsam.

3. A narrow beam of sunlight entering by a small round aperture in a shutter is focussed upon a white card by means of a large bi-convex lens (of say 8 inches focal length) through the middle of which the light passes. Assuming that a distinct image has been formed at the full focal distance, what will be the effect on the image if (separately) the following things are done?—

(*a*) Shifting the lens sideways to the right so that the light passes through the lens near its margin.
(*b*) Tilting the lens obliquely, the light still passing through the middle.
(*c*) Changing the round aperture by substituting a square hole.

4. Enumerate the different shapes of simple (spherical) lenses which exist. Classify your list under two heads:

(*a*) Those in which the distance between the principal focus and the nearest face of the lens is the same for light passing in either direction through the lens, and
(*b*) Those in which the distance for light passing only one way through the lens is different from that for light passing through the other way.

5. When long-sighted persons want to read print they are often observed to pull their spectacles down their nose, increasing the distances of the lenses from the eye. On the other hand, short-sighted persons habitually push their spectacles close to the eye. Explain in each case why they do so?

6. Formerly lenses were numbered according to their focal lengths. The modern system is to number them in dioptres. The change would not have been made unless there was some advantage to be gained. What are the advantages of the modern system of numbering?

7. Explain the principles on which Snellen's and Jaeger's test types are based. What relation do the reading types bear to distant ones?

8. A prescription is given to make up as follows:

$$\text{R}\ \frac{+\ 3{\cdot}5\ \text{D.S.}}{-\ 2{\cdot}25\ \text{D.C. axis } 30.} \qquad \text{L}\ \frac{+\ 2{\cdot}75\ \text{D.S.}}{-\ 4{\cdot}5\ \text{D.C. axis } 20.}$$

Show in what different ways the glasses could be made, and give reasons for your preference.

9. What are the advantages and disadvantages of periscopic glasses? A person requires a glass of

$$\frac{+\ 4\ \text{D.S.}}{+\ 2\ \text{D.C.}}\ \text{axis horizontal, in periscopic form.}$$

How would you make it?

10. What do you understand by the terms "prism dioptres" and "prismatic effect"?

A prismatic effect of 1° deviation is required on a 5 D.S. lens. How much must it be decentred?

11. To a + 8 D.S. lens I add another lens the power of which is unknown. I find two focal distances on the same side—namely, 114 mm. and 154 mm. What is the power of the lens?

12. Explain precisely what is meant by spasm of accommodation? State how you would recognise such a case and give your reason for referring it to an oculist?

THE GOVERNMENT MEDICAL SERVICE, BRITISH GUIANA.

SIR,—Permit me to call attention to the present condition of the British Guiana Government Medical Service.

This service was reconstituted by an ordinance in 1886, being made a department of the Government, with the Surgeon-General as head; the officers became amenable to the privileges and penalties of the rules and regulations of the Colonial Office, a sufficient staff being appointed to allow for the prompt relief of medical officers going on leave or becoming ill. A circular letter from the Surgeon-General's Office, dated November 9th, 1898, headed "Proposing a Scheme whereby Long Leave of Absence may be Regulated," was withdrawn; and another circular, dated January 18th, 1899, was issued stating that "in view of the number of qualified private practitioners now in the colony, it is not necessary to retain the three supernumerary officers who are employed to relieve other medical officers going on long leave of absence, and the earliest opportunity will be taken to reduce the medical staff accordingly."

This alteration is looked upon as a hardship, for it is not likely that any private practitioner having a practice will break it up by going to take a few months' work in any distant part of the colony, or even out of the city, and those who cannot make a practice leave the colony, as five have done within the last few years.

Medical men often suffer from malaria, and I have recently seen a man who had suffered for a considerable time from a low, ill-defined malaria, not yielding to treatment, whose departure was delayed until he had alarming attacks of collapse, with irregular intermittent pulse and marked dilatation of the right ventricle. All other departments are so managed that the members can take their full pay vacation leave and half pay leave on the ordinary rules of the Colonial Office. It should be noted that the new leave scheme does not apply to the Surgeon-General nor to the medical inspector, who are to relieve one another. A large majority of the staff took office long before the present Surgeon-General came into office, on the general understanding that their privileges were to be governed by the Colonial Office rules. They consider—and I think rightly—that there will be something in the nature of a breach of contract if they are now forced to give up an important privilege that has often been the means of saving their health and even their lives.

The suggested reduction of the staff has been more than carried out by anticipation within the last three years; four Government medical officers have retired, and one has died. These five vacancies have not been filled.

Vaccination is one of the duties of the district medical officers, the fee of 24 cents being paid from a special vote passed annually. A circular of January 18th, 1895, urged the district medical officers "to do their utmost to carry out at once the provisions of the vaccination law." A circular dated May 30th, 1896, restricted vaccination to "young infants," and in some cases the passing of the accounts has been refused because some other persons having presented themselves for vaccination and having been vaccinated, had also been included in the account. This happened whilst the neighbouring country of Venezuela was the seat of a severe small-pox epidemic. It must be stated that a circular dated February 6th, 1899, withdraws all vaccination circulars. Vaccination is compulsory in this Colony, and it appears that no public vaccinator can refuse to vaccinate any person asking to be operated on.

As an example of administrative method it may be stated that an order was issued that no Government medical officer on the staff of the public hospitals should be allowed to be absent between the hours of 8 A.M. to 4 P.M. (a further minute altered this from 8 A.M. to 2 P.M.) without stating to the resident surgeon the nature of his urgent private affairs. These Government medical officers are not raw youths; they are qualified men of over 30 years of age.

The work done by the Government medical officers of this service is arduous, and in some cases necessitates long journeys in the heat of a tropical climate; in other cases long hours in hospital wards, all the time in a country reeking with malaria—should they not be permitted to enjoy their privileges unimpaired as much as the officers of any other department?—I am, etc.,

F. H. EDMONDS.

Georgetown, British Guiana, Feb. 15th.

PRELIMINARY EDUCATION IN IRELAND.

SIR,—I observe in your reference to the above subject in this day's number of the BRITISH MEDICAL JOURNAL that after commenting on the insufficiency of the standard of the lower grade examinations as hitherto conducted by the Intermediate Education Board, you add, "It is this lower grade which the General Medical Council still accepts as adequate, and which the Royal Colleges of Physicians and Surgeons in Ireland are asking to be applied to young men of 17 or 18 years of age." The latter part of this paragraph is inaccurate. I appeared before the Commission on behalf of the Royal College of Physicians, and Sir William Thomson on behalf of the College of Surgeons, to request that "an examination suited to the requirements of medical students in regard to the age of candidates, standard, and frequency be held."

The first question put to me by the President was, "What are the alterations in the examinations you would suggest?" To which I replied, "That it would need to be an absolutely separate examination. I do not see at present how your rules could be modified so as to suit us." Further I stated—I am so reported in the daily papers to have said—that "as to standard, the Colleges wish these examinations to be in all respects up to the requirements of the General Medical Council, and above the standard of some of the examinations recognised by the Council."

The reason which influenced the General Medical Council, or, to speak more accurately, the Education Committee of the Council, in urging that the examinations conducted by the Intermediate Education Board be utilised by medical students in Ireland is, that the Council is desirous of seeing the examinations in Preliminary Education conducted by examiners appointed by the Royal Colleges in Ireland discontinued, because the Council is of opinion that such examination should not be conducted under the auspices of Medical Corporations, in which opinion the Royal Colleges of Physicians and Surgeons in Ireland fully concur, and they continue to conduct them only because there is not in Ireland any other examination suited so the requirements of medical students. The Education Committee, however, admit that the Examination Board appointed by the Colleges "consists of men of experience and standing in the educational world who are otherwise unconnected with the Colleges," the excellence of the standard is above question.—I am, etc.,

Dublin, March 4th. LOMBE ATTHILL, M.D.

⁂ We relied upon the following passages of the report in the *Irish Times*, February 18th:

1. Dr. L. Atthill: At the present time, sixteen years was the maximum age for passing in the junior intermediate grade, which was earlier than the College wished; and if the candidate failed at the examination for that grade, he should have either to go on the following year at a higher grade examination, or be shut out altogether.

2. Question: Could you not fix your own standard? We could allow you to fix it in any grade you wished irrespective of age.

Sir William Thomson: At present the General Medical Council accepts your junior certificate as it stands. The only question is as to the possibility of providing us with another examination in the year.

MEDICAL AID ASSOCIATIONS.

SIR,—We have heard much and have read more about the dignity of the medical profession, but until the members have decided to disassociate themselves from such purely trading companies as the medical aid associations undoubtedly are, I for one fear that the public will not feel disposed to consider our calling in any way superior to the ordinary business ones.

This is a pushing and an advertising age, but I would humbly submit that a line must be drawn somewhere, and that the profession as a whole should protest against its members soliciting and canvassing for patients in the same way as tradesmen canvass for orders.

I would suggest that the British Medical Association Council should be asked to consider this very important subject, and inform their constituents that such proceedings do not meet with their approval. It is perfectly manifest that the tactics of these medical aid associations do induce medical men to follow in their wake. The medical profession is either a trade or a profession; and if it is the former, let it be understood that it is not unprofessional for a man to employ canvassers to go from house to house and induce the people to become members of a family club. If, as I hope, we decide that we still belong to an honourable profession, then we are bound to take strong measures to put an end to a system which is rapidly reducing medical men to the level of credit drapers.—I am, etc.,

March 4th. A MEMBER, B.M.A.

THE PROPOSED SCHOOL OF TROPICAL DISEASES.

SIR,—In the correspondence on the Tropical School of Medicine there has been no mention of one important part which such a school should play, namely, the chances it will give to those who are already practising medicine in the tropics of seeing diseases from other tropical countries. It hardly seems to be generally recognised how local are some of the important diseases, and that the knowledge of them is still more local.

There are diseases, such as Maltese fever and beri-beri, which are probably widely distributed, which are known by different names, and attributed to divers causes by those who have never had the opportunity, even in a long and varied experience, of making such comparison, and have been misled by minor differences in the clinical accounts of the disease they have read. For these purposes cases must be drawn from as wide an area and from as many races as possible, and no port can supply this want so well as London. Acute cases are more required than chronic, and the number, if well selected, need not be large.

For some time past great use has been made, to my knowledge, of the Branch Hospital by tropical practitioners, and the work done has been most beneficial to themselves and their patients. A laboratory, to be useful for those engaged in the tropics, must be attached to the hospital. In even the best supplied colonies the proportion of medical men to the population is barely one-fifth of what it is in England, whilst the death-rate, and presumably the sick-rate, is everywhere higher. Little can, under those circumstances, be done in the way of elaborate process, but it is essential that the necessity of microscopic examinations for diagnosis and treatment should be demonstrated, and the readier methods of manipulation. The Branch Hospital, Victoria and Albert Docks, has been of great use in the past, and when enlarged may be more so. The other institutions mentioned have done nothing for colonial practitioners of medicine, whilst the amount of useful information retained after the ordinary course is worthless.—I am, etc.,

C. DANIELS.

Calcutta, January, 1899. Colonial Medical Service.

TUBERCLE OF THE BREAST.

SIR,—In the BRITISH MEDICAL JOURNAL of February 18th (EPITOME, No. 120) reference is made to a paper on tubercle of the breast, by Halsted and Le Count, in which the first description of this disease is assigned to Astley Cooper.

I am desirous of calling attention to the fact that mammary tubercle had previously been clearly discriminated by John Hunter (1728-93); and Cooper probably learnt most of what he knew about it from Hunter.

When I published my work on *Diseases of the Breast* (1894) I was unaware of the priority of Hunter's claims. I then wrote: "The history of mammary tuberculosis is that of a disease once well recognised, which after a time, having fallen into oblivion, has in comparatively recent times been rediscovered. Astley Cooper, Nélaton, and Velpeau long ago published excellent descriptions of it." So completely had these old descriptions been forgotten, that this was a revelation to most contemporary pathologists; but it did not go far enough. Not only had Hunter previously described mammary tubercle, but he had also pointed out how to differentiate it from cancer, which many modern practitioners seem unable to do.

In describing a case, he says: "I have seen a truly scrofulous breast, which came on at the age of 26, and increased gradually to 38. It was 18 to 20 lbs. in weight. In this case there was no disease leading to the axilla, so that I dissected it out, and it healed kindly, although the patient had other scrofulous appearances at the time."[1]—I am, etc.,

Clifton, Feb. 18th. W. ROGER WILLIAMS.

STATISTICS REGARDING SCHOOL CHILDREN'S VISION.

SIR,—Several papers have been recently published[2] in the BRITISH MEDICAL JOURNAL regarding carefully-made tests of school children's vision, but in each case the method of arranging the results has been such that they are practically worthless for comparison or collation with other results. This is especially illustrated where one writer gravely discusses the 80 per cent. defective out of 5 ex-VII girls examined; 3 of the 4 "short-sighted" might have been found hypermetropic if retinoscopy had been done.

Any deductions dealing with such numbers as the papers referred to are open to considerable errors, and may possibly lead to wrong deductions. A comparison of one single school against another is also risky from the same reason, that the age and sex distribution of the children is neglected.

The only useful way to arrange statistics regarding school children is to take large numbers, and in the first place distribute in age groups, and better, too, with the sexes separated. If this is done the opinions of the writers would be considerably modified. From analysis of over 50,000 tests of Bradford Board school children carried out since 1893 there seems little reason for supposing that the elementary school has much to do with deterioration of vision. It seems that social circumstances and general environment have a greater share than the ordinary Board school; school headaches in nine cases out of ten being due more to malnutrition and debility, and, as far as the school is concerned, foul air poisoning, than to error of refraction, which last does not seem a common cause in young children.

For comparison the following results referring to visual defect in children of both sexes, and using both eyes, quoted from the paper[3] referred to, may be useful:

(39,000 Children in Bradford Board Schools.

Standard	I	II	III	IV	V	VI	VII	Ex.VII
Per cent. defective vision	43	31	25	22	19	16	14	12

Taking the distribution by ages (15,552).

Age last birthday	6	7	8	9	10	11	12	13
Per cent. defective	47.8	35.7	28.3	24.6	24.5	19.0	19.3	18.8

The drop at the age of 11 is probably partly due to the elimination of many poorer children sent to work.

On the other hand, if only children from one standard be taken (3.145 children, Standard III):

Age last birthday	8	9	10	11	12
Per cent. defective	25	28	27	33	36

which shows a connection between visual defect and intellectual progress in school.—I am, etc.,

JAMES KERR. M.A., M.D.Cantab.,

February 20th. Honorary Surgeon, Bradford Eye and Ear Hospital.

THE NEED FOR FURTHER VACCINATION LEGISLATION.

SIR,—I am very glad to see Dr. Dixey's letter on this subject in the BRITISH MEDICAL JOURNAL of February 25th, and strongly support his view that the Government should bring in a Bill dealing with the revaccination question, notwithstanding the announcement made by Mr. Balfour to the contrary. The clause supporting the conscientious objector in the Act of last session should also be repealed, for as it is now carried out in the magisterial courts—of which I have had some experience, being on both county and borough Bench in my division—it is nothing more or less than a stupendous farce. Had the exemption certificate involved the applicants in the payment of 40s. instead of half a crown, these conscientious objectors would long ago have disappeared, and we should have heard very little by this time of these small-pox promoters. The present is the time for action; it is useless to delay until a small-pox epidemic is in our midst; and I hope the profession will express its opinion in a decided manner. There are no doubt numbers in our ranks who helped at the last election to place the present Government in power, but unless we get some definite pledge on this matter, I for one—and I know many who are of my opinion—shall hesitate before I vote again for a party which has reserved to itself the sacred right of spreading a fearful epidemic through the land.—I am, etc.,

Evesham, Feb. 25th. A. H. MARTIN.

LUNACY LAW AND BORDERLAND CASES.

SIR,—As long as Dr. Reichardt and his friends confined themselves to self-defence, it would have been needless for anyone taking different views to interfere. But when, as in his letter in the BRITISH MEDICAL JOURNAL of February 25th, a covert attack is made upon asylums, and a policy advocated of truckling to the astounding ignorance and prejudice that exist not only among the lay public, but also among many of the medical profession with regard to these institutions, it behoves someone connected with them to take up the cudgels.

Now the use of the word "incarceration," repeated half a dozen times with gusto in his letter, is nothing more or less than a transparent logical *suggestio falsi*. For it suggests the analogy of a prison, where people are confined for punishment, and implies that patients are sent to asylums not for treatment and cure, or for the amelioration of their lives, when the latter is impossible, but for the same reason that persons are sent to prison. Now I will assert that there is not a single asylum, lunatic hospital, or licensed house in the United Kingdom, that is carried on otherwise than on the lines that I have indicated. On the other hand, the lot of insane persons treated in private dwellings is often an unhappy one. Deprived of fresh air and exercise; sometimes confined to a single room, from lack of proper grounds for these purposes; mechanically restrained by illegal and cruel means, such as being strapped down in bed, from lack of an adequate staff, and the proper asylum accommodation (even the few humane means of mechanical restraint sanctioned by the Commissioners are seldom used in asylums); deprived of the right of visitation by those lawfully appointed for the purpose (for no conceivable Board of Commissioners would be adequate if such a system came into general use) the recovery rate of these patients is much lower than that of those treated in asylums. And with regard to suicidal cases, I have heard an eminent authority on lunacy say that no person ever did from any motive commit suicide who was not insane. But without going as far as this, it is certain that any person who commits suicide without any adequate objective cause, but from a subjective feeling of mental anguish, profound depression or misery, due doubtless to physical causes, is insane and ought to be put in an asylum where only can those precautions be put into force that are essential for his or her safety.

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[1] Lecture XXI, On Principles of Surgery. Palmer's Edition of Hunter's Works, vol. i, 1835.

[2] BRITISH MEDICAL JOURNAL, June 18th, 1898, January 14th, 1899, and February 18th, 1899.

[3] *Statistical Journal*, September. 1897.

The selfishness of relatives who would avoid at any cost insanity being connected with their family ought not to be regarded, and is responsible for many a life temporarily clouded, which if adequate means had been taken for its preservation for a time would have been capable of future usefulness and enjoyment.—I am, etc.,

Finsbury Park, N., Feb. 26th. G. E. MOULD.

OXYGEN INHALATIONS IN THE TREATMENT OF ACUTE AND CHRONIC DISEASES OF THE LUNGS.

SIR,—The method of administration of oxygen recorded by Dr. Stoker in the BRITISH MEDICAL JOURNAL, page 559, proved a failure in a case of my own owing to the difficulty of regulating the supply, and also to the posterior nares becoming swollen and thus blocking the admission of gas.

It would appear that there is no recognised and uniform method of administration of oxygen in lung diseases, for one advises a Hewitt's N_2O facepiece, another the simple tube in nostril, another the opening of a cylinder of oxygen in the sick room.

I find no comparative record of cases treated with oxygen by different methods, nor any reference to the proper quantity and pressure, and the period for which it ought to be administered.—I am, etc.,

Kirkby-Stephen, March 6th. B. WALKER, M.D.

OBITUARY.

JAMES Y. TOTHERICK, M.D.ST.AND., M.R.C.P.EDIN.

DR. TOTHERICK, the much-respected Physician to the Wolverhampton and Staffordshire General Hospital, who died recently at his residence, Parkdale, Wolverhampton, had been in failing health for two or three months, and his death was due to anæmia.

Dr. Totherick was born at Perth of Scottish parentage. He received his education at Edinburgh University, and became L.R.C.P. and L.R.C.S.Edin., and M.D.St.Andrews, in 1862; in 1872 he became M.R.C.P.Edin. For some years he practised at Sudbury, Derbyshire; but in 1872 he went to Wolverhampton, and was appointed Honorary Physician to the Wolverhampton and South Staffordshire General Hospital. On leaving Sudbury he was presented by his friends with a gold watch as a mark of their high esteem. He afterwards won a high reputation in Wolverhampton, for he had a heartfelt sympathy with suffering and sorrow, and showed untiring devotion to his duties at the hospital and to his private patients.

Dr. Totherick was mainly instrumental in starting the working men's Hospital Saturday collections in Wolverhampton. At considerable sacrifice he visited the various works of the town and district, and explained his scheme to the workmen. The movement has since become a source of invaluable aid to the hospitals of the town, and the General Hospital in particular. On March 9th, 1897, he was presented with a portrait in oils of himself, painted by Mr. G. Phœnix, which now hangs in the Board Room at the hospital. On that occasion he spoke of the need of reform in hospital management, urging that the out-patient department should be used solely for the purpose of consultation, and not for treatment or for dispensing drugs, and that every medical man in the district should have the right of sending a case there for a second opinion. He believed that was the only way to check abuses of the charity, and to gain the sympathy of the medical profession. Canon Davis, in presenting the portrait, said that it was given as an expression of the high esteem in which Dr. Totherick was held by all classes of society, and in recognition of his valuable and faithful services for twenty-five years as honorary physician of the institution. The entire community joined in making the presentation.

Dr. Totherick was a member of the Wolverhampton Board of Guardians for some years, and Chairman of the Board in 1897-98. He was a Liberal in politics. He was a man who hated shams and counterfeits of all kinds, and was himself of exemplary life and most rigid consistency.

He was elected first President of the Wolverhampton Literary Club after its reconstitution in 1890. He possessed much literary ability, and the club benefited by this in several valuable papers on subjects of interest. Three years since he undertook a voyage round the world, and returned much benefited in health. He subsequently delivered a very interesting illustrated lecture on his travels. He was for many years also an active member of, and valued contributor to, the Staffordshire Branch of the British Medical Association, and the members at a recent meeting recorded the expression of the great loss they had sustained by his death, and passed a resolution of sympathy with his widow (see page 558). Dr. Totherick has left no children.

MICHAEL AUSTIN BOYD, M.D.BRUX., F.R.C.P.I.,

Dublin.

WE learn with much regret of the death of Dr. M. A. Boyd of Dublin, which occurred at his residence, 30, Merrion Square, on March 5th. Dr. Boyd had been out hunting on the previous Saturday week, and got a severe wetting. The run was long, and he walked his horse home a distance of many miles. He felt unwell next day and remained in bed, but he rose to attend the urgent call of a sick friend, and on his return he found himself seriously ill. He at once summoned the aid of one of his colleagues, who discovered that Dr. Boyd was suffering from double pneumonia. Treatment did not arrest the disease. On March 4th symptoms of meningitis supervened, and on the following day he died. Sir Francis Cruise, Dr. Redmond, and Dr. Hayes were unremitting in their care of their friend. A tragic aspect is given to the occurrence by the fact that Dr. Boyd's mother, who resided with him, died of shock on the day after her son.

Dr. Boyd became a Licentiate of the College of Surgeons just thirty-one years ago, and obtained the Fellowship in 1874. He began practice in Kingstown, and was one of the original staff of St. Michael's Hospital in that town. After some years he was appointed Visiting Physician to the Mater Misericordiæ Hospital in Dublin. In 1888 he obtained the M.D. of Brussels, and in 1894 he was elected a Fellow of the Royal College of Physicians in Ireland.

Dr. Boyd was one of the most respected members of the profession in Dublin. He attracted many friends by his conciliatory manner, and, although he was a man with views, he never offended anyone's susceptibility by inopportune advocacy of them. As a physician he was very well informed. His industry was marked, and the earnestness of his clinical work and observation made him a very sound and attractive clinical teacher. He contributed many useful papers to the journals. His death in such sad circumstances has caused sincere and widespread regret. Dr. Boyd was unmarried.

FRANCIS NOTTIDGE MACNAMARA, M.D.,

Late Professor of Chemistry, Medical College, Calcutta.

DR. FRANCIS NOTTIDGE MACNAMARA, after passing through a distinguished career at King's College, entered the East Indian Medical Service in the year 1853. He was appointed Professor of Chemistry at Calcutta, and Chemical Examiner to the Government of India, and continued to hold this appointment until the year 1870, when he left India. On his return to England he was appointed Chemical Examiner to the Indian Government, and held this post down to the time of his death. Throughout this long service Dr. Macnamara did a vast amount of work of a highly technical and scientific kind. It is difficult for those unacquainted with the climate of Calcutta to realise the nature of his employment, day after day, and year after year, working in a close, badly-ventilated laboratory, in which the most delicate chemical analyses had to be carried on. Among other duties it was his business to report on the contents of the stomach and other organs which were sent to him from all parts of Bengal in suspected cases of poisoning, a method of disposing of inconvenient persons by no means uncommon among the natives of India. Specimens of gunpowder and other explosives used by the military authorities in Bengal were referred to him for analysis. Beyond this he had to give a full course of lectures every year on chemistry to the large class of medical students attending the Calcutta College and University. His work on the *Climate and Medical Topography in their relation to the Disease Distribution of the Himalayan and Sub-Himalayan Districts of British India* is well known, and is full of accurate information on the subject of which it treats.

Dr. Macnamara was persuaded many years ago of the danger of using water contaminated with various impurities, and at a time when the sanitary advisers to the Government of India scouted the idea that cholera and other diseases were disseminated by means of a specific poison in drinking water which caused these diseases, he strove to impress on the Government correct views on this subject. He did much towards initiating and perfecting the scheme by which Calcutta has been supplied for many years with pure water, and thus helped largely to reduce the death-rate from cholera in the metropolis and throughout the cantonments of India.

Dr. Macnamara gave up a lucrative practice in Calcutta because he found it occupied more of his time than he thought right, and interfered with his Government work. He was held in great respect by his class of students and by the natives of Calcutta, and was without exception one of the most hard-working and unselfish men who ever entered the service of the Government of India. Few ever did better work in a more unobtrusive manner; he was foremost amongst those to congratulate others who gained honours and titles for professional or other work, but it never seemed to enter into his mind that he above other men was entitled to them. And so he died without any mark of approbation from the Government he had served so long and so well, but honoured and loved by those who had the privilege of knowing him as a wise, sympathetic, and trusted friend, far above the ordinary run of men.

JOHN STUART SMITH, M.D.EDIN.

A NOTABLE link with the medical past (he was the personal friend of Sir James Simpson and Sir Robert Christison) has been broken by the death of Dr. John Stuart Smith, retired Staff Surgeon-Major, Army Medical Department, who died on March 1st at his home at Stuart Lodge, Polwarth Terrace, Edinburgh, at the advanced age of 84.

Dr. Smith was a son of Alexander Smith, of Archieston, in the county of Moray; his mother was a daughter of Donald Stuart, of Leanchoil, Abernethy, and a full cousin of Sir James McGrigor, who was during his time not merely the Director-General and the autocrat of the Army Medical Department, but was in a sense the creator of the Department.

John Stuart Smith, after a preliminary education at home and at school, entered the University of Aberdeen, took a full course in Arts, and graduated M.A. in 1834 or 1835. He then came southwards to the University of Edinburgh, where he graduated M.D. in 1839, when he must have been about 24 years of age. In the same year he became a Licentiate of the College of Surgeons of Edinburgh.

Under the guidance of his masterful relative, Sir James McGrigor, who was then Director-General, young Smith entered the Army Medical Department. He was twice on active work in India, and was in the first Chinese war, during which he was present at the capture of Canton. During the great Irish epidemic of typhus fever, in 1847-48, he was in charge of the civil hospital at Cork, and the large district of which Cork was the centre. Later he was in the Maori War. Hard work and varying climates affected his health, and in 1865 he was compelled to retire from active medical service. He chose Edinburgh as his evening home, and there he made himself useful and helpful in many ways. He had many friends in the medical profession, both in the present and in the former generation.

His younger brother, Lord Strathcona and Mount Royal (better known, perhaps, as Sir Donald A. Smith), is High Commissioner for Canada in London.

Dr. Smith has left two daughters to mourn his death.

THERE died at Antwerp on March 1st Dr. ABRAHAM MAYER, full of years and honours. Born at Düsseldorf in 1816, he would have completed his 83rd year had he lived until next July. He was an ex-President of the Society of Medicine of Antwerp, ex-Vice-President of the Belgian Medical Federation, Member of the Royal Society of Public Medicine, Medical Inspector of the Communal Schools of Antwerp, and had received the decoration of the first-class of the Civil Cross. It was only last September that he celebrated the Diamond Jubilee of his Doctorate. The admiration entertained for him by all classes were manifested by the fact that, though he was a Jew and a Liberal, the whole celebration was carried out by Conservatives and Catholics. The streets were decorated on a lavish scale, with flags, Venetian masts, and triumphal arches, which at night were illuminated with Chinese lanterns. Deputations were coming to the Doctor for twelve hours together, while the streets rang with the cheers and *vivas* of the crowd gathered near the house. The bouquets sent filled two large rooms. Dr. Mayer was a very able medical practitioner, and contributed largely to the literature of his profession, and his general knowledge was encyclopædic.

THE death took place at Lewisham on February 27th, 1899, in his 80th year, of JAMES CLEMENT SARGEANT, who for upwards of forty years held the office of Bedell to the Society of Apothecaries of London. His figure was well known to former candidates, to whom his manner was always courteous. By his death the Society has lost a much valued and faithful servant.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. Manoel Joaquim Saraiva, Professor of Hygiene in the Medical Faculty of Bahia; Dr. G. H. Robé, Professor of Materia Medica and Therapeutics in the College of Physicians and Surgeons of Baltimore, Superintendent of the new Maryland State Hospital for the Insane, President of the American Public Health Association, and ex-President of the Medico-Chirurgical Faculty of Maryland and of the American Association of Obstetricians and Gynæcologists, aged 48; and Dr. Hugues Evariste Desrosiers, Professor of Materia Medica in the Medical Faculty of the Laval University, Montreal, formerly Editor of the *Union Médicale du Canada*, and author of a *Traité de Matière Médicale et de Thérapeutique*, aged 45.

ROYAL NAVY AND ARMY MILITARY SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: WILLIAM J. COLBORNE, Staff-Surgeon, to the *Boscawen*, for the *Agincourt*, February 28th, HAROLD HUSKINSON, M.B., Surgeon, to the *Cambridge*, February 28th; GERALD B. BROWN, Surgeon, to the *Vivid*, additional, January 17th, HENRY W. W. TOWNSEND, Surgeon, to the *Jupiter*, March 4th; THOMAS S HARTLEY, Surgeon, to the *Victory*, for Royal Naval Barracks, March 11th; WILLIAM TAIT, M.D., Staff-Surgeon, FREDERICK W. PARKER, and JOHN C. DURSTON, Surgeon, to the *Warspite*, March 28th; JOHN H. STENHOUSE, Staff-Surgeon, to the *Algerine*, February 28th.

Fleet-Surgeon Alexander McBride, M.D., died at Weston-super-Mare, aged 67, suddenly. He was appointed Surgeon, May 18th, 1855; Staff-Surgeon, February 14th, 1865; and Fleet-Surgeon, February 3rd, 1876. He retired from the service, November 30th, 1876. He served in the Baltic fleet in 1855 in the *Hastings*, was present at the bombardment of Sveaborg, and received the Baltic medal.

ARMY MEDICAL SERVICE.

SURGEON-GENERAL H. S. MUIR, M.D., is appointed Deputy-Director-General, *vice* Surgeon-General W. Taylor, M.D., C.B., who has vacated that appointment, February 16th. Surgeon-General Muir's commission are as follow: Assistant-Surgeon, March 31st, 1864; Surgeon, March 1st, 1873; Surgeon-Major, April 28th, 1876; Brigade-Surgeon, November 1st, 1885; Surgeon-Colonel, December 23rd, 1893; and Surgeon-Major-General November 30th, 1896. He was in the Afghan war in 1878-80, including the engagement at Shahjui, and received the medal for the campaign.

Deputy-Inspector-General JOSEPH JEE, V.C., C.B., half-pay, late Medical Department, is appointed Honorary Surgeon to the Queen, *vice* Surgeon-General Sir James Mouat, K.C.B., V.C., deceased, March 8th. Deputy-Inspector-General Jee was appointed Assistant-Surgeon, April 15th, 1842; Surgeon, June 23rd, 1854; Surgeon-Major, April 15th, 1862; and Honorary

Deputy-Inspector-General on retirement on half-pay, March 4th, 1868. He served in the Persian war in 1857, including the night attack and battle of Kooshab, and bombardment of Mohumrah (medal with clasp). With Havelock's column in the several actions leading to and ending in the relief of the Residency of Lucknow and subsequent defence; with Outram's force at Alumbagh, including the repulse of the numerous attacks, and operations ending in the final capture of Lucknow; present with Brigadier Campbell's columns in the affairs of March 20th and 21st; also the Rohilcund campaign in 1858, and capture of Bareilly (medal, with two clasps, C.B., Victoria Cross, and a year's service for Lucknow).

ROYAL ARMY MEDICAL CORPS.

SERGEANT-MAJOR JOHN C. B. WHITEHORN is appointed Quartermaster, with the honorary rank of Lieutenant, *vice* Honorary Lieutenant W. T. Vidler, cashiered by sentence of a general court-martial, March 8th.

Surgeon-Major **JOHN STUART SMITH**, M.D., died at Edinburgh on March 1st, after a prolonged illness, aged 84. He entered the service as Assistant Surgeon, November 22nd, 1839; became Surgeon, October 27th, 1848; Surgeon-Major, November 22nd, 1859; and retired on half pay, January 21st, 1862.

Lieutenant **THOMAS H. M. CLARKE** has been appointed a Companion of the Distinguished Service Order, in recognition of his services during the outbreak at Kandia on September 6th, 1898.

ARMY MEDICAL RESERVE.

SURGEON-LIEUTENANT CONRAD T. GREEN, 1st Volunteer Battalion the Cheshire Regiment, is appointed Surgeon-Lieutenant, March 8th.

INDIAN MEDICAL SERVICE.

SURGEON-MAJOR JOHN BOWRON, M.D., Bengal Army, Retired, died at Medina Villas, Hove, on March 5th, in the 101st year of his age.

THE VOLUNTEERS.

SURGEON-MAJOR R. J. GARDEN, 1st Aberdeenshire Artillery, has resigned his commission; he is also granted the rank of Surgeon Lieutenant-Colonel, and is permitted to retain his uniform, March 4th.

Surgeon-Major **H. COLGATE**, M.D., 2nd Sussex Artillery, is promoted to be Surgeon-Lieutenant-Colonel, March 4th.

Mr. **ELISHA H. MONKS** is appointed Surgeon-Lieutenant in the 2nd Lancashire (St. Helens) Engineers, March 4th.

Surgeon-Lieutenant **G. V. WORTHINGTON**, M.B., 4th (Cambridge University) Volunteer Battalion the Suffolk Regiment, has resigned his commission, March 4th.

The undermentioned Surgeon-Lieutenants are promoted to be Surgeon-Captains, March 4th: D. D. **MONRO**, M.B., Galloway Rifles; A. H. **VERNON**, 4th Volunteer Battalion the Hampshire Regiment; P. S. **SPOKES** and J. W. **PARE**, M.D., 17th (North) Middlesex Rifles.

Mr. **GEORGE A. COHEN**, M.B., is appointed Surgeon-Lieutenant in the 1st Tower Hamlets Rifles, March 4th.

Surgeon-Lieutenant A. B. **LYON**, M.B., 2nd Middlesex Rifles, is promoted to be Surgeon-Captain, March 8th.

Mr. **RICHARD G. WORGER** is appointed Surgeon-Lieutenant in the 1st Volunteer Battalion Prince Albert's Somersetshire Light Infantry, March 8th.

Surgeon-Lieutenant-Colonel M. **BENNY**, M.D., 4th (Stirlingshire) Volunteer Battalion Argyll and Sutherland Highlanders, has resigned his commission, March 8th; he retains his rank and uniform.

HEALTH OF THE FRENCH ARMY.

THE army medical statistics of 1898, just published by direction of the Minister of War, state that the sanitary condition of the French army was more satisfactory than during the two previous years. The lessened mortality is owing to a decrease in deaths from influenza, typhoid fever, and acute pulmonary affections. Young soldiers reported "good for service, but with infirmities," are no longer accepted.

BACTERIOLOGICAL EXAMINER IN INDIA.

THE Government of India have applied for the services of Major Davies, Royal Army Medical Corps, to be extended for another year at army headquarters. This had been recommended by the late Principal Medical Officer, Her Majesty's Forces, India (Surgeon-General Gore), before he left India.

THE OPERATIONS ON THE GOLD COAST.

THE *London Gazette* of March 7th publishes a despatch from the Secretary of State for the Colonies, in which he brings to the notice of the Marquis of Lansdowne the names of the officers and non-commissioned officers whose services in connection with the occupation of the protected territories adjacent to the Gold Coast and Lagos and on the Niger appear to Mr. Chamberlain to be deserving of special recognition. Among them are the following:—In the Northern Territories of the Gold Coast: Dr. E. H. Tweedy, Assistant Colonial Surgeon, Gold Coast; Dr. J. O. Coker, Assistant Colonial Surgeon, Gold Coast. In Lagos: Captain E. M. Hassard, Royal Army Medical Corps; Dr. W. W. G. H. Best, Assistant Colonial Surgeon, Lagos; the late Dr. F. W. Rock, Assistant Medical Officer, West African Frontier Force.

ARMY MEDICAL OFFICERS AND PLAGUE DUTY.

THE *Pioneer of India* of January 29th draws attention to the unhandsome treatment by the Government of India of officers generally, and especially of the Royal Army Medical Corps, employed in the very arduous and hazardous plague duty.

We fully endorse our contemporary's contention that, if one duty more than another should have been expected to call forth generous special recognition by the civil power, it would be that of fighting a pestilence, at great personal risk, among a helpless and ignorant but fanatical population. Yet it is asserted that the military men who gallantly and successfully carried out such a grave imposed civil duty remain practically unrewarded. There can be no surprise that so unaccountable an omission has evoked feelings of pain as well as wonder.

Our contemporary writes: "It was noted as an extraordinary feature about the New Year honours that, while the Indian Government had gone out of its way to bestow a civil order of its own on a General for purely military service in the Frontier campaign, the two Generals who might have very fitly received the Star of India or the Indian Empire for their distinguished services in combating the plague went without any recognition. The indisposition to reward plague work in the British service seems to extend all down the line. The resuscitated Order of St. John of Jerusalem was conferred, very deservedly, on four officers of the Indian Medical Service; but their comrades of the Royal Army Medical Corps, who worked side by side with them, are left quite unrecognised.......When the plague was at its worst in Bombay in 1897, there were no fewer than seven officers of the Army Medical Staff, as it then was, working under the Bombay Plague Committee—namely, five in Bombay city, one in Calaba, and one in Kutch Mandavie. Their services in this capacity were purely civil and entirely in the benefit of India; and it would have been thought that the Government of India would have found a particular pleasure in signifying its approbation of the work of officers who had thus served it outside the run of their ordinary duties. Under these circumstances, can it be wondered that the omission of any mention of the army medical officers, though probably nothing more than an oversight, is felt to be marked?"

If the omission were only an oversight, why has it not been rectified, since it has attracted public attention and cause adverse comment? Or was there some official informality, such as the neglect of superiors to report the good services of officers on plague duty to the favourable consideration of the Government? In either or any case the omission is in no sense creditable to those concerned.

ORDERLY DUTY IN THE R.A.M.C.: A SUGGESTION.

CAPTAIN R.A.M.C. writes: Probably the most irksome duty at home is orderly duty. A few years ago it was the exception for officers with more than 12 years' service to be put on this duty, but at the present time many men with 18 or 19 years' service are detailed for it. At small stations the duty is a modified one, but at the larger stations the orderly officer has to spend his time in the hospital (most often with nothing to do), and sleep there at night. I would suggest that all officers be posted straight from Aldershot to the larger station hospitals for duty, if possible in pairs. Let them be given quarters in the hospital, be in the position that house-surgeons are in civil hospitals, and on duty on alternate days. Let them be relieved every six months by men fresh from the depôt. They would in this way learn the routine work of military hospitals, and relieve the senior men from orderly duty. Orderly duty has much to do with making old officers tired of the service.

MAJOR R.A.M.C.—The reward of good work should not be given grudgingly, as rather seems to be the case with the Indian Government. It is inevitable that there should be some grumbling when this is so.

MEDICO-LEGAL.

MEDICAL ADVERTISING IN INDIA.

SEVERAL Indian correspondents have complained of the advertisements inserted in the *Pioneer* by Dr. H. D. McCulloch, who seeks to practise as an ophthalmic and aural surgeon at Delhi, and is conducting an "eye and ear infirmary" in that city, towards the maintenance of which he invites subscriptions and donations. Dr. McCulloch is registered as a graduate of the University of Glasgow, and does not appear to belong to any other corporation nor to the British Medical Association. We are not aware that the General Medical Council has ever given a distinct expression of opinion upon the subject of advertising which could be considered to be of general application, but an attempt might be made to get that body to take up the question.

THE ROYAL BLUE BOOK.

AT the end of the Royal Blue Book is a "Trades and Professional Section." It is stated that "the names in this section are inserted by special arrangement." In the edition dated January, 1899, the list contains entries under a number of trades, but the only professions represented, so far as we have noticed, are those of dentists and physicians and surgeons. There is only one dentist, but there are two physicians and surgeons, one of them a lady. We are disposed to think that the unexpected appearance of these two names in this list must be due to some misunderstanding.

MEDICAL TITLES.

MARS.—In the present state of the matter we can only refer our correspondent to the opinions expressed by Mr. Justice Lawrance and Mr. Justice Channell in the case of Hunter *v.* Clare. The judgments in which these opinions were expressed were published in full in the **BRITISH MEDICAL JOURNAL** of February 4th, page 301.

DEATH CERTIFICATION BY UNREGISTERED PERSONS.

OUR attention has been drawn to the following extract from the "Medical Column" of a weekly paper:

> "**ADMIRER.**—Certainly I can give a death certificate if a patient dies under my care. The Act says a certificate must be given by a *qualified* medical man, and says nothing about registration. But deaths in my practice are rare. I have a lady under my care who has turned her 100th year."

⁂ This statement is, of course, quite inaccurate, since it is expressly enacted that no certificate required by any Act to be given by any medical practitioner shall be valid unless the person signing the same be registered under the Medical Acts (see Sec. XXXVII of the Medical Act, 1858).

COLONIAL DEGREES.

GERALD.—Such a degree is not registrable in the United Kingdom, and when a degree which is not registrable is used it is wiser to indicate the university from which it has been obtained.

D. P. F.—The question is one upon which our correspondent should consult a solicitor, but whatever the letter of the law it appears to us that the partner who does not give the lectures may very well waive any claim.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE DEATH-RATES OF LONDON SANITARY AREAS DURING 1898.

IN the accompanying table will be found summarised the vital statistics of the forty-three sanitary areas of the metropolis, based upon the Registrar-General's returns for the year 1898. The mortality figures relate to persons actually belonging to the various sanitary areas, and are the result of a complete system of distribution of deaths occurring in the public institutions of London among the various sanitary areas in which the patients had previously resided.

The 132,432 births registered in London during 1898 were equal to a rate of 29.5 per 1,000 of the population, estimated at 4,504,766 persons in the middle of that year; this rate was lower than in any of the ten preceding years, during which the birth-rate averaged 30.9 per 1,000. In the various sanitary areas the birth-rates showed, as usual, wide variations, owing principally to the differences in the sex and age distribution of their populations. In Kensington, St. George Hanover Square, Westminster, St. James Westminster, St. Martin-in-the-Fields, and London City, the birth-rates were considerably below the average; while they showed a marked excess in St. Luke, Bethnal Green, Whitechapel, St. George-in-the-East, Mile End Old Town, St. George Southwark, and Bermondsey sanitary areas.

The deaths of persons belonging to London registered during last year were 82,037, equal to a rate of 18.3 per 1,000 of the population, against 19.4, 18.2, and 17.7 per 1,000 in the three preceding years; this rate was 1.0 per 1,000 below the mean rate in the ten preceding years, 1888-97. The lowest death-rates last year in the various sanitary areas were 11.7 in Hampstead, 13.2 in St. George Hanover Square, 13.7 in Stoke Newington, 14.4 in Wandsworth, 14.9 in Lee, and 15.3 in Lewisham (excluding Penge); the highest rates were 23.6 in St. Saviour Southwark, 23.8 in Limehouse, 24.4 in St. George Southwark, 24.8 in St. George-in-the-East, 24.9 in Holborn, and 25. in St. Luke.

During the year under notice 12,482 deaths were referred to the principal zymotic diseases in London; of these, 1 resulted from small-pox, 3,069 from measles, 581 from scarlet fever, 1,756 from diphtheria, 2,157 from whooping-cough, 3 from typhus, 554 from enteric fever, 9 from simple and ill-defined forms of continued fever, and 4,352 from diarrhœa. These 12,482 deaths were equal to a rate of 2.77 per 1,000, against 2.62, 3.11, and 2.56 in the three preceding years; this rate slightly exceeded the mean rate in the ten preceding years, 1888-97, which was 2.69 per 1,000. In the various sanitary areas the zymotic death-rates ranged from 0.8 in St. Martin-in-the-Fields, 1.29 in St. George Hanover Square, 1.40 in Hampstead, 1.51 in St. James Westminster, 1.56 in Stoke Newington, and 1.76 in Strand, to 3.90 in Bethnal Green, 3.95 in Shoreditch, 3.99 in St. George Southwark, 4.04 in St. Luke, 4.13 in Woolwich, and 4.26 in Limehouse. Compared with the averages in the ten preceding years, the mortality from measles and from diarrhœa showed an excess, while that from each of the other principal zymotic diseases was below the

Analysis of the Vital and Mortal Statistics of the Sanitary Districts of the Metropolis, after Distribution of Deaths occurring in Public Institutions during the Year 1898.

SANITARY AREAS.	Estimated Population middle of 1898.	Births.	Deaths.	Annual Rate per 1,000 Living. Births.	Annual Rate per 1,000 Living. Deaths.	Annual Rate per 1,000 Living. Principal Zymotic Diseases.	Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-Cough.	Typhus.	Enteric Fever.	Simple and Undefined Fever.	Diarrhœa.	Phthisis.	Deaths of Children under 1 year of age to 1,000 Births.
LONDON	4,504,766	132,432	82,037	29.5	18.3	2.77	12,482	1	3,069	581	1,756	2,157	3	554	9	4,352	7,746	156
West Districts.																		
Paddington	127,480	2,967	2,041	23.3	16.1	2.41	307	—	93	8	61	44	—	17	1	83	175	161
Kensington	172,174	3,633	2,809	21.2	16.4	2.02	347	—	120	24	26	52	2	13	—	110	217	181
Hammersmith	107,370	3,026	1,964	28.3	18.3	3.19	342	—	129	22	23	36	—	12	—	120	159	163
Fulham	125,275	4,307	2,155	34.5	17.2	3.16	395	—	59	35	61	41	—	18	1	180	164	164
Chelsea	96,713	2,332	1,752	24.2	18.2	2.73	262	—	92	15	41	26	—	14	—	74	168	176
St. George Hanover Sq.	80,608	1,411	1,059	17.5	13.2	1.29	104	1	35	4	10	16	—	9	—	29	105	130
Westminster	52,574	1,081	1,090	20.6	20.8	3.00	157	—	52	5	22	43	—	3	—	32	138	152
St. James Westminster	22,200	446	411	20.1	18.6	1.51	33	—	15	2	5	1	—	1	—	9	42	177
North Districts.																		
Marylebone	140,483	4,061	2,565	29.0	18.3	2.36	331	—	129	13	45	43	—	22	—	79	251	131
Hampstead	78,755	1,516	917	19.3	11.7	1.40	110	—	26	3	19	27	—	10	1	24	58	125
St. Pancras	243,416	6,857	4,651	28.3	19.2	2.49	602	—	111	53	95	87	—	41	—	214	432	170
Islington...	344,616	9,442	5,712	27.5	16.6	2.78	958	—	334	26	90	180	1	36	—	291	501	159
Stoke Newington ...	34,660	839	475	24.3	13.7	1.56	54	—	10	1	5	9	—	2	—	27	36	108
Hackney	219,630	6,445	3,588	29.4	16.4	2.64	576	—	111	30	120	94	—	41	—	180	304	152
Central Districts.																		
St. Giles	37,519	1,026	756	27.4	20.2	1.88	71	—	26	2	6	9	—	5	—	23	125	137
St. Martin-in-the-Fields	12,424	179	192	14.4	15.5	0.88	11	—	1	1	3	1	—	1	—	4	22	156
Strand	23,284	496	532	21.4	22.9	1.76	41	—	13	2	4	4	—	4	—	14	77	172
Holborn	30,056	807	747	26.9	24.9	3.37	101	—	35	2	22	12	—	2	—	28	95	181
Clerkenwell	66,120	2,072	1,432	31.4	21.7	3.75	246	—	61	13	36	35	—	7	—	94	155	196
St. Luke	41,076	1,853	1,054	45.2	25.7	4.04	165	—	37	15	24	24	—	2	—	63	108	159
London City	29,088	469	555	16.2	19.1	1.17	34	—	8	2	10	2	—	6	1	5	54	126
East Districts.																		
Shoreditch	121,485	4,266	2,707	35.2	22.3	3.95	480	—	108	21	44	98	—	17	—	192	245	196
Bethnal Green	129,027	4,779	2,872	37.1	22.3	3.90	503	—	152	11	62	119	—	17	—	142	279	154
Whitechapel	80,559	3,123	1,622	38.9	20.2	2.10	169	—	45	8	20	24	—	9	—	63	209	144
St. George-in-the-East	48,241	2,083	1,192	43.3	24.8	3.31	159	—	33	6	14	39	—	7	—	60	130	195
Limehouse	58,661	1,912	1,390	32.7	23.8	4.26	249	—	57	5	26	62	—	8	1	90	140	208
Mile End Old Town ...	112,528	4,294	2,229	38.3	19.9	3.51	393	—	93	8	63	74	—	13	—	142	164	153
Poplar	170,220	5,907	3,605	34.8	21.2	3.72	629	—	130	22	89	120	—	30	1	237	311	[illegible]
South Districts.																		
St. Saviour Southwark	24,562	739	577	30.2	23.6	3.09	76	—	17	1	15	14	—	4	—	25	75	[illegible]
St. George Southwark	60,461	2,138	1,470	35.5	24.4	3.99	241	—	43	20	36	34	—	9	—	99	192	[illegible]
Newington	123,183	4,165	2,520	33.9	20.5	3.17	388	—	55	24	72	45	—	10	—	182	298	[illegible]
St. Olave Southwark...	11,288	357	232	31.7	20.6	2.31	26	—	5	1	3	11	—	1	—	5	25	[illegible]
Bermondsey	85,738	3,090	1,771	36.1	20.7	3.02	258	—	59	19	44	47	—	9	—	80	184	[illegible]
Rotherhithe	40,849	1,298	773	31.9	19.0	2.24	91	—	33	10	11	15	—	1	—	21	74	[illegible]
Lambeth	3[illegible]4,073	9,266	5,422	30.6	17.9	2.50	755	—	135	30	114	1[illegible]9	—	35	1	281	506	[illegible]
Battersea	171,921	5,157	2,8[illegible]7	30.0	16.9	2.93	503	—	114	28	120	68	—	14	2	157	257	[illegible]
Wandsworth	2[illegible]2,526	5,186	2,902	25.7	14.4	2.40	484	—	111	16	89	86	—	16	—	166	220	[illegible]
Camberwell	2[illegible]1,189	7,425	4,261	28.5	16.4	2.41	628	—	117	18	87	1[illegible]8	—	26	—	252	398	[illegible]
Greenwich	1[illegible]0,441	5,625	3,336	31.3	18.5	3.08	555	—	108	21	44	112	—	33	—	222	272	[illegible]
Lee...	39,717	891	592	22.5	14.9	1.97	78	—	6	7	14	14	—	7	—	30	46	[illegible]
Lewisham	83,562	2,317	1,350	26.2	15.3	2.50	221	—	35	10	26	32	—	6	—	112	78	[illegible]
Woolwich	41,478	1,253	841	30.3	20.4	4.13	171	—	58	5	19	27	—	8	—	54	86	[illegible]
Plumstead	62,531	1,896	1,016	30.4	16.3	2.85	178	—	58	12	15	33	—	3	—	57	92	[illegible]

average. The single fatal case of small-pox registered in London during 1898 belonged to St. George Hanover Square sanitary area. During last year only 5 cases of small-pox were admitted into the Metropolitan Asylums Hospitals, and no case remained under treatment at the end of the year. Measles showed the highest proportional fatality in Hammersmith, Chelsea, Westminster, Islington, Holborn, Bethnal Green, Limehouse, and Woolwich sanitary areas. Scarlet fever was proportionally most fatal in Fulham, St. Pancras, St. Luke, St. George Southwark, Bermondsey, and Rotherhithe sanitary areas; 12,480 scarlet fever cases were admitted into the Metropolitan Asylum Hospitals during 1898, and 2,883 patients remained under treatment at the end of December last. Diphtheria caused the highest proportional fatality in Hackney, Clerkenwell, St. Luke, Mile End Old Town, St. Saviour Southwark, St. George Southwark, Newington, and Battersea sanitary areas; there were 7,390 diphtheria patients admitted into the Metropolitan Asylum Hospitals during 1898, and 1,239 remained under treatment at the end of December last. Whooping-cough was proportionally most fatal in Westminster, Shoreditch, Bethnal Green, St. George-in-the-East, Limehouse, Poplar, and St. Olave Southwark sanitary areas; enteric fever in St. Pancras, Hackney, Strand, City of London, Greenwich, and Woolwich sanitary areas; and diarrhœa in Fulham, Clerkenwell, St. Luke, Shoreditch, Limehouse, Poplar, St. George Southwark, and Newington sanitary areas.

During the year under notice 7,746 deaths from phthisis were registered in London, equal to an annual rate of 1.72 per 1,000; this disease was much more fatal in Central and in East London than in any other part of the metropolis. In West London the phthisis death-rate was 1.52 per 1,000, in North London it was 1.54, and in South London 1.66; while in East London it was 2.06, and in Central London as high as 2.66 per 1,000. Among the various sanitary areas the the lowest phthisis death-rates were 0.74 in Hampstead, 0.88 in Lewisham, 1.04 in Stoke Newington, 1.13 in Wandsworth, 1.16 in Lee, and 1.26 in Kensington: and the highest rates 2.64 in St. Luke, 2.70 in St. George-in-the-East, 3.06 in St. Saviour Southwark, 3.17 in Holborn, 3.18 in St. George Southwark, 3.32 in Strand, and 3.34 in St. Giles.

Infant mortality in London, measured by the proportion of deaths under 1 year of age to registered births, was equal to 166 per 1,000, and exceeded by 11 per 1,000 the mean rate in the ten preceding years. The lowest rates of infant mortality were 108 in Stoke Newington, 120 in St. George Hanover Square, 125 in Hampstead, 128 in City of London, and 132 in Marylebone and in St. Olave Southwark; while they ranged upwards in the other sanitary areas to 191 in Poplar, 195 in St. George-in-the-East, 196 in Clerkenwell and in Shoreditch, 208 in Limehouse, 211 in St. Saviour Southwark, and 221 in Holborn.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,730 births and 4,718 deaths were registered during the week ending Saturday, last, March 4th. The annual rate of mortality in these towns, which had been 19.5 and 20.6 per 1,000 in the two preceding weeks, further rose to 21.6 last week. The rates in the several towns ranged from 13.1 in Croydon, 13.7 in Cardiff, 14.6 in Leicester, and 14.8 in Burnley, to 25.3 in Preston, 25.4 in Birkenhead, 29.6 in Manchester, and 29.8 in Liverpool. In the thirty-two provincial towns the mean death-rate was 21.2 per 1,000, and was 0.9 below the rate recorded in London, which was 22.1 per per 1,000. The zymotic death-rate in the thirty-three towns averaged 2.0 per 1,000; in London the rate was equal to 2.0 per 1,000, and corresponded with the mean rate in the thirty-two provincial towns, among which the highest zymotic death-rates were 3.5 in Swansea and in Manchester, 3.6 in Birkenhead, and 5.9 in West Ham. Measles caused a death-rate of 1.0 in Derby, 1.2 in Salford, 2.2 in Manchester, and 4.0 in West Ham; scarlet fever of 1.1 in Sunderland; whooping-cough of 1.0 in Plymouth, in Swansea, and in Bolton, 1.1 in Hull and in Sunderland, and 1.8 in Birkenhead; and "fever" of 1.2 in Wolverhampton. The 96 deaths from diphtheria in the thirty-three towns included 48 in London, 7 in West Ham, 7 in Liverpool, 5 in Swansea, 5 in Sheffield, 4 in Blackburn, and 4 in Leeds. No fatal case of small-pox was registered during the week under notice, either in London or in any of the thirty-two large provincial towns; and 2 small-pox patients were under treatment in the Metropolitan Asylums Hospitals on Saturday last, March 4th. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had declined from 2,939 to 2,575 at the end of the nine preceding weeks, was 2,584 on Saturday last, the 4th inst.; 236 new cases were admitted during the week, against 253, 202, and 241 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, March 4th, 940 births and 765 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had declined from 31.2 to 24.1 per 1,000 in the three preceding weeks, rose again to 25.1 last week, and exceeded by 3.5 per 1,000 the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 19.7 in Dundee and 27.8 in Edinburgh to 26.3 in Glasgow and 28.2 in Leith and in Greenock. The zymotic death-rate in these towns averaged 3.2 per 1,000, the highest rates being recorded in Leith and Aberdeen. The 371 deaths registered in Glasgow included 7 from measles, 4 from scarlet fever, 11 from whooping-cough, 4 from "fever," and 8 from diarrhœa. Five fatal cases of measles, 2 of diphtheria, and 7 of whooping-cough were recorded in Edinburgh; and as many as 19 deaths were referred to measles in Aberdeen.

THE MEDICAL OFFICER OF HEALTH OF BRIGHTON.

THE Brighton Town Council at their last meeting decided without dissent, on the unanimous recommendation of the Sanitary Committee, to increase the salary of Dr. Newsholme, medical officer of health, from £800 to £1,000.

FEES FOR ATTENDANCE AT ASSIZES AND FOR CERTIFYING LUNATICS.

INQUIRER.—1. We are advised that our correspondent cannot claim for evidence given at assizes on more than one of his cases. He should be paid a guinea for each day he attends, with something extra for each night he is compelled to be away from home.

2. The legal fee which can be claimed for certifying a case of lunacy as fit for an asylum is whatever the magistrate who acts in the case considers to be suitable. This he has power to order the guardians to pay. We believe one guinea is the amount most frequently ordered to be paid for this duty.

EXTRA FEE FOR FRACTURED THIGH.

LEX writes as follows: An aged pauper fell and fractured her thigh. She was attended by the union medical officer, but died within a fortnight. Is he entitled to the extra fee?

⁂ He is entitled to the extra fee if he held the appointment of district medical officer, but not if he was a workhouse medical officer.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

DEGREES.—At the congregation held on March 2nd, the M.B. degree was conferred on Arthur Graham Butler, B.A., of St. John's; and the M.B. and B.C. degrees on Francis Arthur Godson, B.A., of St. John's, and on Alfred Wilson Daniel, B.A., and Reginald John Willson, B.A., of Emmanuel.

MASTER OF SURGERY.—It is proposed to modify the conditions under which Masters of Arts may proceed to the degree of M.C. At present they are required to have passed the examinations for the B.C. degree before applying for permission to "incept," that is, to proceed to the higher title. In future, if the proposals of the Medical Board are adopted, it will suffice if they have three years previously become legally qualified to practise surgery. A similar provision exists in the case of the LL.M. degree, which is open to barristers and solicitors who have taken the M.A. degree.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE DUNDEE ROYAL ASYLUM.

THE total number of cases under treatment during the year ending June 20th, 1898, was 618. Of these, 242 were men and 376 women, showing an excess of 134 women. So large a proportion of females is unusual. Of the total number, 82 were private patients. The total discharged and died were 188, as against 147 admissions. The recovery rate in this asylum has always been well up to the average, and for the year under consideration stands at 45.58 as calculated upon the number admitted. The death-rate was 8.09 per cent., calculated on the whole number under treatment. In speaking of the causes of death, Dr. Rorie mentions one case in which the cause is given as typhoid fever, and he states that "in this instance the symptoms during life were very obscure, but the lesions revealed on *post-mortem* examination left no doubt as to the cause of death, so that it must have been one of the sporadic examples of this disease which from time to time are met with." This observation emphasises the oft-repeated opinion of the Commissioners in Lunacy upon the advisability of having a *post-mortem* examination upon all cases dying in lunatic asylums. A matter for congratulation is the resumption of lectures and demonstrations in mental diseases at this asylum, in connection with the Dundee University College and St. Andrews University.

WEST-END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM.

THE children's wards of this hospital were recently reopened by the Duchess of Devonshire. After inspecting the wards, which have been painted, tiled, and decorated, the electric light installed, and a new and complete set of electrical appliances added, Her Grace was present at a meeting held in the large out-patient room of the hospital.

The Chairman addressed the meeting, calling attention to the circumstances which had led to this meeting, and called upon the Senior Physician, Dr. T. Outterson Wood, who drew attention to the large increase in the number of patients, and the excellent work being done at the hospital. He advocated a further extension of the building to meet the increased demand for in-patients' accommodation.

HOSPITAL CONVALESCENT HOME, PARKWOOD, SWANLEY, KENT.

SINCE the opening of this Home in June, 1893, the number of patients admitted up to the end of 1898 was 8,868, of whom 5,887 were men and 2,981 women. Of the 1,644 patients admitted in 1898, 424 came from the London Hospital, 418 from St. Thomas's, 296 from Guy's, 260 from Westminster, 240 from St. Mary's, and 6 from Middlesex. The closing of the Home for some weeks in March and April, 1898, for repairs and cleaning necessarily lowered somewhat the number of patients in the year. The average number in the Home daily throughout the past year was 88; the duration of the stay of each patient averaged twenty days. The benefits of the Home were bestowed upon the patients without charge of any kind except the cost of conveyance to and from the Home, that being the only payment made by the hospitals from which patients are received. The net outlay of the Home during 1898 was £5,190 8s. 2d., being an average of £3 3s. 1d. per patient, or £1 2s. 1d. per head per week. The very valuable work effected by this institution is fully appreciated by the staffs of the London hospitals, which have the privilege of sending their convalescent patients to the Home, and its value is enhanced by the fact that surgical cases, inadmissible at the majority of convalescent homes, are received there. Middlesex Hospital, having now its own convalescent home, finds that sufficient for its needs, and has surrendered its privileges at Parkwood in favour of other hospitals with greater necessities; but in doing so the Hospital Board has expressed its deep sense of gratitude for the assistance so beneficially afforded

INDIA AND THE COLONIES.

VICTORIA.

REPORT OF THE BOARD OF HEALTH.

Vaccination and Small-pox.—From the report of the Board of Health of Victoria for the year 1896-7, received recently, we learn that the percentage of successful vaccinations to the number of births after deducting from the latter the number of infants who died under the age of six months was 74.42, a decrease of 7 per cent. on the previous year. No case of small-pox has occurred inland, though several steamers arrived from the East with cases of small-pox on board. This result is attributed to quarantine regulations.

Bacteriological Diagnosis.—An arrangement has been made with the Council of the University of Melbourne whereby for the annual payment of £150 the following services were to be rendered by the Department of Pathology: Bacteriological diagnosis of cases of diphtheria, typhoid, and tubercle; a quarterly report on the Melbourne water supply in reference to the "colon bacilli"; occasional bacteriological examination of any water supply that may fall under suspicion, etc. This will meet the wants of medical practitioners and others who for some time have felt the need of a central institution where microscopical and bacteriological work required in connection with cases of patients in poor circumstances could be performed free of expense. Two samples of Yan Yean water were examined in December, 1897, and April, 1898; in the former colon bacilli were found in large numbers, while in the latter only a very few were found.

Ambulance Service.—There has been some improvement in the means for protection against communicable disease, the Councils of several of the large centres of population having provided a service for the speedy collection and destruction of the discharges of typhoid patients, and two or three of them have provided an ambulance service for cases of infectious disease.

Tuberculosis and the Milk and Meat Supplies.—The Board has also arranged for any dairy farmer to have his herd tested with tuberculin free of expense, on the understanding that any animal showing signs of disease under the test should be slaughtered. The Board have been impressing upon the Government from time to time the urgent necessity for the proper supervision of the milk and meat supplies, and a Bill has been prepared embodying these views, which it is hoped will soon become law.

Leprosy.—Two cases of leprosy were discovered in Melbourne in 1897 and were sent to the quarantine station. Two of the lepers there died and were cremated; the remaining Chinese lepers were sent back to China.

JAMAICA.

REPORT OF THE REGISTRAR-GENERAL.—From the annual report of the Registrar of Jamaica for 1898 we learn that the population for 1897-98 is estimated as 713,384. The marriage rate was 3.7 per 1,000 of the population, and that for the previous year 4.3, showing a decrease in 1897-8 to the extent of 365 marriages. The marriage rate has been steadily decreasing since the year 1893-4, and with this diminution there has been a high and increasing rate of illegitimate births. Over 47 per cent. of persons married during the year were unable to sign their names in the marriage register. The number of births shows an increase of 1,383 over the previous year, the number of illegitimate births reaching the high figure of 62.3 per 100 births. The death-rate was 23 per 1,000, an increase of 939 deaths on the previous year. Of the total deaths, 30.6 per cent. were of children under 1 year, and 44.8 per cent. of children under 5 years of age. This high rate of infant mortality is largely accounted for by the large number of illegitimate births. Over 75 per cent. of the deaths registered were not medically certified, so that the figures giving the number of deaths from different causes can hardly be reliable. The number of deaths stated to be due to old age—namely, 1,398 out of a total of 16,474—seems remarkably large, the figures for different ages being 626 at 75 years, 372 at 85, and 215 at 95 and over. Fevers unspecified were accountable for 2,758 deaths, phthisis 1,168, convulsions 1,584, and various ill-defined and unspecified causes 2,214.

MEDICAL NEWS.

PROFESSOR RAY LANKESTER has been elected a Correspondent of the Academy of Sciences of France.

A CASE of typhus fever originating at 110, Southwark Bridge Road, and admitted into Guy's Hospital, was notified on February 20th.

THE HAMPSTEAD HOSPITAL.—Sir Henry Harben has promised £3,000 for the fund for building a new hospital, provided that £14,000 is raised by June 1st. A further sum of £3,050 has already been promised.

A FRENCH "SPOOKICAL" SOCIETY.—A French analogue of the Society of Psychical Research has recently been established in France under the name of "Société d'Etudes Psychiques." The President is Professor Charles Richet, of Paris. Further information on the subject may be obtained from Dr. Joire, 42, Rue Gambetta, Lille.

ANOTHER MONUMENT TO PASTEUR.—A monument to Pasteur is to be unveiled at Lille on Sunday, April 9th. On the same day the Pasteur Institute of Lille will be formally opened. M. Viger, Minister of Agriculture (who, by the way, is a Doctor of Medicine), and M. Guillain, Minister for the Colonies, will preside at the ceremonies.

MEDICAL STUDENTS IN AMERICAN UNIVERSITIES.—The number of students in the medical department of the six leading Universities in the United States is as follows: Pennsylvania, 793; Columbia, 695; Harvard, 546; Michigan, 408; Johns Hopkins, 201; Yale, 112.

INOCULATION AGAINST ENTERIC AT LUCKNOW.—By invitation of the military authorities, Professor Wright, who is now working on the Plague Commission, paid a flying visit to Lucknow to inoculate the garrison troops against enteric fever, which continues to be very prevalent in the cantonments. The men undergoing the operation included over 300 of the 3rd Hussars, and 120 of the Cameronians, together with several officers. Thus three stations have been visited—Bangalore, Rawal Pindi, and now Lucknow.

A NEW MEDICAL SOCIETY IN PARIS.—A new society has recently been founded in Paris, the title of which, "Société d'Obstétrique, de Gynécologie et de Pædiatrie," sufficiently describes its character and objects. The President is Professor Pinard, the Vice-President, M. Terrier; the General Secretary, M. Varnier; the annual Secretaries, MM. Baudron and Legueu; the Archivist, M. Potocki; the Treasurer, M. Champetier de Ribes. Professors Hergott, of Nancy, and Moussous, of Bordeaux, were elected honorary members at the first meeting.

MEDICAL GRADUATION IN FRANCE.—During the academic year 1897-98 the total number of degrees granted by the seven medical faculties of France was 1,180. Of these 661 were conferred by the Paris Faculty, 167 by that of Lyons, 121 by that of Bordeaux, 96 by that of Montpellier, 56 by that of Toulouse, 51 by that of Lille, and 28 by that of Nancy. In 1896-97 the total number of medical degrees conferred was 1,106; in 1895-96 it was 1,059.

PURE BEER FOR NEW YORK.—A Bill to prevent the drugging of beer has been introduced into the Legislature of the State of New York by the Assembly Public Health Committee. The Bill provides that no fermented liquors known as beer, ale, or porter, in the manufacture of which any ingredient, material, substance, or element other than pure barley, malt, pure hops, or pure extract of hops, pure yeast and pure water are used, or which contain any other ingredient of any kind whatsoever, shall hereafter be manufactured or offered for sale in the State of New York, and no fermented liquor shall be sold or offered for sale which has been manufactured within three months prior to the time when sold or offered for sale. Any person or corporation manufacturing or offering for sale any beer contrary to the above provisions is to be deemed guilty of a misdemeanour, and punishable upon a conviction by a fine of not less than 500 dols. (£100), nor more than 3,000 dols. (£600), and for each additional offence by imprisonment for not less than one month nor more than one year. Any retailer violating the provisions of the Bill relative to the sale of the inhibited beer shall be punishable by a fine of not less than 50 dols. (£10) nor more than 200 dols. (£40), and upon a second conviction shall forfeit his liquor-tax certificate.

SKILLED NURSING IN SOUTH LONDON.—We have nothing but praise for the work of the South London District Nursing Association, the fifteenth annual meeting of which was recently held at 13, Carlton House Terrace, by kind permission of Sir Edwin and Lady Durning-Lawrence. During the epidemic of influenza through which we are still passing many of our readers must have noticed how much more favourably situated for progress and recovery were those families in which skilled nursing was available, and the object of this Association is to bring within the reach of the poorest what would otherwise be one of the luxuries of the rich. Seven nurses and a superintendent constitute the staff of the home at Battersea, from which more than 23,000 visits have been made to the homes of the South London poor; and if more generous public support were given to the Association, these numbers might be largely increased. We trust, with the speakers at the annual meeting—Bishop Barry, Sir W. Broadbent, and Mrs. Garrett Anderson—that this may shortly be the case.

ALCOHOL AND THE FRENCH ARMY.—The growing consumption of alcohol by certain classes in France is causing a certain amount of anxiety to the military authorities, evidenced by a series of posters which have been placed in all the barracks of the garrison of Paris, which clearly expose to the eyes of the soldier the ravages produced by alcohol on the human system. These bills, exhibited in the dormitories, lavatories, and dining rooms, show the internal organs of a person addicted to drink, and those of a sober healthy man. These diagrams are accompanied by a notice which enumerates the effects of alcohol from pathological and moral standpoints.

INTERNATIONAL CONGRESS FOR THE PROTECTION OF INFANTS.—An International Congress on matters relating to the protection of infants is to be held in Buda-Pesth under the patronage of His Imperial and Royal Highness the Archduke Joseph in the second half of September, 1899. It is to last five days. The last meeting of the Congress was held in Florence in 1896. The Medical Section, which is to be presided over by Professor Bokaï Janos, will discuss the following questions:—(1) Hygiene of the infant in the family; (2) assistance for foundlings and for children morally deserted or poor; (3) the care of children suffering from disease or having some bodily defect; (4) playgrounds and places of recreation; (5) hygiene in schools; (6) hygiene of persons under age in various industries or forms of labour; (7) alcoholism. In addition to the medical there will be legal, pædagogic, charitable, and philanthropic sections.

THE NEW YORK POST-GRADUATE MEDICAL SCHOOL.—The sixteenth anniversary of the New York Post-graduate Medical School and Hospital was celebrated on January 5th, among the speakers being Dr. St. John Roosa, Dr. George N. Miller, and Professor A. M. Phelps. Dr. Phelps stated that since the founding of the School in 1882 over 6,000 medical men had passed through it. Last year the number of entries was 523; this year it was expected that they would exceed 600. From a single room in 1882 the institution had grown till now it had a magnificent building with 175 medical and surgical wards; a lying-in department; dispensaries where there were treated over 20,000 patients a year; babies' wards said to be more perfectly equipped than any other babies' wards in the world; an orthopædic ward in which 1,000 crippled children were treated in the course of the year; machine shops, where braces, etc., for deformed children were made; besides laboratories and various departments for scientific study.

THE ROENTGEN RAYS IN SPAIN.—A laboratory for the application of the Roentgen rays was opened in Madrid under the name of Instituto Radiografico de España on February 20th. The institute, the installation and equipment of which are on a magnificent scale, is said to have cost some two million pesetas (£80,000). We gather from the *Siglo Medico* that the impression produced by the size of the place, the luxurious manner in which it is fitted up, and the wealth of apparatus which it contains, on the large assembly of medical men and journalists who were present at the opening, was one akin to stupefaction. The Director of the Institute is Dr. Mezquita. In view of the statements that have appeared as to the grave financial position of Spain, one can hardly help wondering where the large sum of money mentioned above was obtained; but however it may have been got, it must be admitted that it has been applied for a useful purpose. If money on a proportionate scale is forthcoming for medical institutions generally, Spain, even if she dies politically, according to Lord Salisbury's cheerful prognosis, has a vigorous scientific life before her.

MEDICAL VACANCIES.

The following vacancies are announced:—

BIRKENHEAD: BOROUGH HOSPITAL.—Junior House-Surgeon. Salary, £80 per annum, with board and lodging. Further sum of £20 to £25 per annum is usually obtained in fees. Applications to the Chairman of the Weekly Board by March 21st.

BIRMINGHAM: GENERAL HOSPITAL.—Two Assistant House-Physicians. Appointments for six months. Residence, board, and lodging provided. Applications to the House Governor by April 1st.

BLACKBURN AND EAST LANCASHIRE INFIRMARY.—Junior House-Surgeon. Salary to commence £50 per annum, with board, lodging, washing, etc. Applications to the Secretary, 15, Richmond Terrace, Blackburn, by March 25th.

BRISTOL CITY HOSPITALS.—Resident Medical Officer at the Ham Green Fever Hospital. Salary, £100 per annum, with board, lodging, and washing. Applications to Dr. D. S. Davies, Public Health Offices, 40, Prince Street, Bristol, by March 18th.

HARING CROSS HOSPITAL, W.C.—Assistant-Physician. Applications to the Secretary by March 21st.

CHARING CROSS HOSPITAL.—Assistant Anæsthetist. Applications to the Superintendent by March 15th.

CHESTER GENERAL INFIRMARY.—Visiting Surgeon. Salary, £80 per annum, with residence and maintenance. Applications to the Chairman of the Board of Management, 29, Eastgate Row North, by March 23rd.

CHORLTON-UPON-MEDLOCK DISPENSARY, Manchester.—Resident House-Surgeon; unmarried. Salary, £100 per annum, with furnished rooms and attendance. Applications to the Secretary by March 29th.

CITY OF LONDON UNION INFIRMARY.—Dispenser at the Infirmary, Bow Road, E., between 25 and 40 years of age. Salary, £100 per annum, with dinner and tea daily. Applications, on forms provided, to be sent to the Clerk to the Guardians, 61, Bartholomew Close, E.C., by March 18th.

COVENTRY AND WARWICKSHIRE HOSPITAL, Coventry.—Assistant House-Surgeon. Appointment for six months, subject to re-election. Salary at the rate of £50 per annum, with rooms, board, washing, and attendance. Applications to the Secretary by March 11th.

CUMBERLAND INFIRMARY, Carlisle.—Assistant House-Surgeon. Salary, £40 per annum, with board, lodging, and washing. Applications to the Secretary by March 20th.

CUMBERLAND AND WESTMORLAND ASYLUM, Garlands, Carlisle.—Junior Assistant Medical Officer; unmarried, and not more than 26 years of age. Salary, £100 per annum, with board and residence. Applications to the Medical Superintendent.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Assistant Anæsthetist. Applications to the Secretary by March 20th.

DENTAL HOSPITAL OF LONDON MEDICAL SCHOOL, Leicester Square.—Demonstrator in Dental Histology. Honorarium of £25 a year. Applications to the Dean by March 21st.

DINORWIC QUARRIES HOSPITAL, Llanberis.—Assistant Surgeon. Salary, £150 per annum, outdoor, and one half midwifery fees attended by him. Applications to R. H. Mills-Roberts, Dinorwic Quarries Hospital, Llanberis.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—House-Surgeon. Board and residence provided, and honorarium of £25 on completion of six months' approved service. Applications to the Secretary by March 18th.

EDINBURGH UNIVERSITY.—Professor of Physiology. Applications to R. Herbert Johnston, W.S., Secretary, 66, Frederick Street, Edinburgh, by May 20th.

ESSEX COUNTY ASYLUM, Brentwood.—Junior Assistant Medical Officer; unmarried, and not over 26 years of age. Salary, £120 per annum, with board, residence, and washing. Applications to the Medical Superintendent by March 14th.

GLASGOW UNIVERSITY.—Professor of Pathology. Salary, £1,100. Applications to Alan E. Clapperton, Secretary of the Glasgow University Court, 91, West Regent Street, Glasgow, by March 24th.

GREAT NORTHERN HOSPITAL.—Surgeon to In-patients; must be F.R.C.S. Junior House-Surgeon. Appointment for six months. Salary at the rate of £30 per annum, with board, lodging, and washing. Also Assistant Anæsthetist. Appointment for six months, but eligible for re-election. Honorarium at the rate of 10 guineas per annum. Applications to the Secretary for the first by March 15th and for the latter two by March 20th.

GROVE HALL ASYLUM, Bow, E.—Junior Assistant Medical Officer. Salary at the rate of £120 per annum, with board, lodging, and washing. Applications to the Medical Superintendent.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Assistant Physician and Resident House-Physicians. Applications to the Secretary, for the former by March 22nd, and for the latter by March 29th.

KING'S COLLEGE, London.—Sambrook Surgical Registrar and Assistant Ophthalmic Surgeon at King's College Hospital. Applications to the Secretary for the former by March 13th.

LEICESTER INFIRMARY.—Assistant House-Surgeon. Honorarium £42 for twelve months, with board, residence, and washing. Applications to the Secretary, 24, Friar Lane, Leicester, by March 20th.

LIVERPOOL NORTHERN HOSPITAL.—Resident House-Surgeon's Assistant. Appointment for six months, subject to re-election. No salary. Board and lodging provided. Applications to the Chairman by November 24th.

LONDON HOSPITAL, Whitechapel, E.—Surgical Registrar. Salary, £100 per annum. Applications to the House-Governor by March 16th.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Assistant Resident Medical Officer. Appointment for six months. Residence, board, and washing provided, and honorarium of 5 guineas. Applications to the Secretary by March 16th.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—House-Physician, House-Surgeon, Assistant House-Physician, and Assistant House-Surgeon. Appointments for six months. The two former will receive salary at the rate of £40 per annum, and the two latter at the rate of £20 per annum. Applications to the Secretery by March 13th.

MONMOUTHSHIRE ASYLUM.—Third Assistant Medical Officer: under 30 years of age. Salary, £100 per annum, increasing to £150, with board, lodging, and washing. Applications to the Medical Superintendent, Abergavenny, by March 23rd.

NORTH ORMESBY, MIDDLESBROUGH: THE HOSPITAL.—House-Surgeon. Non-resident; unmarried. Salary, £200 per annum. Applications to the Secretary by March 21st.

ROYAL COLLEGE OF PHYSICIANS OF LONDON AND ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Director of Conjoint Laboratories. Applications to the Secretary, Examination Hall, Victoria Embankment, W.C., by March 15th.

ST. JOHN'S WOOD AND PORTLAND TOWN PROVIDENT DISPENSARY, N.W.—Third Medical Officer. Applications to the Secretary, 1, Henstridge Villas, St. John's Wood, by March 24th.

ST. MARY'S HOSPITAL, Paddington, W.—Surgeon for Diseases of the Ear.. Applications to the Secretary by March 17th.

SEAMEN'S HOSPITAL SOCIETY (DREADNOUGHT), S.E.—House-Surgeon for the Branch Hospital, Royal Victoria and Albert Docks. Salary, £50 per annum, with board and residence. Applications to the Secretary by March 20th.

SHEFFIELD ROYAL INFIRMARY.—Junior Assistant House-Surgeon. Salary, £50 per annum, with board, lodging, and washing. Applications to the Medical Staff of the Royal Infirmary, Sheffield, care of the Secretary, by March 22nd.

SOUTHAMPTON: ROYAL SOUTH HANTS INFIRMARY.—Assistant House-Surgeon. Appointment for six months. Gratuity £10. Applications to the Secretary by March 23rd.

STAFFORDSHIRE COUNTY ASYLUM, Stafford.—Junior Assistant Medical Officer, unmarried and under 30 years of age. Salary, £100 per annum, rising to £150, with furnished apartments, board, etc. Applications to the Medical Superintendent.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—Assistant House-Surgeon. Salary, £80 per annum, with board, lodging, and washing. Applications to the House-Surgeon by March 15th.

STOCKPORT INFIRMARY.—Assistant House-Surgeon and Visiting Surgeon. Salary, £70 per annum, with board, washing, and residence. Applications to the Secretary by March 14th.

SWANSEA GENERAL AND EYE HOSPITAL.—House-Physician. Salary, £50 per annum, with board, apartments, washing, and attendance. Applications to the Secretary by March 21st.

TOTTENHAM HOSPITAL.—Resident Medical Officer. Salary, £60 per annum, with board, lodging, and washing. Applications to the Honorary Secretary.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician and House-Surgeon. Appointments for six months. Applications to the Secretary-Superintendent by March 22nd.

MEDICAL APPOINTMENTS.

BROWN, R., M.B., appointed Medical Officer of Health to the Blaydon Urban District Council.

HANLY, John Joseph, M.A.R.U.I., L.R.C.P., L.R.C.S., L.M.Edin., appointed Medical Officer and Public Vaccinator for the No. 2 Sanitary District of the Shepton Mallet Union, *vice* L. Powell, M.R.C.S.Eng., L.R.C.P.Edin., resigned.

Hoffman, Arthur, M.D., appointed Medical Officer of Health to the Knighton Rural District Council, *vice* R. F. Cox, resigned.

Jones, F. F., M.R.C.S.Eng., L.S.A., appointed Medical Officer for the No. 2 District of the Bath Union, *vice* H. C. Hopkins, M.R.C.S.Eng., L.R.C.P.Edin., resigned.

Kempe, G., M.D., B.S., appointed Surgeon to the Salisbury Infirmary, *vice* J. Kelland, M.B., C.M.Edin., resigned.

Kerr, J. L., M.D., appointed Medical Officer for the Biddenden District of the Tenterden Union.

Mackenzie, Ernest, M.D.Glasg., appointed Medical Officer of the Workhouse and Cheadle District of the Cheadle Union.

Miller, Victor, M.B., C.M.Edin., appointed Ophthalmic Surgeon to the North Ormsby Hospital, Middlesbrough-on-Tees.

Nott, Captain A. H., M.B., M.R.C.S., I.M.S., appointed Clinical Assistant to the Chelsea Hospital for Women.

Thurnell, Herbert Leslie, M.A.Cantab., M.R.C.S., L.R.C.P., L.S.A., appointed Public Vaccinator for the whole District of Gravesend and Milton.

Williams, F. E., B.A.Camb., M.R.C.S., L.R.C.P., appointed Medical Officer for the Sixth District of the St. Neots Union.

Williams, W. R., L.R.C.P., L.R.C.S.E., appointed Surgeon to the Bryneglwys Slate Quarries, *vice* A. O. Davies, resigned.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 8.30 P.M.—Mr. John Langton: Radical Operation for Inguinal Hernia—and afterwards.

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Mr. G. L. Cheatle: The Treatment of Wounds and their Complications. (Lecture I).

Royal College of Surgeons, 5 P.M.—Professor C. Stewart: On Alteration of Generation and Recent Additions to the Museum. (Lecture I.)

TUESDAY.

Royal College of Physicians of London, 5 P.M.—Dr. G. R. Murray: On the Pathology of the Thyroid Gland. (Goulstonian Lecture III.)

National Hospital for the Paralysed and Epileptic, Queen Square, W.C., 3.30 P.M.—Dr. Taylor: Syphilitic Diseases of the Nervous System.

West End Hospital for Diseases of the Nervous System, 73, Welbeck Street, W., 4 P.M.—Mr. H. Work Dodd: Cases of Visual Disorder in Relation to Diseases of the Nervous System.

Royal Medical and Chirurgical Society, 8.30 P.M.—Dr. T. R. Bradshaw and Dr. W. B. Warrington: On the Morbid Anatomy and Pathology of Dr. Bradshaw's Case of Myelopathic Albumosuria. Mr. G. H. Makins: On Prevesical Hernia, with the Relation of a Case in which Subacute Strangulation occurred.

WEDNESDAY.

Royal College of Surgeons, 5 P.M.—Professor C. Stewart: On Alteration of Generation and Recent Additions to the Museum. (Lecture II.)

Hospital for Consumption and Diseases of the Chest, Brompton, 4 P.M.—Dr. Biss: On Chronic Pneumonia.

Evelina Hospital, S.E., 4.30 P.M.—Mr. Sydney Carpenter: Clinical Demonstration on Ophthalmic Cases.

Royal Microscopical Society, 20, Hanover Square, W., 8 P.M.

Royal Meteorological Society, 25, Great George Street, Westminster, S.W., 7.30 P.M.

North-West London Clinical Society, North-West London Hospital, Kentish Town Road, 8.30 P.M.—Annual General Meeting: Election of Officers: Demonstration of Cases.

THURSDAY.

Royal College of Physicians of London, 5 P.M.—Dr. Samuel Gee: On the Causes and Forms of Bronchitis. (Lumleian Lecture I.)

Hospital for Sick Children, Great Ormond Street, W.C., 4 P.M.—Dr. Still: Demonstration of Selected Cases.

Charing Cross Hospital, Post-Graduate Course, 4 P.M.—Dr. William Hunter: Pathological Demonstration.

Harveian Society of London, 8.30 P.M.—Dr. Mouillot: Modern Views on Gout in Relation to Treatment.

West London Post-Graduate Course, West London Hospital, W., 5 P.M.—Mr. G. L. Cheatle: The Treatment of Wounds and their Complications. (Lecture II.)

St. John's Hospital for Diseases of the Skin, 49, Leicester Square, 4.30 P.M.—Dr. Dockrell: Cases of Purpura and other Hæmorrhagic Affections.

London Temperance Hospital, 2 P.M.—Dr. Soltau Fenwick: Clinical and Pathological Demonstration to Senior Students.

FRIDAY.

Royal College of Surgeons, 5 P.M.—Professor C. Stewart: On Alteration of Generation and Recent Additions to the Museum. (Lecture III.)

Epidemiological Society of London, 11, Chandos Street, Cavendish Square, W., 8.30 P.M.—Dr. W. H. Crosse: On Blackwater or Hæmoglobinuric Fever.

Society of Anæsthetists, 20, Hanover Square, W., 8.30 P.M.—Papers by Mr. H. Bellamy Gardner. Mr. A. Granville, and casual communications.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to insure insertion in the current issue.

BIRTHS.

Angus.—On March 2nd, at Bingley, Yorkshire, the wife of Henry Angus, M.D., of a son.

Bates.—On March 5th, at Lingfield Road, Wimbledon, the wife of J. Edwin Bates, M.B., of a son.

Fuller.—On March 4th, at 7, Oxford Row, Bath, the wife of A. Leonard Fuller, M.R.C.S.Eng., L.R.C.P.Lond., of a son.

Lewis-Hughes.—On March 5th, at Gwernllwys Home, Dowlais, Glam., the wife of H. Lewis-Hughes, L.R.C.P.Edin., L.R.C.S.Edin., of a son.

Shaw-Mackenzie.—On March 4th, at 31, Grosvenor Street, W., the wife of John A. Shaw-Mackenzie, M.D.Lond., of a son and daughter.

Tabor.—On March 2nd, at 5, Pulteney Street, Bath, the wife of Charles J. Tabor, M.B., M.R.C.S., L.R.C.P., of a son.

MARRIAGES.

Morton—Macpherson.—On February 28th, at Christ Church, Bayswater, by the Rev. C. Ridgeway, William Britain Morton, M.D.Lond., of Brislington, eldest son of William Morton, Esq., of Gayles, Yorks., to Louisa Elizabeth, daughter of the late Hon. John A. Macpherson of Melbourne.

Arsons—Hunter.—On February 20th, at Christ Church, Claughton, by the Rev. Canon Robson, Christopher Thackeray Parsons, M.D.Lond., of Hayle, Cornwall, to Amy second daughter of James Hunter of Liverpool.

DEATH.

Rodgers.—February 21st, at Ross, suddenly, Marshall Prime Rodgers, L.R.C.P., L.R.C.S., youngest son of the late J. M. P. Rodgers of Queniboro Lodge, Leicester. Deeply regretted. Interred at Ross, February 25th.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

Cancer, Brompton (Free). *Attendances.*—Daily, 2. *Operations.*—Tu. W. F., 2.

Central London Ophthalmic. *Attendances.*—Daily, 1. *Operations.*—Daily.

Central London Throat, Nose, and Ear. *Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—I.p., Tu., 2.30; o.p., F., 2.

Charing Cross. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.45; Dental, M., 9; Throat and Ear, F., 9.30. *Operations.*—Th. F. S., 3.

Chelsea Hospital for Women. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

City Orthopædic. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.

East London Hospital for Children. *Operations.*—M. W. Th. F., 2.

Great Northern Central. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F., 2.30; Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

Guy's. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 2. *Operations.*—Tu. F., 1.30; (Ophthalmic), M., 1.30; Th., 2.

Hospital for Women, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

King's College. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, daily, 2; o.p., daily, 1.30; Eye, M. W. Th., 1.30; Ear, Th., 2.30; Throat, M., 1.30; F., 2; Dental, M. Tu., 10; Skin, W., 1.30. *Operations.*—W. Th. F., 2.

London. *Attendances.*—Medical, daily, i.p., 2; o.p., 1.30; Surgical, daily, 1.30 and 2; Obstetric, M. Tu. Th. F., 2; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, W., 9; Skin, Th., 9; Dental, Tu., 9. *Operations.*—Daily, 2.

London Temperance. *Attendances.*—Medical, M. Tu. W. Th. F., 1.30; Surgical, M. Th., 1.30. *Operations.*—M. Th., 4.30.

London Throat, Great Portland Street. *Attendances.*—Daily, 2; Tu. F., 6. *Operations.*—Daily, 2.

Metropolitan. *Attendances.*—Medical and Surgical, daily, 2; S., 9; Obstetric, W., 2; Eye, W., 2; Throat and Ear, Th., 2; Dental, Tu. Th. S., 9. *Operations.*—Tu. W., 2.30; Th., 4.

Middlesex. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., 1.30; o.p., M., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu. F., 9; Skin, Tu., 4; Th., 9.30; Dental, M. F., 9.30; W., 9. *Operations.*—Daily, 1.30.

National Orthopædic. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

New Hospital for Women. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30. *Operations.*—Tu. F., 9.

North-West London. *Attendances.*—Medical, daily, exc. S., 2; S., 10; Surgical, daily, exc. W., 2; W., 10; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

Royal Ear, Frith Street. *Attendances.*—M. W. F., 3; Tu. F., 9.30 and 7.30. *Operations.*—Tu., 3.

Royal Eye, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

Royal Free. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, W., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

Royal London Ophthalmic. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

Royal Orthopædic. *Attendances.*—Daily, 2. *Operations.*—M., 2.

Royal Westminster Ophthalmic. *Attendances.*—Daily, 1. *Operations.*—Daily, 2.

St. Bartholomew's. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. W. F., 2; o.p., W. S., 9; Eye, M. Tu. W. Th. S., 2; o.p., M. Th., 9; W. S., 2.30; Ear, Tu. F., 2; Skin, Tu., 9; Larynx, Tu. F., 2.30; Orthopædic, M., 3.30; Dental, Tu. F., 9. Electrical, M. Tu. Th. F., 1.30. *Operations.*—Daily, 1.30; (Ophthalmic), Tu. F., 2; Abdominal Section for Ovariotomy, F., 2.

St. George's. *Attendances.*—Medical and Surgical, daily; i.p., 1; o.p., 12; Obstetric, i.p., Tu. F., 1.45; o.p., M. Tu., 2.30; Eye, W. S., 1.30; Ear, Tu., 2; Skin, W., 2.45; Throat, F., 2; Orthopædic, F., 12; Dental, M. Tu. F., S., 12. *Operations.*—Daily, 1; Ophthalmic, M., 1; Dental, Th., 9.

St. Mark's. *Attendances.*—Fistula and Diseases of the Rectum, males, S., 2; females, W., 9.30. *Operations.*—M., 9; Tu., 2.30.

St. Mary's. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 12.45; Obstetric, Tu. F., 1.45; o.p., M. Th., 1; Eye, Tu. F., 9; Ear, M. Th., 9; Throat, Tu. F., 3; Skin, M. Th., 9; Dental, W. S., 9; Electro-Therapeutics, M. Th., 2.30; Children's Medical, Tu. F., 9. *Operations.*—M., 2.30; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

St. Peter's. *Attendances.*—M., 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

St. Thomas's. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F., 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Th., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Tu., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. F., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Tu., 2.

Samaritan Free for Women and Children. *Attendances.*—Daily, 1.30. *Operations.*—Gynæcological, M., 2; W., 2.30.

Throat, Golden Square. *Attendances.*—Daily, 1.30; Tu. F., 6.30. *Operations.*—Daily, exc. M., 10.

University College. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. F., 1.30; Eye, M. W., 1.30; Ear, M. Th., 9; Skin, Tu. F., 2; Throat, M. Th., 9; Dental, Tu. F., 9.30. *Operations.*—Tu. W. Th., 2.

West London. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th., 2; Ear, Tu., 2; S., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, M. Th., 2; Skin, M. F., 2; Throat and Nose, Tu., 2; S., 10. *Operations.*—Daily, about 2.30; F., 10.

Westminster. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, Tu. F., 9.30; Ear, Tu., 1.30; Skin, W., 1.30; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications for the Current Week's Journal should reach the Office not later than Midday on Wednesday. Telegrams can be Received on Thursday Morning.

Communications respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the Journal, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and **LETTERS** *forwarded for publication are understood to be offered to the* British Medical Journal *alone, unless the contrary be stated.*

Authors desiring reprints of their articles published in the British Medical Journal are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

Correspondents who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

Correspondents not answered are requested to look at the Notices to Correspondents of the following week.

Manuscripts forwarded to the Office of this Journal cannot under any Circumstances be Returned.

In order to avoid delay, it is particularly requested that ALL letters on the editorial business of the Journal be addressed to the Editor at the Office of the Journal, and not at his private house.

Telegraphic Address.—The telegraphic address of the EDITOR of the British Medical Journal is *Aitiology, London.* The telegraphic address of the MANAGER of the British Medical Journal is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are directed will be found under their respective headings.*

QUERIES.

S. I. P. A. would be glad if some member (qualified before 1890) who has recently obtained the D.P.H.Camb. or Royal Colleges will say how much bacteriology is required; also, what book should be read.

M.B. asks for suggestions in the treatment of the following case: A gentleman with lachrymal obstruction has had the canal dilated (the canaliculus being slit up). The lachrymal secretion still refuses to pass through the dilated canal.

VRILYA (Edinburgh) asks to be recommended textbooks to read on surgery and surgical applied anatomy for the Final Examination of the Conjoint Board in London for M.R.C.S., L.R.C.P.

*** Any of the ordinary textbooks of surgery will answer the purpose of our correspondent. The works of Erichsen, of Walsham and of Rose and Carless are perhaps the books most used by the London medical students at the present time. The surgical anatomy may be read in the books by Sheild or McLachlan, but special stress is laid on the ability of the student to apply bandages, and to mark out the chief anatomical structures upon a living subject. Evidence has also to be produced that the candidate has personally performed surgical operations upon the dead body, and for this course Waring's *Manual of Operative Surgery* is recommended.

SEA AIR FOR ECZEMA.

P. P. asks for opinions as to the least irritating sea air for a case of eczema (gouty or syphilitic?) in a patient living in a high and dry part of East Anglia. Is the air of the sea really so injurious to these cases as one is taught to believe? Buxton and Harrogate seem to make this case worse.

HOSPITAL FLOORS.

INFIRMARY would be glad to learn the results of experience of linoleum for covering the wooden floors of hospital wards after the floor has become worn and rough. 1. Is linoleum suitable from a sanitary point of view? 2. Does it allow dust to accumulate and lodge underneath? 3. Do the bedsteads wear it out soon?

TUBERCULOUS CYSTITIS.

F. B. asks for advice as to treatment of the following case:—A deceased surgeon diagnosed as tuberculosis by aid of the microscope a case of cystitis of eight years' standing in a female. He made an opening above the pubes, cauterised the bladder, and drained it. The opening has refused to heal in spite of three further operations and injections of tuberculin. It is now three years since the operation. A catheter has been tied in repeatedly, and the wound will heal at times, but always breaks down again.

A LARGE CHILD.

MR. J. WRIGHT-GRANT, M.B. (Woburn Sands), writes: A few days ago my colleague and I delivered a lady of her first child, which at birth scaled 13 lbs all but an ounce. Forceps failed to effect its delivery. It was only by turning (the mother being well under chloroform all the time) that we were able to get this huge child away. I should like to know if this is an unusual weight for a newly-born infant.

*** The weight is no doubt unusual, but cases are on record in which it has been much exceeded. Thus in Dr. Luff's *Textbook of Forensic Medicine and Toxicology*, vol. ii, page 192, we read: "The following are two instances in which the length and weight of children born at full term have considerably exceeded the average. Davies records a case in which a child was born alive weighing 19 lbs. 2 ozs. Ortega delivered a woman of a stillborn child which measured 27 ins. in length and weighed 24½ lbs.

INFLUENZA AND TYPHOID FEVER.

DR. WILLIAM DOBIE (Keighley) writes: I should like to ask if any of your readers have observed cases the result of combined typhoid and influenzal poisons. Two cases have recently come under my notice that have suggested this idea. The onset was distinctly influenzal, that is, sudden seizure with headache, backache, rapid prostration, and other recognised symptoms of influenza. In the first case there was nothing to point to typhoid until the second week, when a few rose-coloured spots appeared, accompanied by diarrhœa and characteristic stools. Fortunately in this case the typhoid aborted. There were no serious chest symptoms. In the second case there was the same sudden seizure and symptoms of influenza, followed by broncho-pneumonia, but it was not possible until well into the third week to diagnose typhoid, that is, there were no spots and in place of diarrhœa, for a week obstinate constipation and no distension of abdomen, nor did the tongue at all suggest typhoid.

ANSWERS.

RECENT MEMBER.—We do not see why our correspondent should have any hesitation in accepting the assurance given.

PRACTITIONER.—The best way of removing permanently a great number of superfluous hairs from the chin is by electrolysis.

MEMBER B. M. A.—The circular is not in the best taste, but if it is only to the patients of the firm we do not feel justified in expressing any more definite opinion.

J.B.—Such misunderstandings between neighbouring practitioners are much to be regretted. The right of a patient to select his own medical attendant cannot be disputed.

W. B. D.—There is no home for such a case except at rates of 2 or 3 guineas a week, and therefore probably beyond the means of the patient in question. The alternative would be "voluntary boarding" in a lunatic hospital.

DIAGNOSIS.—The opinion expressed as regards the varicocele is probably quite correct. The question of potency is one about which an opinion should be formed only after careful consideration of all the circumstances of the particular case.

E. J. C.—It is so desirable to encourage self-help in all forms that medical practitioners are justified in accepting terms for making the necessary examination for small policies for assurance, which it must be recognised are not any adequate remuneration for the services rendered.

B. W.—We know of no book on the use of oxygen in pneumonia, but our correspondent will find various references in recent volumes of the BRITISH MEDICAL JOURNAL. As to the mode of administration we may refer him to Mr. George Stoker's letter in the JOURNAL of March 4th, page 559, and to the letter at page 635.

N. H. E. S.—We may refer our correspondent to a paragraph which appeared, under the heading of The British Medical Association and the Colonial Office, in the BRITISH MEDICAL JOURNAL of January 21st, p. 166, for an expression of our views upon the main point at issue. With regard to liabilities under the existing law, we are not in a position to express any opinion. The matter should be referred to a lawyer practising on the spot.

INQUIRER.—It is the duty of any practitioner, whether a newcomer or not, to ascertain whether the intended change has been communicated to the previous medical attendant. This should certainly be done by the patient as a matter of common courtesy. The neglect to do so is a frequent source of friction between members of the medical profession; such friction can be avoided only by the establishment of a good and friendly understanding among those who practise in the same neighbourhood.

"SPHINX" sends us a card of a sick and dividing club which has a rule permitting the committee at their discretion to allow a member to obtain the services of a bonesetter and to pay for the same out of the club funds. If the club wished occasionally to consult an astrologer or a professor of palmistry we presume it would be perfectly at liberty to do so. It is lamentable that the public should be so ignorant and the law so weak. Still it seems plain that no bonesetter is an officer of the club.

R. M. H.—Two guineas would, we think, be ample for our correspondent to charge for the services rendered. He made a mistake, in our opinion, in remaining to see the body conveyed to the mortuary after he had made the necessary examination. Subordinate officials, both railway and police, are ready enough to ask for services to be rendered without much thought as to how they are to be paid for, but a longer experience of both will teach our correspondent to take their suggestions for what they are worth.

BOOKS ON HEREDITY.

C. F.—Our correspondent might consult *Hereditary Genius, an Inquiry into its Laws and Consequences*, by Francis Galton (London: Macmillan and Co. 1892. 7s.); Weismann's *Essays upon Heredity and Kindred Biological Problems*, authorised translation by E. B. Poulton, F.R.S., 2nd edition (Oxford: Clarendon Press. 1891-2. Vol. i, 7s. 6d. Vol. ii, 5s.).

THE RISK OF HYDROPHOBIA AFTER TREATMENT.

A. J. A.—We are advised that if the patient has been discharged from the Pasteur Institute, and has developed no symptoms of any kind up to date, not only is there little fear of his communicating hydrophobia through his saliva to anyone else, but practically his mind may also be set at rest about his own case. Experience goes to show that the patient is now out of danger.

THE CLIMATE OF BRITISH NORTH BORNEO.

A. Z. O.—The climate of British North Borneo compares very favourably with that of some neighbouring countries. It is equable, and is not liable to the trying changes that occur in places further removed from the equator. There is a considerable British settlement in Borneo, and life there is by no means uninviting. A good description of Borneo is to be found in *Her Majesty's Colonies* (Wm. Clowes and Sons, 13, Charing Cross, London, W.C.), pp. 462-468.

PREGNANCY IN CASES OF UTERINE MYOMA.

COUNTRY DOCTOR.—Fibroids occupying the lower part of the uterine body may form very serious obstacles to delivery, owing to the impossibility of securing proper dilatation of the cervix. The chances of inducing premature labour with a successful result as regards the child are probably small. The best method to employ, however, if this course be decided upon, is the use of Champetier de Ribes's bag. Directions for the use of this appliance were given by Dr. Herman and Dr. Herbert Spencer in the BRITISH MEDICAL JOURNAL of January 7th, 1893, p. 5, where also will be found a discussion on the subject. Recent editions of all textbooks of obstetrics describe these bags. The child will have the best chance of surviving if an incubator be used; a convenient one is that supplied by Hearson of Regent Street. Directions bearing on the dieting and general hygiene of premature infants will be found in Ashby's *Health in the Nursery*.

EDUCATION OF DEAF-MUTES.

MR. K. LUNN (London, N.) writes: In reply to "Stapes," may I suggest that the boy be sent to the Normal School (at 11, Fitzroy Square) for the Deaf? This school is non-residential, but the pupils are boarded out in private families, under the supervision of a boarding-out committee—this plan being considered far preferable to that of boarding a number of deaf children together. The fees, both for tuition and residence, depend on the means of the parents. All particulars may be obtained from the Director, at 11, Fitzroy Square, London, W.

BOOKS ON FIRST AID.

F. H. G.—The number of books published as guides to lectures on first aid is legion. The following are well known: Shepherd's *First Aid to the Injured*, published by the St. John Ambulance Association (their textbook); *First Aid to the Injured*, by Dr. H. W. Gell, published by Allman for the National Health Society, price 2s.; *First Aid to the Injured*, by Dr. E. J. Lawless (Pentland, Edinburgh and London).

CHILBLAINS.

L. M. D. writes: As a severe sufferer from unbroken chilblains, erythema pernio, allow me to note that I have for years found the liniment suggested in *The Young Practitioner*, page 257 (London: Mr. H. K. Lewis), to be a very effective application and to afford more or less immediate relief.

The prescription referred to by our correspondent is as follows: ℞ aconitiæ, gr. ss; atropiæ, gr. ss; spiritûs rectificati, ʒj; morphiæ hydrochloratis, gr. ij: linimenti potassii iodidi cum sapone, ℥ij; olei amygdalæ amaræ, ♏iij. Tere bene simul. Fiat linimentum cujus paululum (℈i—ʒss) parti affectæ infricetur, nocte maneque.

NOTES, LETTERS, Etc.

THE CLINICAL RESEARCH ASSOCIATION.

DR. J. W. WASHBOURN (Cavendish Place) writes: As I am constantly receiving letters with reference to specimens sent to the Clinical Research Association for examination, I should like to point out that I have never been on the staff of this body, and indeed am not even a subscriber. By allowing this statement to appear in the columns of the BRITISH MEDICAL JOURNAL you will save me considerable trouble in replying to letters about matters in which I am in no way concerned

THE NATIONAL DRINK BILL.

IN the columns of the *Times*, Dr. Burns, who, since the death of Mr. Wm. Hoyle in 1886, has annually presented in a letter to our contemporary an account of the drink bill for the preceding twelve months, has set out the expenditure on alcoholic intoxicants during 1898. The total amount was £154,480,934. As the population was officially estimated at 40,188,927, this was equivalent to an expenditure of £3 16s. 10¾d. for each individual. It is encouraging, in the interests of the general sobriety to note that, though this was a total annual alcoholic disbursement of £7,192,175 more than in 1876, the increased population of 1898 showed an average alcoholic cost for each person of 12s. 1½d. less, the average in 1876 having been £4 9s., as against £3 16s. 10¾d. during last year.

The expenditure on alcoholic beverages varied somewhat in the three great divisions of the United Kingdom. In England last year the average cost per head was £4 2s. 2½d.; in Scotland £3 1s. 1¾d.; and in Ireland £2 14s. 10¼d. There was an increase over 1897 of £2,087,642 in England, and of £115,60: in Ireland; while in Scotland there was a decrease of £4,032.

IDIOSYNCRASY IN REGARD TO EGGS.

W. R. writes: I shall feel obliged if any of your readers will kindly say if they have met with any case similar to the following which has recently come under my observation. A young lady, otherwise perfectly healthy, has symptoms of acute poisoning on any occasion on which she takes egg in any form and in the minutest quantity, the severity of the attack being in proportion to the amount which has been taken. Almost immediately after it has been swallowed she has rigors and vomiting, and in a very short time the tongue becomes parched and dry, the throat sore, and there is severe headache and pain in the back. The very smallest quantity of egg, no matter how disguised in any other form of food, will produce the symptoms, more or less severe. The symptoms may continue from a few hours to two days. A tiny particle of the white placed on the skin produces nettle rash.

⁂ We believe that the idiosyncrasy is not very uncommon, though this appears to be a very extreme example.

A COINCIDENCE IN MIDWIFERY PRACTICE.

MR. J. S. PURDY, M.B., C.M.Aberd. (Ashington, Northumberland) writes: On February 2nd, 1899, I was in attendance at two labours, and both the infants presented spina bifida. The first mother was a multipara, with narrow conjugate diameter, requiring instrumental delivery; the child survived twelve hours. On inquiry into the family history, the fact was elicited that an aunt on the mother's side had given birth to a child with a similar malformation. The first child of this woman was in perfect health, aged 3 years. On the evening of the same day I was summoned to attend a woman, who was delivered shortly after midnight. I was surprised to find the child was also afflicted with a well-marked lumbo-sacral spina bifida. This child is still living, the only symptom being paralysis of the sphincters. The second mother has a child, aged 7 years, with spina bifida and a meningocele about the size of a cricket-ball. The latter case was treated by Morton's injection without any permanent benefit. This child is paraplegic, though healthy in other respects.

TREATMENT OF TROPICAL HÆMOGLOBINURIA.

DR. VINCENT FFRENCH-MULLEN (District Medical Officer, Plantain Garden River, Jamaica) writes: During a practice here of some twenty years I have seen but three cases of blackwater fever. In each case the fever was of the remittent type. I treated them with an alkaline mixture, and gave quinine freely. The urine quickly cleared up, and in a few days my patients were convalescent. I noticed that they took much longer to recover their strength than cases of remittent fever in which hæmoglobin was absent from the urine. The type of fever as seen by Dr. Cross must differ from that seen by me, as I feel certain the treatment suggested by him would not have been sufficient in my cases. I remember some years ago attending a negro for hæmoglobinuria which had persisted for some weeks ere I saw him. As he lived in a swampy place I am of opinion the cause was malaria, though he had not suffered from fever for some time before coming to me. A change of residence liquor ferri perchloridi in doses of ♏v soon restored him to health

LETTERS, COMMUNICATIONS, ETC., have been received from:

A Dr. B. Addy, Southport; Mr. A. E. Aspinall, London; Mr. T. Aquino, Sholapore; Dr. L. Atthill, Dublin; Professor T. Clifford Allbutt, Cambridge; Mr. A. B. Avarne, Blaenavon. **B** Messrs. Burroughs, Wellcome and Co., London: Dr. E. Boix, Paris; Mr. M. R. J. Behrendt, Scunthorpe; Dr. G. G. Bantock, London; Professor de B. Birch, Leeds; Mr. F. Broadbent, North Collingham; Mr. W. F. Brook, Swansea; G. Birt, M.B., Stourbridge; Mr. O. Biddle, Merthyr Tydvil; Mr. W. Berry, Wigan; W. C. Burns, M.B., Walls; Berkefeld Filter Company, London; Dr. J. B. Bird, Carlisle; Mr. P. D. Barker, Colchester; Mr. J. Bigwood, M.P., London; J. F. Bullar, M.B., Southampton. **C** Mr. H. B. Collins, Kingston-on-Thames; Mr. J. W. S. Christie, Stafford; Correspondent; Mr. C. Challinor, Leigh; Mr. F. W. Collingwood, Hastings; Dr. A. Cohen, London; Messrs. J. and A. Churchill, London. **D** Dr. A. T. Davies, London; Mr. W. B. Darroll, Leintwardine; Dr. W. Dobie, Keighley; Mr. E. S. S. Davis, St. Blazey. **E** W. Edmunds, M.B., London; Mr. F. H. Edmonds, George Town, Demerara; Mr. F. Elvy, Eastbourne; Dr. R. Eager, Bristol: Dr. W. Ewart, London. **F** Dr. P. J. Freyer, London: Messrs. Fassett and Johnson, London; Mr. T. K. Freeman, London; Mr. C. Franks, North Collingham; Dr. N. R. Finsen, Copenhagen; Mr. R. F. Flood, Newark; P. Flemming, M.B., London; Mr. G. H. Frost, London; Mr. A. B. Francis, Carrickfergus; Dr. V. ffrench-Mullen, Plantain Garden River, Jamaica. **G** Mr. A. Greenwood, London; Sir W. T. Gairdner, Glasgow; Mr. F. H. Gervis, London; Dr. L. G. Guthrie, London: J. W. Grant, M.B., Woburn Sands; Dr. S. J. Gee, London; Mr. T. W. H. Garstang, Knutsford. **H** Mr. B. Heckstall-Smith, London; Mr. J. J. Hanly, Mendip; Dr. T. B. Hyslop, London; Dr. R. G. Hebb, London; Heretic; Mr. C. T. Holland, Liverpool; Dr. A. B. Hill, Birmingham; Mr. C. Heath, London; Hairsplitting; Mr. F. Haydon, London; Mr. J. T. Harthill, Willenhall. **I** Infirmary. **J** Mr. H. H. Jennings, London; Dr. A. Johnston, Glasgow; Dr. J. Johnston, Bolton; R. Johnson, M.B., London; Mr. R. H. Johnston, Edinburgh. **K** L. Knuthsen, M.B., Falmouth; Mrs. Kingsley-Hunter, London; Dr. L. W. A. Keiffenheim-Trubridge, Hoo. **L** Dr. R. Livi, Rome; Mr. J. C. Lloyd, Lewes; L.S.A.; L.R.C.P.Edin.; Dr. P. Letters, Valencia Island; Mr. K. Lunn, London. **M** M.R.C.P.; Mr. F. H. May, Birmingham; Dr. T. Mitchell, Gorseinon: F. C. Madden, M.B., Cairo; M.B., C.M.; Dr. H. L. McKisack, Belfast; Member B.M.A.; Dr. C. J. Morton, Walthamstow; B. G. A. Moynihan, M.B., Leeds; J. Macintyre, M.B., Glasgow; Mars; W. Mitchell, M.B., Bradford; T. H. Morris, M.B., Tylorstown; Dr. G. R. Murray, Newcastle-on-Tyne; Mr. K. B. Murray, London; Mr. F. H. Madden, London; V. Miller, M.B., Stockton; M.D.Lond.; C. Martin, M.B., Birmingham; Mr. E. Merck, London; M.B. **N** Mr. W. S. Newton, Stockport; Mr. A. Newall, Newcastle-on-Tyne; National Deposit Friendly Society, the Secretary of the, London; Nottingham Medico-Chirurgical Society, the Secretary of the, Nottingham; Mr. N. H. Nixon, London. **P** Dr. J. E. Platt, Manchester; Mr. G. Pernet, London; J. C. Potter, M.B., Spennymoor; Mr. W. M. Palmer, Royston; P. P.; W. T. Prout, M.B., Freetown, W. Africa; Puzzled: Messrs. Potter and Clarke, London; Mr. T. Partridge, Stroud; Practitioner; Mr. F. G. Parsons, London. **R** Mr. T. Robinson, Clonakilty; R. M. H.; Dr. G. D. Robinson, London: Dr. H. C. Rose, London; Mr. J. H. Ross, Bishop Stortford; Mr. A. Roche, Dublin. **S** Mr. R. C. Saunders, London; Mr. G. A. G. Simpson, London; Salop: Dr. W. K. Sibley, London: T. Stevenson, M.B., Liverpool; Dr. W. Sellers, jun., Radcliffe; Surgeon-General (Retired); Dr. H. Snow, London; W. W. Sinclair, M.B., Ipswich; Dr. J. F. J. Sykes, London; Mr. N. S. Smith, Passage West; Dr. J. B. Sanderson, Oxford: Mr. H. Sell, London; Dr. S. Sunderland, London; S.I.P.A.; S. W. W.; Dr. J. L. Smith, Belfast; J. B. Shaw, M.B., Selkirk; Messrs. Street and Co., London: Dr. A. J. Sharp, Whitby; Mr. T. D. Sewell, London; S. S. M. S. **T** Mr. W. Toogood, London; Tasmanian Eucalyptus Oil Company, London; T. S. Tuke, M.B., London; Mr. H. J. Towlson, Barrowden; Mr. O. B. Thomas, London; Mr. W. Thornthwaite, London. **V** Mr. V. C. J. Vanderstraaten, Galle, Ceylon. **W** Dr. S. West, London; Would-be I.P.S.; F. Wyatt-Smith, M.B., Reigate; Dr. B. Walker, Kirkby-Stephen; Dr. W. Whitla, Belfast; W. L.; Sir H. T. Wood, London; Dr. F. Willcocks, London; Mr. H. R. Wilson, London; Messrs. W. Watson and Co., London: Mr. W. R. Williams, Machynlleth; Dr. T. J. Wood, Bradford. **X** X. **Y** Dr. M. Young, Crewe; etc.

BOOKS, ETC., RECEIVED.

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The Essentials of Chemical Physiology. By W. D. Halliburton, M.D., F.R.S. Third Edition. London: Longmans, Green and Co. 1899. 5s.

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Remedies for the Needless Injury to Children involved in the Present System of School Education. By C. Dukes, M.D. London: Rivington and Co. 1899. 1s.

⁂ In forwarding books the publishers are requested to state the selling prices.

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THE LUMLEIAN LECTURES
ON
BRONCHITIS, PULMONARY EMPHYSEMA, AND ASTHMA.

Delivered before the Royal College of Physicians of London.

BY SAMUEL GEE, M.D.LOND.,
Fellow of the College and Physician to St. Bartholomew's Hospital.

LECTURE I.*

ON THE CAUSES AND FORMS OF BRONCHITIS.

MR. PRESIDENT AND GENTLEMEN,—The Royal College of Physicians of London has never forgotten the exhortation addressed by Harvey "to the Fellows and Members of the said College to search and study out the secrets of Nature by way of experiment." No doubt he used the word "experiment" in a wider sense than that which it bears at the present day, for in his time the terms "experiment" and "experience," originally synonymous, had not yet acquired the sharply distinguished meanings which we give to the words. My predecessors in this lectureship have usually drawn the material wherewith they have fulfilled their duty from their experience in the detection and treatment of disease, and the conditions of my life for many years past have put the necessity upon me of following in the same track to the best of my ability. How much more difficult a task this is than to compile lectures out of the unlimited data of that factitious experience which we distinguish as experiment is brought home to me when I recall the preparation of the Goulstonian Lectures which I gave in this room nearly 30 years ago. Experience cultivates a capricious soil, which too often yields a scanty harvest; the fruits of experience are those which Nature happens to afford and no more. Our hopes for the future lie in the fields of experiment where we can work under conditions of our own making and can, as it were, propose questions to Nature and compel her to answer them. Results so beneficial to mankind as those afforded by the antiseptic treatment of wounds and by the serum treatment of diphtheria make the followers of Hippocrates and Sydenham look with regret upon their methods, so slow when compared with those of experimental pathology.

DEFINITIONS.

Scattered through the Hippocratic treatises are frequent references to a doctrine that the brain resembles a gland and is the "metropolis" for separation or secretion (words which have almost the same meaning) of cold and viscid humours. When these humours have accumulated in excessive quantity the brain purges itself by discharging them upon the lower parts of the body—a process called catarrh, defluxion, or distillation of rheum, pituita, or phlegm. In the name of the pituitary body we find a survival of this doctrine. The diseases which result from defluxion of rheum have, says Plato, "many names, because the places subject to the flux are manifold." By the Hippocratic writers seven kinds of catarrh are enumerated; by the time of Celsus the number had been reduced to three. In the Salernitan verses these same three defluxions are enumerated, but the name "catarrh" is restricted to defluxion upon the lungs, catarrhus ad pulmones, pulmonary catarrh.

The change from ancient to modern doctrine is marked by a voluminous treatise in six volumes quarto, published between 1660 and 1664, and written by Schneider whose name has been given to the Schneiderian membrane. We must admire the divine leisure of the times which could allow any man to write such a book or any man to read it. This change in the doctrine of catarrh was brought about partly by the progress of anatomy and partly by Harvey's discovery which sapped the authority of the ancients.

Since Schneider's time catarrh has denoted excessive secretion of more or less altered mucus from a mucous membrane. Hence pulmonary catarrh signifies a disordered function of the pulmonary mucous membrane, the result being an excessive secretion. The corresponding lesion of structure—that is to say, inflammatory changes in the mucous membrane—is called bronchitis, a word which was invented in 1814 by Dr. Charles Badham, a Fellow of this College, and which has to a great extent superseded the old phrase of "pulmonary catarrh." It is amusing to contrast the diminutive duodecimo of Badham with the gigantic work of Schneider. The use of the word "bronchitis" marks the predominant influence of morbid anatomy. Bronchitis and pulmonary catarrh, although for the most part they denominate different aspects of the same disease, yet do not exactly tally; bronchitis is not always catarrhal; for instance, it may be attended, not by flux of mucus, but by formation of false membrane.

CAUSES.

Bronchitis is a disease of much interest for the English people, inasmuch as in our country a pulmonary catarrh is the commonest of disorders at all ages and in all ranks and conditions of life. In speaking thus of the frequency of bronchitis, it is worthy of note that this opinion is derived from clinical experience, and that bronchitis is not a condition which attracts much attention on the *post-mortem* table, where the severe forms only of the disease are recognised, or, indeed, one might almost say, can be recognised without much more minute examination of the bronchial tubes than they usually receive. When we ask why bronchitis should be so common, we are led to consider the causes of the malady. Let us begin with the simplest case possible, and seemingly the most intelligible.

A number of men are working in a room when a large carboy of fuming nitric acid is broken. They all flee. After a time a healthy young man, having tied a wet towel round his mouth, goes back into the room and opens the windows. Symptoms of bronchitis immediately appear, painful soreness down the sternum and dyspnœa, his voice remaining natural. Next day he has a harsh dry cough and abundant small mucous *râles* all over both lungs; his temperature rises to 101.4° F., his pulse to 100, and his respirations to 56 in the minute. On the third day the temperature varies between 99° and 101°, the respirations fall to 44; the signs in the chest are much the same. On the fourth day the temperature falls from 100° in the morning to the normal in the afternoon; the *râles* have almost disappeared. On the sixth day he is quite well.

Bronchitis, being an inflammation, presumes irritation of the mucous membrane, and in this case there was no reason for supposing that the irritation was originally due to anything besides the nitrous fumes, even if we admit the possibility that microbes might afterwards come to play their part upon a soil thus prepared for them. But the cause of bronchitis is seldom so simple as this.

Breathing dust has long been recognised as a cause of pulmonary catarrh; for instance, Ramazzini two centuries ago devoted several chapters of his book *De Morbis Artificum* to the diseases, chiefly pulmonary, which attend dusty trades. At the outset it seems to be necessary to distinguish between dust which is alive and inanimate dust. Taking inanimate dust first as being the less complex topic, we must again distinguish between dust which contains soluble constituents and that which does not.

Insoluble dust is in most cases of mineral nature, yet the air of a cotton mill is smoky with vegetable dust. The bronchitis resulting from dusty trades is very chronic, insidious in onset and slow in progress. Insoluble dust is supposed to act as a merely mechanical irritant to the bronchial membranes, but can we say that any sort of dust is absolutely insoluble? And when we endeavour to look more deeply into the matter other doubts arise, as usual. We suspect that the tendency to bronchitis which prevails among working men in dusty trades is often aggravated by intemperate habits in respect of alcohol and tobacco. Probably in some workmen there is an original disposition to suffer in this way, such as we see in many asthmatics, who are very sensitive to dust. Moreover, the dust of unclean and ill-ventilated rooms will be very likely to contain morbific microbes and the irritation of the air passages set up by inanimated dust will favour the operations of the many bacteria which are potent to cause bronchitis. It obviously would be very improbable that these microbes should swarm in impure air and should not be found in the upper air passages of man. And thus, as a matter of fact, our mouths, noses, and throats harbour many morbific microbes in a latent state; they are there awaiting a favourable opportunity for becoming active and virulent, when, to quote the Virgilian phrase of which Sydenham was so fond, *qua data porta ruunt*.

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* Lectures II and III will be delivered on March 21st and 23rd, 1899.

Although it is probable that inanimate dust is sometimes noxious by reason of its soluble constituents, yet it is not easy to point to many instances of this kind. The dust of ipecacuanha, which is often referred to, produces asthma rather than catarrh, but it may be that this is a distinction without real difference.

The topic of living animated dust follows in natural order. The best instance of this kind of dust is afforded by the pollen of grass, which seems to have been proved capable of causing hay fever in some susceptible persons, though that in which the irritant power of pollen inheres is not known. And the question is complicated by the fact that in a few persons the mere odour of roses and some other flowers seems enough to provoke catarrh, although, since the famous experiment of Dr. J. Noland Mackenzie, with an artificial rose, we have learned how large a part in the production of such a catarrh can be played by the power of the imagination. Moreover, the particles which convey the smell of flowers must be far too minute to be rightly called dust, and therefore we will not pursue the subject here, but only remark that hay fever affords the best evidence of that idiosyncracy which predisposes to catarrh.

The catarrh which is caused by the living dust thrown off by certain moulds and fungi is sometimes a much more serious affair. The best known of these fungi is the dry rot of deal wood—merulius lacrimans. The disease it sets up is sometimes fatal. Besides the catarrhal symptoms indicated by the epithet "lacrimans" there are signs of poisoning of the whole body. The fungus grows upon the mouth and fauces, whence we may assume that the morbific agent consists of living seeds which under favourable conditions will strike root in the human body, will increase and multiply—will become, in fact, true parasites, and will poison us with their secretions.

Grass pollen is morbific, dry rot is morbific and parasitic, but they are only accidentally so; it is not the purpose of their life to cause disease in man. But there are certain living particles called "microbes" which are essentially morbific and parasitic, which to the best of our knowledge are that and nothing else, which continue to exist by causing disease and for that sole purpose, as it seems to us—which are morbific or nothing at all, because, being merely parasitic in animals, it follows that if these animals ceased to exist the microbes also would become extinct. Some of these microbes are found almost everywhere; they pursue the steps of men and are apt to attack us at all times and places. But some microbes thrive only under certain circumstances; the best known of these causes of bronchitis are typhoid fever and influenza. In some forms of bronchitis the disease is local, and expends itself upon the mucous membrane; the catarrh is protopathic. But in typhoid fever and influenza the case is different; the catarrh is deuteropathic and secondary to infection of the whole system. These two diseases are members of the great class of specific fevers, and we are compelled by analogical reasoning to believe that other members of that class which are still more powerful causes of bronchitis are also microbic in nature—for example, measles and whooping-cough. How they cause bronchitis is a question not yet ripe for answer, meanwhile we assume that some irritant is conveyed to the mucous membrane by the blood.

We have now passed from the simplest to the most complex causes of bronchitis, so far as our knowledge will allow, and yet by far the greater number of actual cases of bronchial catarrh remain unexplained. What is the explanation of a common cold? We can hardly doubt that chill by exposure of the body has often something to do with it, but how? Let us note that colds are seldom caught, as we say, in pure air—at sea, for instance—no matter how great the exposure. Let us note also that common colds are often contagious, with an incubation period of about three days. You will remember the deeply interesting experience of the St. Kilda cold, a fact which seems to be well proven notwithstanding the incredulity of Dr. Samuel Johnson, and which seems to show that persons who are not themselves suffering from catarrh may yet convey the disease to others, and that a cold past and gone confers temporary immunity. We have heard of late that upon some of the small islands in the Torres Strait the natives, until they took to wear clothes, were exempt from coughs and colds; but it is difficult to understand how the mere fact of clothing pure and simple can have been the cause of those disorders. It would seem to be more probable that the inhabitants have been infected by their clothes or other means, and that the catarrhs have been really due to the intruding foreigner, who brought along with him his civilisation and his diseases.

The Catarrh.

Of the signs which make bronchitis manifest in the living body, the most important is the catarrh, the excessive secretion of mucus. We might expect that physicians would pay great attention to the sputa, and such has been the fact from the earliest times. A sharp distinction has been drawn, since Hippocrates at least, between transparent sputa and opaque sputa; chiefly for prognostic reasons based upon the old doctrine of the concoction of humours, opacity being the sign of maturity and a stage which the secretion must pass through before the catarrh can end in recovery. This distinction being of such prime importance in the opinion of ancient physicians, it is remarkable that they had no words in use to correspond with their ideas. "Phlegma," "blenna," "pituita," "mucus," all these words were used haphazard to signify matter constituting the sputa, whether transparent or opaque. In truth, the distinction is not of great value; however true it may be of acute coryzal secretions that the mucous discharge becomes muco-purulent on the way to recovery, we do not always mark these stages in bronchitis even when acute, while in chronic bronchitis the distinction is of small importance, either prognostic or diagnostic. How common it is to see mucous and purulent sputa in the same spitting-pot; to see purulent sputa floating or lying in thin, transparent, colourless mucus; probably the different secretions come from different parts of the bronchial tract. How common it is to observe that sputa expectorated at different times of the day are different in character, the secretion being, for example, nearly pure mucous throughout the day, but much more purulent the first thing in the morning, after sleep.

Pituitous Catarrh.

To the general rule that the distinction between crude and concocted sputa is unimportant there is one exception worthy of special note. Laennec, in his chapter upon pulmonary catarrh, has much to say concerning a form of catarrh which he calls "pituitous." He uses the word "pituita" in a sense of his own; he makes it signify colourless, transparent, stringy sputum, frothy at the top, and which when the froth has been removed resembles water stirred up with white of egg. We must all recognise the truthfulness of this description. Louis compared the sputum to gum-water, Borsieri to soapsuds. It is to be wished that the word "pituita" be used to denote this kind of sputum only, because there is no doubt that the catarrh which Laennec calls pituitous does present peculiar characters.

He remarks that pituitous catarrh is symptomatic of other pulmonary disease besides mere bronchitis, especially œdema of the lungs and miliary tuberculosis. With respect to œdema of the lungs, let us note that the albuminous or serous expectoration which occasionally ensues upon paracentesis for pleural effusion, and which depends upon acute œdema of the lungs, and which always brings danger and often death, has to the eye all the characters of pituitous flux. Testing the sputa can alone distinguish the two: serous expectoration is highly albuminous; pituita is not albuminous at all.

With respect to tubercle, let us note that not only miliary tuberculosis but also massive grey tuberculous infiltration may be attended by pituitous expectoration. A man, 35 years old, had a shivering fit on September 6th. On the 8th he felt sudden pain in the right side of his chest; he coughed, and was feverish. On the 16th he was admitted to the hospital, being the eleventh day of his disease. Consolidation of the upper part of the left lung was found, and the previous symptoms having been those which most usually attend pneumonia it was thought that the lung was hepatised. But the consolidation did not clear up as was expected; on the contrary, the physical signs of disease increased, and by October 10th (the end of the fifth week of illness) the breathing about the left nipple was cavernous. All this time the sputa were pituitous—a fact which seemed contrary to the notion of ulcerating tubercle; moreover, the expectoration was examined twice for tubercle bacilli, probably with insufficient care, and I am speaking of a time, seven or eight years ago, when there was less skill in this method of examination than at present; but, at any rate, tubercle bacilli were not found. Soon afterwards the pituitous sputum became mingled with muco-purulent masses; the physical signs were much more extensive; finally, all the expectoration was muco-purulent and nummular, and the man died on December 25th, after an illness of between three and four months. *Post mortem* the left lung was found to be solid with grey tubercle from apex to base; there were only two cavities, and these of small size.

Besides pulmonary œdema and tubercle there are two other diseases of the lung which are often attended by pituitous expectoration—namely, the congestion which is consequent upon a dilated heart and contracting cancer.

Pituitous catarrh is sometimes "idiopathic"—a word which we need not be afraid to use provided we attach a definite meaning to it. The original and etymological meaning of the word is its true meaning, and pituitous catarrh is idiopathic when it constitutes the whole of the disease. It is sometimes acute, sometimes chronic, and in either case is a very serious condition. The acute catarrh occurs at all ages, and often in persons perfectly healthy, who have shown no previous tendency to pulmonary disease. The secretion rapidly becomes so profuse that it puts life in jeopardy, and will sometimes even kill by suffocation in a day or two. Yet for the first few hours the attack resembles a common cold with cough, and there are no peculiar symptoms attending the earliest stage which enable us to foresee that we have to do with the beginning of so formidable a disease. It does not always kill; sometimes it runs the course of ordinary severe bronchitis and ends in recovery.

Chronic pituitous catarrh is more common. It is serious on account of its obstinacy. To Laennec's admirable description of this disease there is nothing to add unless it be to say that it does sometimes attack persons in the prime of life. A Japanese, aged 25, came over as a ship's steward to England, and immediately upon his arrival began to suffer from shortness of breath and cough—a new thing for him. After these symptoms had lasted for fourteen weeks he was admitted to the hospital. There were much dyspnœa and most abundant expectoration of pituita. Tubercle bacilli were not found. The physical signs were those of severe bronchitis. For days together he seemed about to die from suffocation, but under very careful treatment he improved until, without any obvious cause, the symptoms recurred in full severity. Another improvement was followed by another relapse, and more than four months had passed away since his admission ere he could be discharged fairly convalescent. This was on May 8th, but on June 16th he was readmitted with all his former symptoms; he went out on July 16th. On December 5th he was admitted once more, and the time of the year was probably the reason why we could not get rid of him till February 25th. He had now been a patient on and off for more than a year, and as there seemed no end to this sort of thing, the sister of the ward got up a small subscription and shipped him off to the Antipodes.

Peculiar Kind of Bronchitis.

There is a form of disease which may justly claim to be called catarrhal if we use that word in its strict etymological sense. Graves, speaking of the condition referred to, says: "When an old person reduced by some previous disease catches cold and gets in consequence [illegible] sudden and remarkable hoarseness so that he can only speak in whispers; when in addition to this he has cough, stridulous breathing, and copious muco-purulent expectoration, you may be sure that the case is a bad one and the patient in most imminent danger." He goes on to say that the disease is accompanied by considerable fever, and that he did not recollect that he had ever seen an attack of this kind that did not terminate fatally. He narrates the case of an eminent country practitioner who "had got an attack of cold followed by hoarseness, which went on for two or three days without being attended to, until one evening he suddenly became alarmingly ill. He was found to be labouring under hoarse breathing, constant laryngeal cough, prostration of strength, and enormous muco-purulent expectoration. His pulse was very rapid, he complained much of oppression of the chest, and he died on the following night, more with symptoms of exhaustion than of asphyxia." Graves tells of another similar case in which the "breath became exceedingly fœtid. The expectoration also exhibited a very remarkable change; it was greenish, ichorous, and had a most intolerable fœtor. He now began to manifest symptoms of awful prostation; his distress of respiration became intense, his eyes fixed, his extremities cold, and he expired in about forty hours from the commencement of the attack."

But this form of bronchitis sometimes occurs in old people whose health has certainly not been "reduced by some previous disease." I saw a lawyer, 74 years old, with Dr. T. Robinson. He was in good health when one April, while waiting for a train at Wimbledon, he was exposed to a chilling east wind. Next day (April 8th) he lost his voice. On the 9th his breathing became a little affected, and swallowing was very painful. His voice was not much more than a whisper. Seen by the laryngoscope the epiglottis was very red but not much swollen; the ary-epiglottic folds were not swollen; the glottis was widely open, and through it there welled up much muco-pus. On the 10th he seemed better in all respects. He expectorated much brownish muco-pus which, both in colour and smell, reminded one of the sputum of gangrene; this phlegm came up with the least possible effort, hardly amounting to cough. The laryngoscope showed that the redness of the epiglottis was less, and that there was no swelling whatever. The voice was much louder. But during the night he became worse; fever appeared for the first time, and he complained of pain in the left side. The laryngeal symptoms were gone and his voice was natural, but his breathing became very frequent, and he died at evening on the 11th. The fœtid expectoration calls for remark. Graves assumes that in his case the lung had mortified, but he gives no proof of this, and in my case the fœtor occurred within forty-eight hours from the beginning of the illness in a man previously healthy. Gangrene would hardly set in so rapidly as this. To suppose, in the absence of *post-mortem* examinations, that the smell is due to decomposition of the secretions—to the fœtid bronchitis, in short—would seem more probable.

Disease of this kind is not peculiar to the old. Some years ago I saw a boy, aged 7 years, with Dr. Bland. The patient had been seized a day or two before with laryngeal symptoms which, when I saw him, deserved the name of croup, and the dyspnœa became so urgent that tracheotomy was demanded and performed. We could see that the epiglottis was not swollen, but we could make out nothing more, for examination by the laryngoscope brought on vomiting. The dyspnœa was somewhat relieved, but the boy died a few hours after the operation with all the signs of pulmonary dyspnœa. The only part which we were permitted to examine *post mortem* was the larynx; its mucous membrane was exceedingly red, but there were no false membranes and no œdema, nor were false membranes expectorated or seen during life. The laryngitis was a part (but at first the most obtrusive part) of more widely diffused inflammation. When tracheotomy set the laryngeal symptoms aside the bronchitis became manifest. Moreover in this case there was no reason for suspecting measles. The analogy of the early laryngitis stridula of that disease will occur to your minds at once.

It is likely that the disease in question is essentially of the same nature as œdema glottidis—that is to say, a specific inflammation spreading rapidly, like erysipelas. Hippocrates uses this very word, and in several places speaks of erysipelas in the lung, but to identify the disease thus designated by him is not easy.

Dyspnœa.

To breathing with conscious effort we give the name of dyspnœa. It arises from a peculiar sensation which is not always of the same kind. Two sensations at least can be distinguished. One is sensation of want of breath and impels to inspiration; another sensation impels to expiration. The feeling of want of breath arises within the chest and seems to involve all the thoracic organs. The feeling which impels to expiration seems to arise from the windpipe—that is to say, a patient suffering from expiratory dyspnœa will refer this feeling to the manubrium sterni and region of the trachea. This tracheal sensation closely resembles the feeling which impels to cough, and it is the cause of that expiratory groaning which is so common during the uneasy sleep of patients suffering from bronchitis, emphysema, or heart disease. I do not refer to snoring or stertor, which are inspiratory noises. Thus, medical physiology requires two respiratory centres, one for inspiration and one for expiration.

It has been said that in bronchitis attended with laborious breathing the chief difficulty is in inspiration; that the expiratory act, on the contrary, is always accomplished with comparative ease; and that these phenomena of laborious breathing, particularly the long-drawn, exhausting, inadequate inspiration, are probably quite peculiar to obstructive bronchitis. But surely these propositions are far from being universally true. Even in slight bronchitis occurring in a man who never had bronchitis before the expiration may be much more forced than the inspiration in consequence of the provoking tracheal sensation spoken of before. In chronic bronchitis when the patient raises phlegm with difficulty, the most obvious thing about the respiratory movements in many cases is the forced expiration. If we would see inspiratory dyspnœa in its highest degree and purity, it is not to bronchitis, but to laryngitis, that we must look; to angina laryngea, not angina bronchialis. In mere bronchitis we seldom see anything like the inspiratory dyspnœa of croup.

LIVIDITY.

Lividity is not a marked symptom of bronchitis except in the worst cases. When we see a patient whose dyspnœa amounts to orthopnœa, and whose lips are purple or almost black, we suspect at first sight disease of the heart rather than disease of the lungs. Again, if we see great lividity in a case of bronchitis, we suspect some complication—for instance, pulmonary emphysema, extensive collapse, broncho-pneumonia, scattered tubercle, or distended heart.

The phrase "suffocating catarrh" has been used in senses so varied that some persons have suggested that it should be wholly discarded. Even apoplexy and croup have borne that name. We can continue to use it only on condition that suffocating catarrh shall signify bronchitis in which the patient is in danger of being stifled by bronchial secretion thrown out more rapidly than it can be expectorated. The metaphorical phrase "paralysis of the lungs" has been applied to these cases of catarrhal infarctus. We meet with suffocating bronchitis under three conditions. First, in infants; and a main cause of their liability to suffocating catarrh is to be found in the shape of their thorax, which being almost circular on horizontal section is incapable of more than small lateral expansion. The only extraordinary enlargement which their chest can undergo is by vertical elongation, upwards by means of the accessory inspiratory muscles and downwards by excessive diaphragmatic contraction. Moreover, their ribs are often soft and rickety. Next we meet with suffocating bronchitis in adults when they are attacked by pituitous catarrh in a severe degree. And, thirdly, suffocating bronchitis is common as an exacerbation of chronic bronchitis in persons who are for the most part advanced in life.

In these cases, *post mortem*, we often find that form of pneumonia which bears no name adopted universally. Our own *Nomenclature* gives us the choice of three names. We may use the name "lobular pneumonia," in contradistinction from lobar pneumonia; or "broncho-pneumonia" in contradistinction from pleuro-pneumonia; or catarrhal pneumonia in contradistinction from what has been called "croupous pneumonia." The name of broncho-pneumonia is to be preferred. Croupous pneumonia is what Polonius would have called a very vile phrase. It is amusing to note how the Lowland Scotch word "croup" (the cognate English word is "roup"), which signifies a certain kind of noise, has come to be applied to a morbid exudation—a perversion due to foreign pathologists who could not have known the meaning of the word which they were using or abusing. And thus croup, having undergone this strange metamorphosis in the course of his travels abroad, comes back disguised to his native land and we receive him with open arms. Such are English ways.

Broncho-pneumonia is the last stage of inflammation extending downwards along the air passages into the pulmonary lobules. Catarrh implies a mucous membrane; but the bronchioli which feed the pulmonary lobules with air possess no mucous membrane; in these parts, therefore, lobular hepatisation takes the place of bronchial catarrh. The difference in the products of exudation depends more upon the situation of the disease than upon any difference in its cause. The microbes found in lobular pneumonia are the same as those found in bronchitis, although the relative frequency with which they are found is not the same in the two diseases. To the last volume of *St. Bartholomew's Hospital Reports* Dr. Horton Smith has contributed a valuable paper upon the bacteriology of acute broncho-pneumonia. He finds that the microbe most frequently present is pneumococcus, less frequently streptococcus, and still less frequently staphylococcus. He finds that the broncho-pneumonia of typhoid fever is due to these common microbes, and not to the special typhoid bacillus. But he thinks that the broncho-pneumonia of diphtheria and influenza most frequently depends upon their several proper and peculiar microbes; and yet that in a few cases the pneumonia is not specific—that is to say, none but the common pyogenic microbes are found. One very practical truth has been well established—namely, that in measles the frequency with which broncho-pneumonia occurs is dependent upon the degree of impurity in the air breathed. The main cause of death in measles is broncho-pneumonia, and the mortality in some epidemics has been as high as 50 per cent. Thus any mysterious change of type or epidemic constitution seems to be resolved, so far as concerns measles, into the condition of the air breathed by the patients. Hence the necessity for isolation, for ventilation, and for cleanliness.

The pneumonic part of broncho-pneumonia is a *post-mortem* disease or, in other words, it can seldom be detected with certainty during life. In severe progressive capillary or suffocating bronchitis which threatens the patient with death we may assume that lobular pneumonia is present, inasmuch as it is the last stage of the disease. Neither symptoms nor physical signs help us much; the patient is too ill to bear prolonged examination; nor does it matter in the least whether we detect the pneumonia or not, for our treatment is the same in both cases.

CHRONIC BRONCHITIS.

Chronic bronchitis associated with emphysema, and in all respects like the disease common in old people, is by no means very uncommon in the young, that is to say, in patients under 20 years of age. But this is the case, especially among the lower classes of the people; among the well-to-do, chronic bronchitis is uncommon in the young. When we bear in mind that with asthma it is quite the reverse—that juvenile asthma is common among the well-to-do and uncommon among the lower classes—the suspicion arises that we have to do with what is essentially the same disease assuming different forms under different conditions of life. The poor are very careless with regard to their health, and it is probable that through neglect what would otherwise be asthma becomes a chronic pulmonary catarrh.

The heart is dilated more easily in children than in adults, and thus cases of juvenile chronic bronchitis gradually pass into a state wherein the symptoms of dilated heart predominate over those of the original disease. Some years ago I examined the body of a boy, aged 13 years old, who had suffered from chronic bronchitis since 18 months of age, when he had measles and whooping-cough. He was so deeply cyanotic that the question of malformed heart arose; his fingers were much clubbed, and there was universal dropsy. The *post-mortem* examination showed emphysema of the lungs, especially of their anterior parts. The right side of the heart was much dilated and hypertrophied, but there was no valvular disease nor was there any malformation. The liver was nutmeg.

That predisposition which tends to make bronchitis chronic is often hereditary, and is often acquired. In many persons a powerful assistant cause of the chronic bronchitis is alcohol. Sydenham alludes to this fact when speaking of "peri-pneumonia notha," which no doubt for the most part consisted of febrile exacerbations of chronic bronchitis. He says that the disease "affects those who are of virile age, or, what oftener happens, those who are older and have been too much given to spirituous liquors, especially to brandy." The evil effect of alcohol is sometimes seen in persons who cannot be justly called intemperate, and a marked diminution of the tendency to bronchitis will sometimes occur in patients who become total abstainers after having been in the habit of drinking not more than a usual quantity of wine. The swollen, deeply red, and irritated soft palate of many hard drinkers probably affords a clue to the nature of alcoholic bronchitis.

Post-mortem examination of the bodies of persons past middle life reveals the fact that their chronic bronchitis is seldom unassociated with chronic nephritis, arterio-capillary sclerosis, chronic endocarditis or pericarditis or myocarditis, and atheroma of the aorta, not to sperk of pulmonary emphysema—lesions which constitute an important part of the condition which we designate "old age."

That a tendency to chronic bronchitis and a tendency to gout concur in many patients is a frequent experience, and there can be no objection to our expressing this fact by calling the bronchitis gouty, provided the evidence of gout be sufficient. But I fear that gouty bronchitis is often talked about when the evidence of gout is small. Before the term "gouty" is predicated of any disease the reasons for the affirmation ought to be carefully examined. To define the word "gout" is not possible; the essential nature of gout we do not know. Doubtless there are satisfactory criteria or notes of gout, such as regular attacks in the hand or foot, tophi, and the discovery of uric acid in the blood. But medical men are often content with much lower probability than this when they pronounce a patient to be gouty, and I am far from saying that they are wrong. Howbeit the name of "gout" has been extended in meaning so as to include a vast number of diseases, but whether these speculations are as sound as they are ingenious, whether they are solid structures grounded on truth or no more than the phantoms of a lively imagination, I will not take upon myself to determine. Time will show. "*Medicina non ingenii humani partus est sed temporis filia.*"

Phthinoid Bronchitis.

There is a form of chronic bronchitis which bears a close resemblance to tuberculous pulmonory consumption; the disease is nothing but bronchitis, yet the symptoms are those of phthisis pulmonalis. The interest of this topic is mainly antiquarian for us, because it throws an important light upon the progress of pathology. Before the invention of auscultation the patients alluded to were necessarily believed to be suffering from pulmonary consumption, and, indeed, they were so suffering in the original sense of the phrase. For the epithet, "consumption" or "phthisis," related to the condition of the whole body, to the progressive emaciation in fact, while the word "pulmonary" indicated that the disease, whatever it was, which caused the emaciation, was seated in the lungs. This was the sense in which our eminent Fellow, Richard Morton, used the phrase in his admirable book entitled *Phthisiologia*. In the phthinoid or consumptive form of bronchitis there is an abundant expectoration of purulent sputa. The early physicians knew of no source of pus but an ulcer, and hence they inferred that the lungs were ulcerated. The first man to discover that this was not the case was that singularly accurate observer Antony de Haen; but even after he had shown that the lungs, examined *post mortem*, were to all appearance sound, free from all ulceration, and yielding not a drop of pus on section, yet matters were not much advanced for practical medicine because the diagnosis could not be made during life. And here the subject stood until the time of Laennec. Perhaps you remember that Sir Thomas Watson confessed in his lectures that he once made this mistake, and pronounced a young woman to be in the last stage of consumption who soon afterwards made a rapid and complete recovery, he having omitted to auscultate her chest. Even auscultation does not always enable us to distinguish these cases with perfect certainty, but since Robert Koch's discovery of the tubercle bacillus we have a potent auxiliary to diagnosis in the microscopic examination of the sputa.

Conclusion.

In conclusion, we will revert to the results of our search into the causes of bronchitis. We found it to be highly probable that most catarrhs are due to a specific infection, and they often depend upon contagion spreading from man to man. This doctrine has very important bearings upon medical practice. It leads us to believe that the means by which we may prevent catarrh are to be found in ventilation and cleanliness, if, indeed, ventilation be not a kind of cleanliness. Experience confirms this belief. When epidemic catarrh prevails, where do we find most of our patients? In those houses which are obviously the worst ventilated, even though they be the spacious houses of the rich. And where do our patients catch their catarrh? Either in houses of the kind which I have mentioned or in buildings where men most do congregate, especially in offices, shops, and churches. Large shops and stores, public museums and libraries, are ventilated as little as possible for fear of their contents being spoilt by smoke and dust. Many churches both in town and country are never properly aired for another reason—namely, because their architecture does not admit of it. Those "rich windows which exclude the light" do worse than this—they exclude fresh air. The revival of Gothic architecture has been, from the sanitary point of view, a great mistake. Our despised forefathers of the eighteenth century erected plain and simple buildings which could at least be well aired, well lighted, and kept warm and comfortable; nay, even the much-ridiculed churchwarden, with his brush and pail of whitewash, was a praiseworthy minister of health. Modern dwellings are no better than the churches. In the matter of domestic sanitation people have fixed their attention too exclusively upon the drainage and the water supply; light and air are not reckoned. Many of the large red-brick houses which have been built in great numbers at the West End of London and elsewhere during the last twenty-five years cannot be properly ventilated. The well of the staircase ought in every house to be a reservoir of pure air, and to have an independent supply from without. But in many houses the staircase cannot be ventilated except through the rooms, and, in fact, it never is ventilated. Nor are the rooms themselves much better off; their heavily mullioned windows are designed with small regard to the transmission of light and air. The subsidiary and merely ornamental arts, which do no more than please the eye, are studied to the neglect of that far greater art which promotes the happiness and welfare of the whole man—the art of preserving health.

THE GOULSTONIAN LECTURES

ON THE

PATHOLOGY OF THE THYROID GLAND.*

Delivered before the Royal College of Physicians of London.

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Lecture II.

[Abstract.]

Results of Loss of Thyroid Secretion in the Young.

In commencing his second lecture Dr. Murray referred to the effects the result of loss of thyroïd secretion in the young, and quoted evidence to show that in young animals and children, in addition to other symptoms, there was arrest of development. If the arrest of development or destructive disease of the thyroid occurred early in life, symptoms of primary cretinism, which are the same in the sporadic as in the endemic form, soon began to appear.

As in myxœdema in the adult so in cretinism were found different degrees of severity. As the success of treatment depended so much upon an early start being made with it, he urged the importance of carefully considering the possibility of cretinism in all cases where some arrest of development was noticed early in life, they find various intermediate types between the extreme form of which he had given an example and ordinary myxœdema dependent upon the age at which

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the disease first commenced. The older the child at the time of the onset the less marked the want of development, and the more nearly the disease resembles the adult type.

RENEWAL OF THYROID SECRETION.

Dr. Murray then stated that when the supply of the secretion was renewed, metabolism was once more completed in a normal manner, and in cretins was so markedly reawakened that general growth again progressed even after it had been arrested for ten or twenty years. Schiff and Von Eiselsberg had shown that a portion of thyroid gland successfully transplanted into the subcutaneous tissues of a dog or cat could maintain a sufficient supply of secretion to avert the acute symptoms of athyroidism, and Mr. Victor Horsley made a great step in advance when he suggested that a similar procedure should be adopted in man. The procedure had been followed in certain cases by marked improvement, but unfortunately the grafted gland appeared not to be able to maintain an independent existence for long, and the symptoms returned. The excellence of the temporary results obtained, however, had led Dr. Murray to suggest that a simpler method of maintaining the necessary supply of thyroid secretion would be the continued internal administration of the secretion itself. With this view he had prepared a glycerine extract, and such an extract was now official in the *British Pharmacopœia*. At first he had administered the extract by hypodermic injection, but it was shown independently by Howitz, E. L. Fox, and Mackenzie that it was quite efficient when given by the mouth. The administration of thyroid extracts in animals deprived of their thyroid glands rendered it possible to distinguish between the symptoms due to loss of the parathyroid to those due to the loss of the thyroid. It seemed probable that the acute nervous symptoms in the monkey, such as the fibrillary twitchings, the spastic rigidity, and perhaps also the tremors and convulsions were largely due to loss of the parathyroid, while the subcutaneous swelling, dryness of skin, loss of hair, subnormal temperature, and changes in the blood were due to loss of the thyroid secretion. That conclusion received further support from the close resemblance of the latter symptoms to those of primary myxœdema in man, which they knew to be the result of disease of the thyroid gland, there being no evidence as yet to show that the parathyroids were affected in this disease. If that be the correct explanation, it was not surprising that these particular symptoms were not influenced by the thyroid extract.

TREATMENT OF MYXŒDEMA BY THYROID EXTRACT.

In primary and secondary myxœdema in man were seen the results of loss of thyroid secretion pure and simple, and consequently they were able to remove the symptoms entirely by giving a sufficient supply of the secretion.

The main objects of the treatment were to remove the symptoms by restoring normal metabolism as rapidly as possible without risk to the patient, and when that had been accomplished so to regulate the treatment as to continue the supply of thyroid secretion in sufficient quantity to maintain the normal rate of metabolism of the tissues generally. For that purpose the treatment was divided into two stages. During the first stage the tissues were gradually brought back to a normal condition. That might, according to the severity of the symptoms, require from one to three months. As soon as the symptoms had entirely disappeared, the first stage was completed. The condition of the atrophied thyroid gland was not influenced by the treatment, so that if the artificial supply of secretion was discontinued at that or any other time of the patient's life, all the symptoms of myxœdema would gradually return, as he had found by actual experience. Thus the second stage of the treatment of necessity lasts as long as the patient lives. It is therefore necessary to make the permanent daily dose as nearly as possible equivalent to the normal amount of secretion. If the dose fell below that, slight symptoms of myxœdema would reappear, and if it was excessive a condition of thyroidism will be produced.

PREPARATIONS OF THYROID EXTRACTS.

Dr. Murray observed that in out-of-the-way places, and where expense was a consideration, the actual gland itself containing the secretion might be administered. One-eighth to one quarter of a lobe of the sheep's gland was a suitable daily dose, one quarter being equivalent to about 10 minims of liquor thyroidei; it should be minced. It may be taken in glycerine or some some similar vehicle, and may be lightly cooked on the outside by frying or boiling. As a rule, however, it was better to employ one of the preparations of the thyroid gland. The liquor thyroidei was the most convenient preparation for general use, and in his experience the most efficient and uniform in strength. Not more than a sufficient supply for a fortnight should be obtained at one time, and the patient should measure out the dose and mix with a dessert-spoonful of water at the time of taking. The dry thyroid of the *Pharmacopœia* might be given as a powder, or made up into a pill or tablet. If the dried preparation became damp at all, it was liable to decompose and become unfit for use.

METHOD OF TREATMENT.

In advanced cases the first stage of the treatment must be carried out with great caution, especially if any symptoms of degeneration of the cardiac muscle, such as attacks of syncope, dyspnœa on exertion, feeble or irregular pulse, or weak heart-sounds were present. Under these circumstances the patient should be confined to bed at first, and only small doses of three to five minims of liquor thyroidei given each night. This dose, if well borne, might be gradually increased up to ten minims. If not confined to bed these patients are apt to make use of their returning vigour too soon, before the heart has had time to recover, and to adapt itself to the altered conditions brought about by the treatment.

At the present day, however, the greater number which require treatment were seen in the early stages before any cardiac symptoms developed. Such patients were able to go about, but unusual exertion should be avoided during the first stage of the treatment. The daily dose of ten minims of the extract might be given nightly, and increased at the end of a fortnight to fifteen minims if decided improvement had not already taken place. Undue acceleration of the pulse to 90 or 100, or rapid loss of weight were indications for reducing the dose.

Symptoms of gastro-intestinal catarrh were sometimes seen when a raw gland was used, but were seldom observed after a suitable preparation. When they arose the treatment should be stopped until they had passed away, and when the treatment was recommenced smaller doses should be given. When there was well-marked anæmia it was as well to give iron as well as thyroid extract, and for this purpose five grains of dried sulphate of iron in a pill two or three times daily were suitable.

The second stage of treatment began after all the symptoms of myxœdema had disappeared. During this stage, which lasted whilst the patient lived, he must continue to take a daily dose equivalent to the daily output of the gland before it became diseased. An occasional intermission of a week or so had little or no effect, but if it lasted three or four weeks the temperature fell one or two degrees, and the myxœdematous swelling of the face began again to develop. The most suitable dose during the second stage was, generally speaking, ten minims of the extract once a day, but if slight symptoms reappeared the permanent dose should be increased to twelve or fifteen minims. Though this had not been necessary in any of his own cases, in a few cases that dose had produced acceleration of the pulse, and the permanent dose had to be fixed at five or seven minims a day. In doubtful cases a dose of ten minims of thyroid extract should be given daily for three or four weeks, and if the symptoms steadily diminished it might be assumed that they were the result of thyroidal disease.

RESULTS OF THE TREATMENT OF MYXŒDEMA.

When the treatment of a well-marked case of myxœdema was carried out on the lines just indicated, very definite and interesting results were soon obtained. One of the earliest signs of improvement was in the return of the temperature to the normal level. This was illustrated by the chart shown, by which it would be seen that the temperature before treatment ranged from 95° to 96° F., whereas during the second, third, and fourth weeks of treatment it varied between 96° and 98°. As the temperature rises to normal the former sensitiveness to cold was lost, and the frequency of the pulse was increased. The most striking changes were those which took place in the skin with its appendages and in the subcutaneous tissues. The myxœdematous swelling gradually disappeared from all parts of the body, so that the face and hands once more assumed their natural appearance, and the free movement of the limbs, which had been considerably hampered by the swelling, was regained. The reduction of the swelling was accompanied by a loss of weight, which might amount to as much as two or even four stones. The skin, which, as a result of the removal of the swelling, may for a time remain loose and wrinkled, became warm and moist owing to a renewal of the secretory activity of the sebaceous and sweat glands. Not infrequently there was some desquamation which might occur in fine scales or in large flakes from the palms of the hands and soles of the feet, as observed by Byrom Bramwell.[1] The hair follicles resumed their proper function, so that even where there had been complete baldness a good growth of hair was developed in the course of six or twelve months. Considerable changes are thus produced in the appearance of the patient.

In addition to these very obvious signs of improvement, the feeling of lassitude passed away and normal muscular strength and activity were regained. As a result of this, those who before treatment could barely walk a mile were enabled to walk long distances, climb mountains, and undertake various other forms of exercise. Mental processes became more active, the memory improved, and the hallucinations disappeared. In some cases in which actual insanity had occurred it also had been cured. If albuminuria without actual renal disease had been present it disappeared, while the amount of urine was increase. The observations of Ord and White[2] showed that the total amount of nitrogen eliminated was increased, and that the increase was almost entirely due to the increase of urea in the urine. At first the amount of urea excreted might not only equal but actually exceed the normal average quantity. The number of red corpuscles in the blood was increased. In patients who had not reached the menopause menstruation returned, and took place regularly, even where there had been amenorrhœa for several years. In fact, the myxœdema was entirely cured, though the fibrosis of the thyroid gland remained unaffected by the treatment.

Treatment of Cretinism.

Dr. Murray dwelt on the importance of carefully considering the possibility of the presence of disease or lack of development of the thyroid gland in every case of arrest or delay of development in children. In all such cases it was important to look for slight signs of cretinism. The importance of early diagnosis in such cases lay in the fact that the earlier the treatment was commenced the better prospect there was of normal development of the central nervous system. Experience had already shown that in cretinism of some years' duration rapid as the improvement in the physical condition may be, the intellectual development was much slower, so that when treatment was commenced late it was doubtful if the latter would ever advance nearly as far as when treatment was started early. If any doubt existed as to the diagnosis, it was a good plan to carry out the treatment for one or even two months. If no distinct improvement took place the want of development was not due to cretinism, for in other forms of arrested growth the treatment had comparatively little effect, though it is worthy of trial. The treatment of early cretinism should be carried out on the same lines as the treatment of myxœdema in the adult.

In the treatment of cretinism which had lasted for some years they had a much more difficult task to perform, but very good results could be obtained. Even where the disease had already lasted ten or twelve years, provided the patient was not more than 18 or 20 years old, a remarkable amount of growth could still take place. In those cases 3 to 5 minims of thyroid extract might be given at the commencement, and increased according to the progress observed. Even in cases in which the symptoms had lasted for twenty or twenty-five years some growth and marked improvement in all the symptoms took place. In cases of long duration attacks of syncope were not uncommon. In such the earlier part of the treatment was more safely accomplished by keeping the patient in bed, and giving small doses of 1 or 2 minims only at first.

Results of the Treatment of Cretinism.

When the necessary stimulus to the normal metabolism of growth was thus supplied to a cretin in the early stages of the disease the symptoms soon disappeared. The swelling gradually diminished in all parts of the body; the tongue, lips, and nose diminished in size, so that the appearance became natural; the skin became soft and moist and the temperature rose to normal. Growth, which at this early stage would only have been partially arrested, started afresh. If the treatment was continuously carried on in such a case from the earliest time at which the disease was recognisable, there seemed no reason to doubt that ultimately the child would grow up into a fully-developed, healthy adult, who, however, would, of course, at any time develop symptoms of myxœdema if his supply of the extract was discontinued. The amount of improvement which might take place in very advanced cases was well illustrated by the course of the case shown in the photograph.

In this case the symptoms had been present for some twenty-seven years before treatment was commenced. The dose was at first 1 drop a day, gradually increased, till now she takes 15 drops, equal to about 12 minims of thyroid extract daily. At the commencement of the treatment growth had been arrested apparently for many years, as she only measured 34½ inches in height. She now measures 38½ inches, having grown 4 inches in three years and a-half. The hair was much less coarse than it used to be, and the scalp was white and smooth. The swelling had greatly diminished, so that the nose, cheeks, and lips were much smaller than they were, and the whole expression was much more bright and intelligent. The mouth was kept closed, and the tongue had become normal in size and no longer protruded between the lips. The condition of the teeth did not seem to have improved, except that she could now crack nuts, which she was unable to do before. The elastic pads have disappeared from the supraclavicular regions. A most remarkable development of the mammary glands, which before treatment were entirely undeveloped, had taken place. This was all shown in a recent photograph (Fig. 9), in which it would be seen that the nipples and breasts were now very well developed. Some pubic hairs have grown, and menstruation, which had only occurred very scantily on a few occasions, was now regular and abundant. The abdomen was not so prominent, and the umbilicus was retracted. There was still well-marked lordosis.

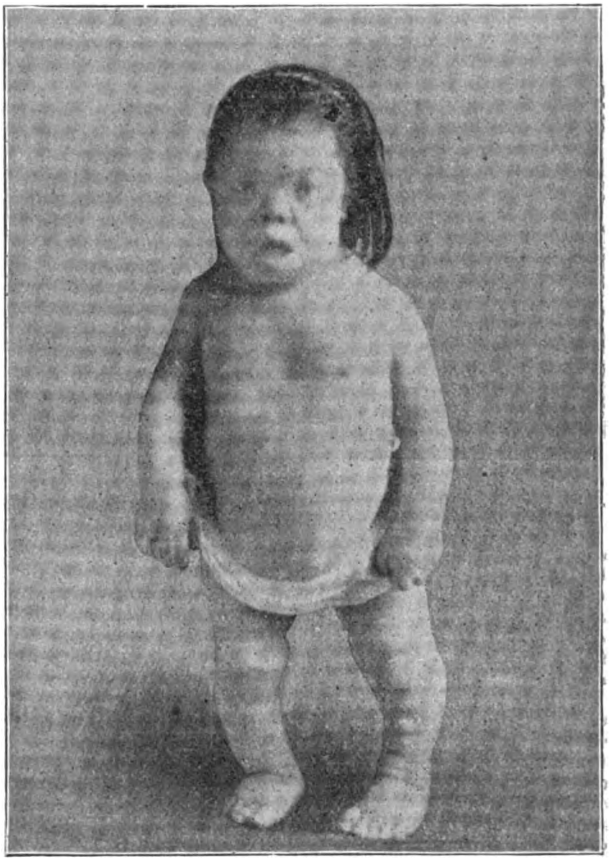

Fig. 8.—G., aged 28, June, 1895, height 34½ inches.

The skin was much less dry, and perspired freely when she was walking. She was much more energetic, and the muscular strength had increased so that she could now walk two miles. The temperature had long been normal. She was distinctly more intelligent, the vocabulary had increased, she could recognise people and animals, and could make her wants perfectly understood. She was unable however, to frame a sentence, and used only single words, or at most two or three together. She was careful and cleanly in her habits.

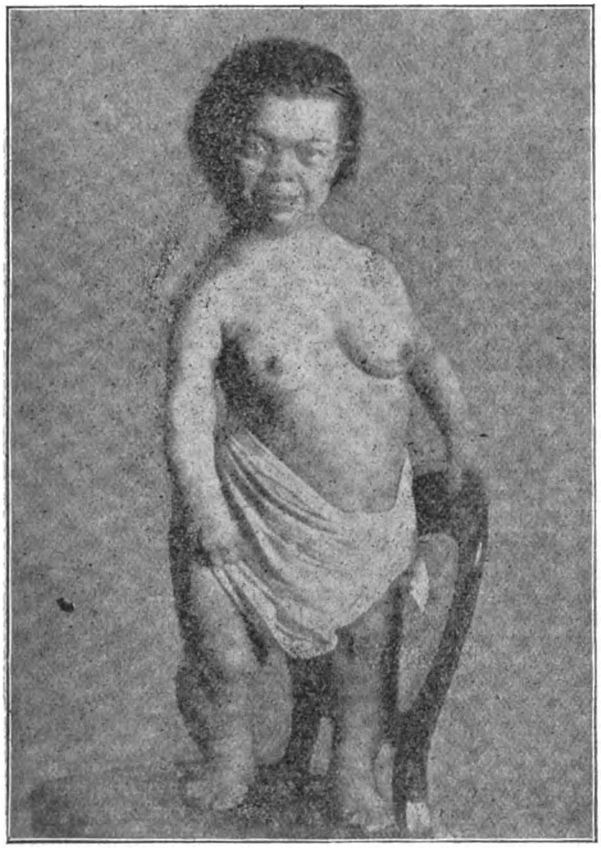

Fig. 9.—G., February, 189 , height 38½ inches.

This case was a good example of the amount of improvement of which even the worst cases were capable. Greater improvement still had been obtained in cases of some years' duration which were still under 20 years of age. Thus in Dr. John Thomson's[3] case, aged 18 years and 8 months, 33½ inches in height, there was an increase in the height of 4⅜ inches in twelve months. In Dr. Byrom Bramwell's[4] case, aged 16 years and 4 months, 29½ inches high, growth was at the rate of 6½ inches in six months.

The intellectual development was always much slower than the bodily growth and general improvement in all other respects. The shorter the duration of symptoms had been at the commencement of the treatment the more rapid the improvement in the mental condition, and Dr. Murray thought it was only in cases in which the treatment was started early that they could expect normal intellectual development to take place. In cases of some duration it was important that a special education should be carried on at the same time as the treatment in order that the patient might be able to make the most of his renewed cerebral activity.

LECTURE III.

COMPENSATORY HYPERTROPHY.

THE whole question of compensation and compensatory hypertrophy of organs in disease is of such great interest and practical importance that any facts which tend to throw light on the conditions under which they are developed are of value. In health we can by specially-arranged exercises bring into operation the pathological law that any muscle contracting intermittingly against an increased resistance which it can overcome undergoes hypertrophy, and thus induce hypertrophy of the biceps or any other muscle. In some diseases our chief object is to favour and encourage compensating hypertrophy by every means in our power. In valvular disease of the heart adequate compensation in the form of "work hypertrophy" is of prime importance, the object of our treatment being to encourage and maintain its proper development, and, as long as possible, ward off the disastrous effects of its failure. All hollow muscular organs develop compensatory muscular hypertrophy, when their work is increased by some abnormal resistance to the expulsion of their contents, which can by an extra effort be overcome. Other tissues also can undergo similar changes, an example of which is given by the condition of the blood in cyanosis. It has been shown by Toeniessen, Gibson,[5] and others that in the intense cyanosis of congenital heart disease the hæmoglobin is increased in amount, and the red and white corpuscles are increased in number. The hæmoglobin may be increased up to 120 or 160 per cent of the normal amount, the red corpuscles up to 9,000,000, about double the normal number, and the white to 16,000 in each cubic millimetre of the blood. These changes may fairly be regarded as indicating a compensatory hypertrophy of the blood which enables it to carry more oxygen in face of the adverse conditions under which the circulation is carried on. Marie regards a similar increase in the number of the red corpuscles which occurs in those who live at high altitudes as a similar compensation.

The glandular organs of the body have also remarkable powers of development under the influence of appropriate stimuli—as, for example, the development of the mammary glands during pregnancy. Both secretory and excretory glands can undergo compensatory hypertrophy when a portion of the gland has been disabled by disease or design in such a manner as to throw an increased amount of work upon the remainder. The stimulus of working at higher pressure than normal here, as in the heart, leads to the development of a compensatory hypertrophy—such, for example, as is seen in one kidney after the removal or destruction by disease of the other.

It is important in all cases to ascertain the minute structure of organs which have thus developed a compensatory hypertrophy, for it is not necessarily a simple hyperplasia or exact reproduction of the normal structure.

In the kidney Lazarus-Barlow[6] states that there is hyperplasia of the cells and hypertrophy of the glomeruli, and quotes Eckhardt's statement that, if the hypertrophy is the result of congenital absence of one kidney, there is both hypertrophy and hyperplasia of both glomeruli and tubes: if the other kidney is destroyed or removed later in life, there is hypertrophy without hyperplasia of either glomeruli or tubes.

Owing to the special anatomical position and physiological properties of the thyroid gland it affords unusual facilities for observing some of the phenomena of compensatory hypertrophy. It is now a well-known fact, owing to the work of Horsley,[7] Halsted,[8] and Edmunds,[9] that when a portion of the gland is removed the remainder undergoes compensatory changes, in virtue of which it is enabled to supply enough secretion to prevent the appearance of the symptoms of athyroidism. The portion removed at one time may be one-half or even three-quarters of the whole gland, and Halsted has shown in the dog that successive portions, if removed on three or four separate occasions, may be excised until only one-eighth, or even one-sixteenth, of the original gland is left without symptoms of athyroidism being developed. Although these changes are accompanied by an increase in size, the hypertrophied remainder does not attain the size of the original gland, so that, weight for weight, it has to do more work than the original glandular tissue. Under these circumstances it is not so surprising that the structure of a piece of the gland which has undergone compensatory hypertrophy should differ somewhat from that of the normal gland. When sufficient hypertrophy has developed to supply as much secretion as is necessary, we do not find a simple hyperplasia of the original glandular tissue, but considerable change in the structure throughout. The alveoli, instead of being nearly circular, become irregular in outline. This change is due to the folding of the wall, which projects at different points into the lumen of the alveolus. In advanced hypertrophy the lumen may appear to be star shaped, or it may be almost obliterated by neighbouring folds of epithelium coming into contact. The appearance in places may thus closely resemble that of a racemose gland. The epithelial cells themselves are also altered. They are considerably increased in size, the ordinary low cubical epithelial cells being converted into tall columnar cells. The result of these two changes is that in equal areas the secretory cells are greatly increased both in numbers and size in the hypertrophied, as compared with the normal, gland. The colloid lying in the gland is diminished in amount, and appears to be more watery in consistence than normal. This change in consistence cannot, however, be accompanied by any deficiency in the active ingredients of the secretion, as it is able to prevent the onset of any symptoms of athyroidism. The appearances just described are evidently those of glandular tissue working at high pressure, and just able to supply the necessary amount of secretion without storing any in reserve in the alveoli as is usual in the normal gland.

In illustration of these changes I may refer to an experiment in which I removed the whole of the left lobe and the greater part of the right from a rhesus monkey. After the operation there was slight hebetude and harshness of the voice. No other symptoms developed, although the animal was kept under observation for fourteen months, and then was killed as it had contracted general tuberculosis. A piece of glandular tissue which had developed from the small portion of the right lobe left at the operation was found weighing 0.42 gram. Fig. 10 (p. 655) shows the changes in structure which had taken place. The folding of the epithelium giving a larger secretory surface is clearly seen, and in some of the smaller alveoli near the centre the consequent irregular shape of the lumen is evident. The epithelial cells have become columnar in type, while the colloid is scanty, and seems to be watery in consistence.

The remarkable results which have been shown by Dr. Rose Bradford to follow the excision of a portion of the kidney, and which were so well described by him in his Goulstonian Lectures last year, raise the question as to whether these changes in the structure of the thyroid are due entirely to the want of that body acting as a stimulus to the compensatory growth of the gland, or whether they are in any way due to some other local or general effect of the operation itself. If the compensating growth of the one lobe takes place simply in response to a call for more secretion to make good the loss of the other lobe, no hypertrophy should take place if this want is fully supplied from other sources. This point may be tested by removing one lobe of the gland and giving thyroid secretion continuously for some time, and then removing the other lobe for examination. If no changes indicating compensatory hypertrophy are found in the second lobe, it goes far to show that the hypertrophy develops simply as the result of an insufficient amount of thyroid secretion being present in the blood.

To test this point the right lobe and parathyroid were removed from a male bonnet monkey, For the next three weeks 12 minims of thyroid extract were given in the course of each week. Then, as the animal became rather emaciated, the quantity was reduced to half this amount for the next five weeks. Slight myxœdematous symptoms then appeared, but diminished on increasing the dose to 24 minims in the week; this was continued for two and a-half weeks, when the animal died from dysentery. The left lobe was found to be pale in colour, and only weighed 0.03 gram. No parathyroid was found attached to it. Microscopical sections showed no signs of compensatory hypertrophy even in its earliest stages.

In another experiment the right lobe and parathyroid were removed, and 1 minim per diem of thyroid extract was given by the mouth for sixteen weeks, and then the left lobe and parathyroid were removed. The right lobe with the parathyroid which was removed first weighed 0.3 gram, and was found to be abnormal in structure to start with, as it resembled a hypertrophied gland in structure.

Similar appearances were found by Halsted in the thyroid gland of several healthy dogs. The occasional occurrence of such changes in apparently healthy animals is at present difficult to explain. The interesting point in this case is that after the prolonged interval of sixteen weeks, during which the extract was given, the left lobe was fonnd to be paler in colour, and weighed 0.25 gram. The microscopical structure was normal, and showed no signs of commencing compensatory hypertrophy. If this lobe was originally in the same condition as the right the treatment seems to have restored it to a normal condition, and if not it any rate showed no signs of compensating hypertrophy. As far as they go these experiments tend to show that if the proper amount of secretion is supplied after removal of one lobe compensating changes do not take place in the other.

In connection with this part of the subject I have tried the effect of prolonged administration of thyroid extract upon the healthy thyroid gland. It is well known that parenchymatous goîtres often decrease in size when treated by thyroid extract. One explanation of this result is that a partial atrophy from disuse is established when the full amount of secretion is supplied from an external source. Two experiments have been made to ascertain if any atrophic changes could be induced in the healthy thyroid gland by supplying secretion ready made as it were and so doing away with the normal stimulus to secretion. The thymus atrophies after the first year of life from disuse, and the thyroid does so itself in old age, possibly for the same reason.

A small bonnet monkey was given 1 minim of thyroid extract per diem by the mouth for forty-four days, and then 3 minims for thirty-one days. The thyroid gland was then removed. It looked small and pale in colour, and with the two parathyroids weighed 0.11 gram. The microscopical appearance of the gland was normal, the epithelial cells and their nuclei being stained as usual, and the alveoli were well filled with secretion. In another similar experiment a male bonnet monkey was given 1 minim of thyroid extract for forty-four days, and 3 minims daily for forty-two days. The thyroid gland was then removed, and, with the parathyroids, weighed 0.14 gram. The nuclei were well stained, and the alveoli were well filled with secretion There was rather more fibrous tissue in the interalveolar space than is generally seen in the normal gland, but not a sufficiently well-marked increase to amount to a pathological change. The glands were certainly pale in colour and light in weight, and appeared to have undergone some diminution in size, but no evidence of atrophic changes was found in the microscopical specimens. Possibly if larger doses had been given for a longer period, some more definite change in the structure of the gland might have been found.

GOÎTRE.

The pathology of goître is a subject of much importance, for the disease is still endemic in this country in the valleys which drain the Pennine range of hills east and west from the Border as far south as the Peak in Derbyshire. Time will not permit me to discuss the question of the origin of endemic and sporadic goître, but I wish to draw attention to the interesting effects which have followed the treatment of simple parenchymatous goître by thyroid extract. At first sight such treatment may seem somewhat superfluous, but experience has shown, and to that of others I can add my own, that this method of treatment frequently leads to a notable diminution in the size of the goître. Adenomata, cystic adenomata, and other new growths are not influenced by the treatment, though the parenchymatous enlargement which often accompanies them may be diminished.

In the treatment of goître it is advisable to begin with 10 minims of liquor thyroidei each night; in the course of a few days, if the pulse is not accelerated beyond 90 or 100, this dose may be given twice, and at the end of a week thrice daily. If well borne, the dose may be still further increased. The treatment should be continued for three or four weeks to give it a fair trial, and longer if the goître continues to decrease in size. In several cases in which the general enlargement of the gland has been sufficient to cause dyspnœa by compressing the trachea, so that an operation had to be considered, the gland has been reduced to two thirds, or even one half, of its former size, and all the symptoms of pressure removed, and with them the necessity for an operation.

The beneficial effects of this treatment may be due to the iodine which is present in combination with a proteid in thyroid extract, for iodine has long been used with good results in the treatment of goitre. We have seen that the healthy thyroid of the monkey showed some signs of diminution in size under the same treatment, and I would suggest that the decrease in size in goître may be due to part of the enlarged gland passing into a resting condition, and consequent diminution in size if there is not an actual disuse atrophy as a result of the treatment.

EXOPHTHALMIC GOÎTRE.

Exophthalmic goître, with its many varying phrases, is a disease of great interest from several points of view. The various clinical types in which it comes before us, and the great difficulties in treatment it often presents renders a true solution of the problem of its pathology of the greatest importance.

The circulatory and nervous systems have each in turn been considered to be at fault, and it is only recently that attention has been drawn to the important part which is played by the thyroid gland in the pathology of the disease. The central and sympathetic nervous systems have been carefully examined in a considerable number of cases; in some they have been found quite normal, in others various lesions have been described, but these have varied in different cases, and on the whole appear to be rather secondary than primary in origin. I shall not describe the various lesions which have been found, as I have already elsewhere[10] discussed their relative importance. The lesions found in the thyroid gland are far more constant in character than any yet described in the nervous system, and it is the most obviously diseased organ to be found in a case of exophthalmic goître.

In nearly all cases of exophthalmic goître there is a palpable enlargement of the thyroid gland. On looking through my casebooks I find notes on 70 cases of exophthalmic goître which I have seen during the last nine years in the North of England, where the disease is not uncommon. Of these 8 were men and 62 women. All the 8 men had enlargement of the thyroid; of the 62 women all except 3 had enlarged thyroid glands. Taking both sexes together, we find that only 4.3 per cent. of these cases had no goître. It has been shown by Maude that in some cases enlargement of the gland may be present at one time and not at another, so that even in these 3 cases, which were only seen a few times, there may have been some enlargement at some other time during the course of the disease which had escaped observation. In any case, in 95 per cent. of my cases, there was either enlargement of of the gland at the time the case was seen, or there was a distinct history of enlargement at an earlier stage.

The enlargement of the thyroid gland in exophthalmic goître is as a rule uniform. In cases of long duration it may be irregular in shape and consistence owing to the development of fibrosis leading to the formation of irregular strands and masses of hard fibrous tissue in some parts of the gland. The veins on the surface are large and their walls are thin. In well-developed cases the goître is very vascular, and the arteries are dilated and tortuous, indicating that there was a liberal supply of blood during life. On section the cut surface presents a uniform appearance; it is lighter in colour and exudes less colloid than a normal gland.

The microscopical appearances have been very clearly described by Greenfield,[11] Stewart and Gibson,[12] Edmunds,[13] and Abram.[14] The general appearance is that of a gland in a state of great secretory activity, and has been aptly compared by Greenfield to that of the mammary gland during lactation. The number of alveoli is not only increased by the total increase in size of the gland, but in equal areas more alveoli are seen than in the normal gland. In many places the lumen of the alveolus is irregular in outline owing to the folds of the alveolar wall covered with epithelium projecting into it, so that, even when the gland is but slightly enlarged, there is a marked increase in the amount of the secretory epithelium. The lumen of the alveolus is in consequence diminished in size, in some cases to a considerable extent. The actively secreting part of the gland is thus increased at the expense of the storage room, which is so ample in the normal gland. The epithelium which lines the alveoli and covers these folds is changed in type, for the cells, instead of being flat or cubical, are tall and columnar. There is less secretion to be seen lying in the alveoli than in health. This diminution in quantity is partly due to the decrease in the amount of storage room. In addition to this, however, the alveoli are only partially filled, an appearance which suggests that there is a more rapid removal of the secretion from the gland than in health. The colloid is also more watery in consistence and it stains less deeply than normal. Eosin does not stain it at all, and Renant considers that it resembles fœtal colloid more nearly than that found in the healthy adult.

These changes are well shown in two specimens from cases which have been under my care. The section shown in Fig. 11 (p. 655) was taken from the right lobe of the thyroid gland of a married woman, aged 32, who had suffered from attacks of palpitation for several years. There had been enlargement of the thyroid gland for a year, exophthalmos for nine months, and progressive emaciation for eight months. The pulse varied from 120 to 140. As medical treatment failed to arrest the progress of the disease, the right lobe of the gland was removed by Mr. F. Page. Unfortunately the patient died suddenly an hour after the operation. This specimen shows the general appearance of the gland under a low power, the plication of the alveolar wall, and the diminution in the amount of secretion in the alveoli. Fig. 12 and Fig. 13 (p. 655), which were also photographed by Dr. R. A. Bolam, were taken from sections prepared by my research clerk, Mr. J. Muirhead.

The specimen shown in Fig. 12 was taken from a man, aged 30, who had suffered from acute exophthalmic goître for some four or five months. There had been goître, great nervousness, exophthalmos with retraction of the upper eyelids and von Graefe's sign, frequent pulse, rapid respiration, emaciation, sweating, and diarrhœa. In addition he had an attack of appendicitis, followed by the formation of a small abscess, which contributed to the early fatal termination.

This specimen shows an aveolus under a high power in which the changes described are well marked. There are several deep folds in the wall, the columnar type of the epithelium is clearly seen, and only a small amount of lightly stained secretion is lying in the irregularly shaped lumen.

From the above description and illustrations it will be seen that the structure of the gland in exophthalmic goître resembles that in compensatory hypertrophy in a remarkable manner. In both there is the increase in the secreting structures as shown by the plication of the alveolar wall, in both the epithelium is changed from a cubical into a columnar type, while the secretion stored in the alveoli is less in quantity and more watery in consistence. We know that the changes in compensatory hypertrophy are an indication of increased activity, so that it is fair to infer that the changes found in exophthalmic goître show that hypersecretion is going on. For additional reasons which we shall now consider the most rational explanation of the complex symptoms of this disease appears to be that they are due to an excessive formation and absorption of the secretion of the thyroid gland, which may or may not be altered in composition, and to the constant presence of this excess in the blood, and to its action upon the metabolism of the tissues generally, but more especially of the nerve centres in the medulla.

According to this view exophthalmic goître is the opposite condition to myxœdema, the former being the result of excess as the latter undoubtedly is of lack of thyroid secretion in the blood. This is supported by the strong contrast which is presented by the symptoms of the two diseases, a contrast which is nearly as marked as that between the small fibrous and atrophied gland of myxœdema and the enlarged hypertrophied gland of exophthalmic goître. Associated with the former we have increase of weight, stolidity, subnormal temperature, dryness of the skin due to diminution of cutaneous secretion, with increase of electrical resistance and slowing of the pulse, while with the latter we find emaciation, nervousness, normal or raised temperature, moist skin due to increase of secretion, with diminished electrical resistance and acceleration of the pulse. We may conveniently express the relationship of myxœdema to exophthalmic goître in their various degree of severity in the following diagramatic manner. If we take 100 as representing the normal amount of thyroid secretion in health, then 75 per cent. is probably about the amount of secretion formed in those cases of early thyroidal fibrosis with slight myxœdema to which I have already alluded. If half the glandular tissue is destroyed and only 50 per cent. of secretion is formed, the symptoms will be moderate. If 25 per cent. the symptoms will be well marked, and if none at all is found they will be severe. In the reverse way, in exophthalmic goître 125 per cent. of secretion would be present in a slight case, 150 per cent. in a moderate one, 175 per cent. in a well-marked one, and 200 per cent. in a severe case.

Percentage of Thyroid Secretion in the Blood.	Degree of Severity of the Symptoms.
200	Severe exophthalmic goître.
175	Well-marked exophthalmic goître.
150	Moderate goître.
125	Slight goître.
100	Health.
75	Slight myxœdema.
50	Moderate myxœdema.
25	Well-marked myxœdema
0	Severe myxœdema.

In myxœdema these percentages are in all probability approximately correct. In exophthalmic goître, however, we have no means of ascertaining how much secretion is actually formed. It may amount to much more than double the normal quantity in a severe case, so that these percentages are purely relative, and must not be taken to indicate the actual mount of secretion present in the blood.

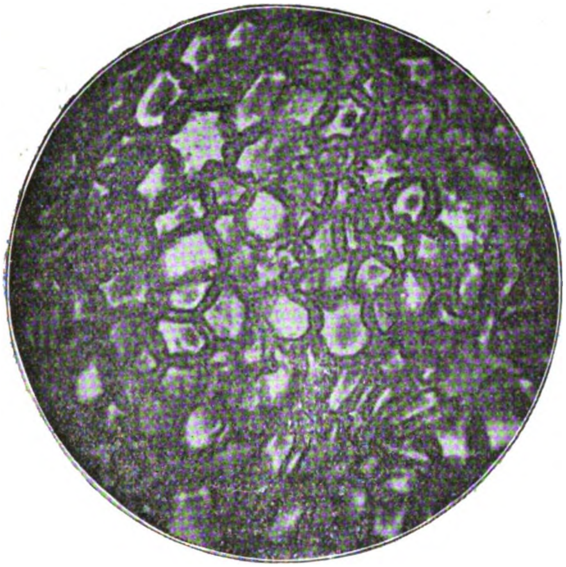

Fig. 10.—Compensatory hypertrophy of thyroid gland of monkey showing plication of alveolar wall, columnar epithelium, and scanty secretion in alveoli. Low power.

Another interesting point in the relationship between the two diseases is the repeatedly-observed fact that recovery from exophthalmic goître may be followed by myxœdema, while, as far as I am aware, exophthalmic goître has never been observed to develop in a patient already suffering from myxœdema. In some cases the symptoms of exophthalmic goître diminish as those of myxœdema develop, in others there is an interval of good health between the disappearance of the exophthalmic goître and the onset of the myxœdema. In a case recorded by Baldwin,[15] exophthalmic goître developed in 1887 and recovery took place the following year. Two years after, in 1890, myxœdema developed which three years later was successfully dealt with by the thyroid treatment. In a similar case recorded by Joffroy and Achard, and quoted by Moebius,[16] the exophthalmic goître existed for twenty-three years and then subsided, to be followed by myxœdema.

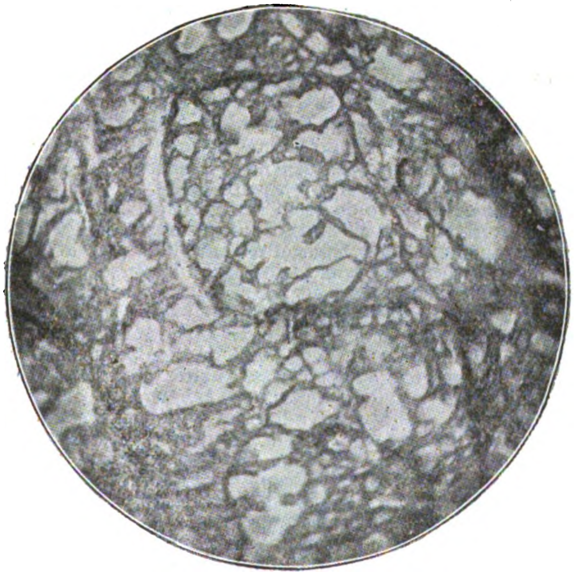

Fig. 11.—Thyroid gland in exophthalmic goître showing plication of alveolar wall and scanty secretion in alveoli. Low power.

After death the nervous system was found to be quite normal, and the thyroid gland in an advanced stage of atrophy. It thus seems evident that the development of thyroidal fibrosis in exophthalmic goître, by lessening the overactivity of the gland, leads to a subsidence of the symptoms, which, if the fibrosis and atrophy progress far enough, are replaced by those of myxœdema. Fig. 13 shows a section of the gland from an old-standing case of exophthalmic goître.

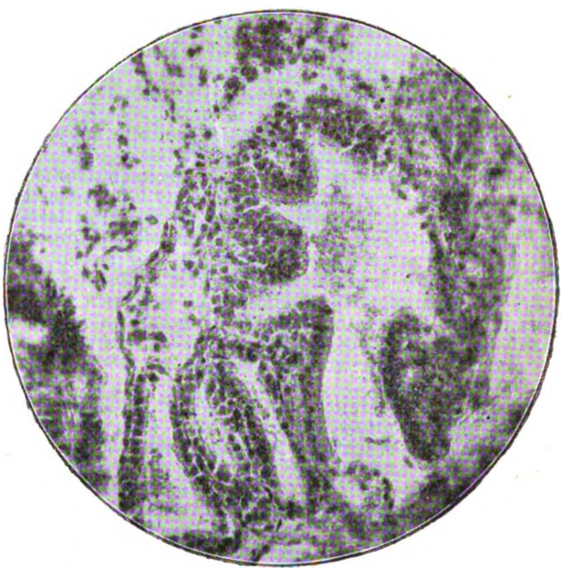

Fig. 12.—Thyroid gland in exophthalmic goître showing plication of alveolar wall, columnar epithelium, and scanty secretion in alveolus. High power.

In this the alveoli are much diminished in number, and between them there is a large amount of young cellular fibrous tissue. No symptoms of myxœdema were present at the time this patient died, but it is evident that if the fibrosis had advanced much further symptoms of myxœdema would have developed. While these changes are taking place in the gland, the symptoms may pass from those of severe exophthalmic goître through all the stages mentioned in the table to those of severe myxœdema.

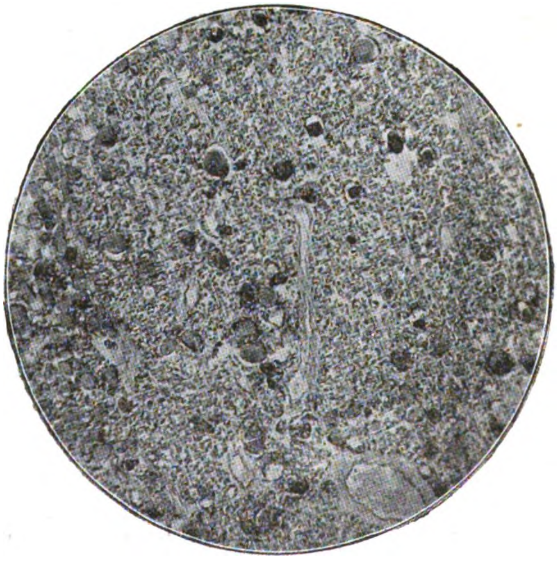

Fig. 13.—Exophthalmic goître of long duration showing few alveoli and much young cellular fibrous tissue.

One or two cases have been recorded in which the symptoms of myxœdema are said to have coexisted with those of exophthalmic goître. The reasons for asserting the coexistence of the two diseases in these cases seem to be rather slender, and to be largely founded on the presence of an irregular brawny swelling together with the symptoms of exophthalmic goître. I have occasionally seen a firm subcutaneous swelling in some parts of the body in exophthalmic goître, but it certainly was not myxœdematous. It is important to have such cases carefully reported, so that more information may be obtained on this point. The persistence for a time of a few symptoms of exophthalmic goître in a case of long duration which was passing into myxœdema is not unlikely, for the effects of the long-continued action of an excess of secretion on the nerve centres in the medulla, may easily remain for a time even after the thyroid had begun to atrophy, just as the effects of the action of lead or the toxins of diphtheria on the nervous system persist long after they have ceased to act.

The physiological effects of thyroid secretion in large doses are of special interest in this connection. Exophthalmic goître, though rare in the lower animals, has been observed in the horse, the cow, and the dog, so that if the right cause is brought into operation there should be no great difficulty in producing the disease in one of these animals. As we are ignorant of the causes of the change in structure and activity of the thyroid gland in exophthalmic goître, attempts can only be made to reproduce the symptoms we believe to be secondary to the excessive activity of the thyroid. This can be done either by grafting an excess of thyroid gland tissue into an animal, or more certainly by feeding it with large quantities of thyroid secretion, or by injecting it beneath the skin. Ballet and Enriquez,[17] by feeding dogs with the thyroid glands of sheep, produced distinctive symptoms in 3 out of 6 cases. These symptoms were elevation of temperature, tachycardia, tremors, conjunctivitis, emaciation, and in one animal quite distinct exophthalmos.

Still more important are the results which have been observed and follow large doses of thyroid extract in man. A condition of thyroidism seems to be more easily produced in those who have recovered from myxœdema than in those who have normal thyroid glands. It may develop rapidly if large doses are given, or more slowly if smaller, but still excessive doses are given for a long period. The earliest and most common symptom is increased frequency of the pulse. The patient complains of palpitation, and the heart beats violently 100, 120, or 130 times a minute. A fine tremor of the hands is often present, and the skin is flushed and moist. If the large doses are continued for some time emaciation also takes place.

In addition to these symptoms, elevation of temperature, restlessness, loss of sleep, polyuria, albuminuria, glycosuria, partial paraplegia, sensation of heat, and diarrhœa, all of which are occasional symptoms of exophthalmic goître, have been recorded. In one remarkable case Béclère[18] observed exophthalmos and rapid respiration in addition to other symptoms among those already mentioned in a woman who had suffered from myxœdema, and had taken 92 grams of thyroid gland in eleven days.

Some remarkable toxic symptoms have been observed in some cases by Horsley and Rodocanachi,[19] Paul,[20] and other surgeons, to follow partial removal of the enlarged thyroid gland. The most common symptoms which have been observed are fever, great frequency of the pulse (amounting to 150 or even 180 beats in the minute), rapid respiration, and great restlessness. In some of the cases the termination has been fatal at the end of a few days. As far I am aware, such symptoms have not been observed after a total thyroidectomy, so that they are not a result of the operation itself. The symptoms have occurred in cases of exophthalmic or soft parenchymatous goître after removal of one lobe of the enlarged gland, and especially when it had been much handled or squeezed during the operation. In several cases a profuse flow of thyroid secretion has been observed to take place after the operation from the divided isthmus into the wound. The symptoms are similar to those in acute cases of exophthalmic goître, and in thyroidism artificially producedin the manner already described, and are evidently due to absorption from the wound of thyroid secretion poured out from the cut surface of the gland, or a large quantity of it being squeezed during the operation into the lymphatics, and so into the blood stream.

This absorption of the secretion is a source of real danger in operations for goître, and especially in cases of exophthalmic goître. If, however, the gland be handled as little as possible during the operation, the cut surface is sealed by the cautery, and a free exit is provided for any secretion which may find its way into the wound, such symptoms will in all probability but seldom arise.

It is now well known that thyroid extract has a bad effect on patients with exophthalmic goître. Under its influence the pulse becomes more frequent and the other symptoms are increased. In some instances where other treatment had been followed by a marked improvement the administration of thyroid extract has been followed by a relapse into the former condition. In my opinion it should never be given in exophthalmic goître, as it is only adding fuel to the fire.

The results of surgical treatment of exophthalmic goître, undertaken with the object of reducing the amount of secreting tissue by removal of one lobe, or of inducing atrophy by ligature of some of the arteries which supply the gland, are of great interest. Unfortunately the operation itself, though sound in principle, is at present by no means free from risk. The steady improvement, however, which has resulted in many cases in which it has been successfully performed affords still further evidence that the symptoms of exophthalmic goître are due to the over-activity of the thyroid gland.

It is a fact of considerable interest that along with the enlargement of the thyroid gland in exophthalmic goître other ductless glands may be increased in size. The thymus gland is very often enlarged; in all the cases recently examined at St. Thomas's Hospital Dr. H. Mackenzie[21] has found the thymus persistent and enlarged, the microscopical structure being normal. Exophthalmic goître and acromegaly are sometimes found to occur together. I have recorded two examples of this and collected records of three others.[22] In acromegaly the pituitary gland is enlarged, and the enlargement seems to be analogous to that of the thyroid in exophthalmic goître, so that we have the remarkable fact that all these three ductless glands may be simultaneously enlarged. We know no explanation of this, but it suggests that possibly some common factor may be the cause of the enlargement. That some association exists between the thyroid and pituitary glands is further shown by the enlargement which takes place in the latter when the former is removed or disabled by disease.

These facts all indicate that in the treatment of exophthalmic goître attention should be directed to the thyroid gland. Time will not permit me to discuss the question of operative treatment, but there can be little doubt that removal of part of the enlarged gland is a rational method of treatment, and when the risks of the operation are diminished it should be more frequently employed in severe cases in which medical treatment has failed to do good. Of medical treatment much has been written. In my own cases inunction of red iodide of mercury ointment over the goître and belladonna given in large doses internally, so as to check the hypersecretion of the gland, have proved most serviceable. If the palpitation is excessive, convallaria has proved more useful than any other member of the same group of drugs. If there is great nervousness the bromides have done good. In only one case have I seen decidedly good effects from taking thymus. In this case 3 tablets of dried thymus were taken each day for nine months, for the last six and a-half of which the red iodide of mercury was used as well. As a result of this treatment the pulse-rate, which varied from 132 and 148, fell to 84, the thyroid gland, which had been considerably enlarged, returned to its normal size, the tremor became much less, and the exophthalmos was diminished.

In conclusion, Mr. President and gentlemen, allow me to thank you for the kind help you have given me by your attention in my endeavour to place before you some of the facts which help to explain the function of the thyroid gland and the practical uses to which such knowledge can be put in the treatment of disease, and I trust that the wishes of the founder of this lectureship have thus been carried out in the spirit, if not in the actual letter, of his bequest.

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THE ARRIS AND GALE LECTURES
ON
THE ANATOMY AND SURGERY OF THE PERITONEAL FOSSÆ.

Delivered at the Royal College of Surgeons of England,

BY B. G. A. MOYNIHAN, M.S.LOND., F.R.C.S.ENG.,
Assistant Surgeon, Leeds General Infirmary, etc.

LECTURE III.—THE INTERSIGMOID FOSSA: INTERSIGMOID HERNIA: HERNIA INTO THE FORAMEN OF WINSLOW.

THE INTERSIGMOID FOSSA.

THE first mention of this fossa is made by Hensing in the year 1742 in a Giessen dissertation. No subsequent reference to it is found until 1843. In this year Roser speaks of having seen the fossa very clearly defined on two occasions. In 1857 Engel describes a canal having a length of 3 cm. in infants, extending along the inner border of the left psoas muscle to the level of the bifurcation of the aorta, and in exceptional cases as far up as the pancreas. Treitz in 1857, Gruber in 1859, and Treves in his Hunterian Lectures, give good descriptions of the fossa. The latter author says: "The perfect fossa was met with in 52 per cent. of all the subjects. But if distinct funnel-shaped depression be added to the examples of the true fossa, then the percentage reaches 65. Jonnesco in 1890, and Brösike in 1892, gives accurate accounts of the fossa.

On drawing the sigmoid or omega loop upwards, the left or underlayer of the sigmoid meso-colon is exposed. On this surface can be seen the entrance to the intersigmoid fossa at the line of insertion of the meso-colon (Fig. 20). The fossa is present in rather over 70 per cent. of bodies examined. Its frequency depends, however, chiefly upon the ages of the subjects. In the fœtus of later months and in infants it is invariable. Its frequency becomes less with increasing years. As Treitz showed many years ago, in the aged there are never lacking signs of adhesion, crimping and thickening in the sigmoid meso-colon. Processes of this kind tend to obliterate the fossa, so that in subjects over 50 years of age the pouch is not infrequently wanting. The opening of the fossa is situated in the line of attachment of the sigmoid meso-colon at a point which is near the inner margin of the psoas. It lies over the common iliac artery close to, or in front of, its bifurcation.

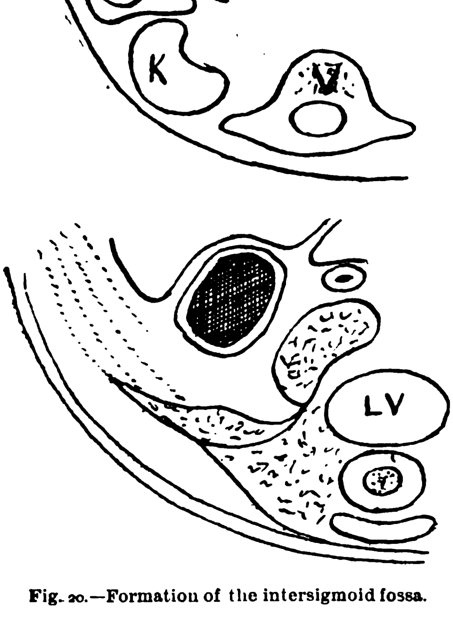

Fig. 20.—Formation of the intersigmoid fossa.

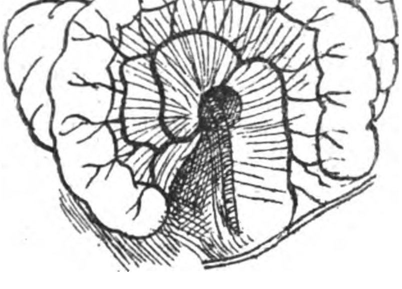

Fig. 21.—The intersigmoid fossa.

The orifice is generally round or oval, and is bounded in front by a fairly well-defined sharp edge of peritoneum. In this edge, or very close to it, may be seen the sigmoid vessels. This orifice leads to the intersigmoid fossa, which lies behind the sigmoid mesocolon and in front of the parietal peritoneum. The posterior wall of the fossa is adherent to the common iliac artery, and through the transparent wall can be seen the ureter as it crosses the vessel. The apex of the fossa extends upwards for a distance that varies very considerably. Sometimes there is merely a dimple representing the fossa; in other cases the depth may be 2 or 3 inches, or even more. I have on several occasions seen the fossa extend beyond the middle of the kidney, and this is usually the case in the fœtus. Engel, Brösite, and Rogie describe the pouch as extending as far up as the body of the pancreas. Most frequently the fossa in the adult is of the shape and size of an abbreviated glove finger for an average middle finger.

GENESIS OF THE FOSSA.

Several explanations have been suggested by Treitz, Luschka, Waldeyer, Treves, and others which I believe to be incorrect. It was first shown by Toldt that the disappearance of the mesentery of the descending colon was due to a process of "physiological adhesion" taking place between the left (or posterior) layer of the mesocolon and the parietal peritoneum (Fig. 20). This agglutination begins above, close to the splenic flexure, and spreads gradually downwards. Over the kidney, owing to the projection of this organ, the fusion is earlier and more complete. Along the inner edge of the kidney is a groove, and here, therefore, the opposing surfaces do not so readily come into contact, and adhesion is delayed. At the lower part of the groove union is never complete, and the gap that results is the intersigmoid fossa. On examining a fœtus of the seventh month, or a little younger, the descending mesocolon is obliterated. On pulling, even gently, on the colon, however, it will be found to strip up quite readily from the parietal peritoneum, until the primitive mesocolon is reproduced.

HERNIA INTO THE INTERSIGMOID FOSSA.

Treitz refers to two cases of intersigmoid hernia, one recorded by De Haen, and the other by Lawrence. The description and figures given by De Haen negative his case unconditionally. Lawrence in the fifth edition of his work says that hernia may occur in the mesentery of the sigmoid, but gives no case. A case which has been generally accepted is recorded by Jomini. I have elsewhere[1] analysed this case, which is probably one of gross congenital abnormality, with secondary adhesion processes. It cannot be allowed as a hernia of this class.

The only two authentic cases, so far as I am aware, are recorded—the first by Mr. F. S. Eve, and the second by Mr. McAdam Eccles. Mr. Eve's case was described and figured in the British Medical Journal of June, 1885, and I must refer the reader to this article for full particulars. In that case the most likely explanation of the history seems to me to be this. There had been originally a common mesentery for the jejunum, ileum, cæcum, and ascending colon. The splenic flexure and the descending colon became fixed in the usual manner by adhesion of the left or posterior layer of the original descending mesocolon to the parietal peritoneum of the posterior abdominal wall. As a result of peritoneal adhesion, most probably pathological, the cæcum and ascending colon had adhered to the descending colon, and the sigmoid and the united gut had been dragged over to the right, laying bare and rendering patent the orifice of the intersigmoid fossa.

Mr. McAdam Eccles's case occurred in 1895. I am indebted to him for a reprint of his account in the *St. Bartholomew's Hospital Reports*. The symptoms were those of acute intestinal obstruction. On opening the abdomen "a tightly constructing edge, which afterwards proved to be the margin of the aperture of the intersigmoid fossa," was revealed. A loop of gut 4 inches in length was nipped in the fossa, and about half an inch of it was gangrenous. The loop was removed and the ends stitched by Maunsell's method. The patient died of exhaustion. At the *post-mortem* examination there were signs of "some general peritonitis, most marked in the region of the sigmoid flexure, which was itself thrown over to the right side of the body."

These two cases illustrate as well as possible two quite opposite conditions. In the one there was congenital abnormality, gross in extent, and peritoneal adhesion, probably pathological and extrauterine, and in the other a peritoneal cavity in all respects normal.

Hernia into the Foramen of Winslow.

This form of hernia is very uncommon. I have been able to find only 8 cases recorded, 4 very imperfectly by Rokitansky, Treitz, Moir, and Novello, and 4 more fully by Blandin, Majoli, Elliot-Square, and Treves. After reading carefully the reports of these cases, it seems to me almost certain that in order to permit of the occurrence of this form of hernia, there must be some extreme congenital abnormality. In the carefully-recounted cases this has been observed. Thus in Treitz's case there was "a common mesentery for the intestine from the duodenum to the rectum." In the cases recorded by Elliot-Square and Treves there was an absence of the secondary fusion process between the ascending colon and the posterior abdominal wall. The causes leading to the formation of this form of hernia are probably:

1. A common mesentery for the whole intestine. Rogie has collected 53 examples of this, and he has not included all the cases.
2. Absence of the secondary fusion of the ascending colon to the posterior abdominal wall.
3. Abnormally large size of the foramen of Winslow.
4. Abnormal length of mesentery, and, consequently, undue mobility of the intestine.

In the absence of one or other of these abnormalities, the occurrence of the hernia may be considered almost a physical impossibility.

Symptoms.

On analysing the series of cases, it seems that a hernia into the foramen of Winslow on becoming strangulated presents a fairly well-defined group of symptoms. These are:

1. *Pain.*—This is generally epigastric. Square speaks of 'pain over the ensiform cartilage and immediately below it"; Treves, of "pain like cramp at and above the umbilicus"; Majoli, of "a painful rounded tumour" in the epigastrium.

2. *Tumour.* An epigastric tumour has usually been observed. Thus, Majoli says, "a persistent bulging of the anterior abdominal wall in the epigastric region" was present. Treves speaks of "a conspicuous bulging of the anterior abdominal wall in the epigastric and hypochondriac regions." Square says "the umbilicus was somewhat prominent."

3. *Percussion.*—A tumour when present is dull on light percussion, but deep percussion sounds a more resonant note.

It is interesting to note that there are no recorded symptoms of pressure on the hepatic artery, portal vein, or bile duct.

Reference.

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THE THERAPEUTICS OF HEAT AND LIGHT AND ELECTRIC HEAT AND LIGHT BATHS.

By H. LEWIS JONES, M.D., F.R.C.P.,
Medical Officer in Charge of the Electrical Department, St. Bartholomew's Hospital.

With the house-to-house distribution of electric currents from central supply stations the application of the current from the mains to purposes other than the lighting of rooms will gradually become more general. Especially does the use of the current as a source of heat recommend itself on the score of convenience and ease of application, and a number of appliances for adapting electric heating to medical practice have lately been contrived. In some of these appliances incandescent lamps are used as the thermal generators, and certain special advantages have been claimed for them on the ground that in an incandescent lamp the heat emitted is from a source at a very high temperature, and is radiated rather than conducted, and that the light which is also given out by the lamps may have a beneficial effect. Thus Winternitz[1] has a paper on this subject with the title of Electric Light Baths, and with figures of some of the apparatus he uses. These consist of wooden boxes or cabinets arranged for the reception of a patient's body or limbs and fitted within with incandescent electric lamps and reflectors. In them the patient can be subjected to the light (and the heat) given out by the lamps. The diseases in which the treatment is said to have been found useful are rheumatism, asthma, anæmia, neurasthenia, and obesity.

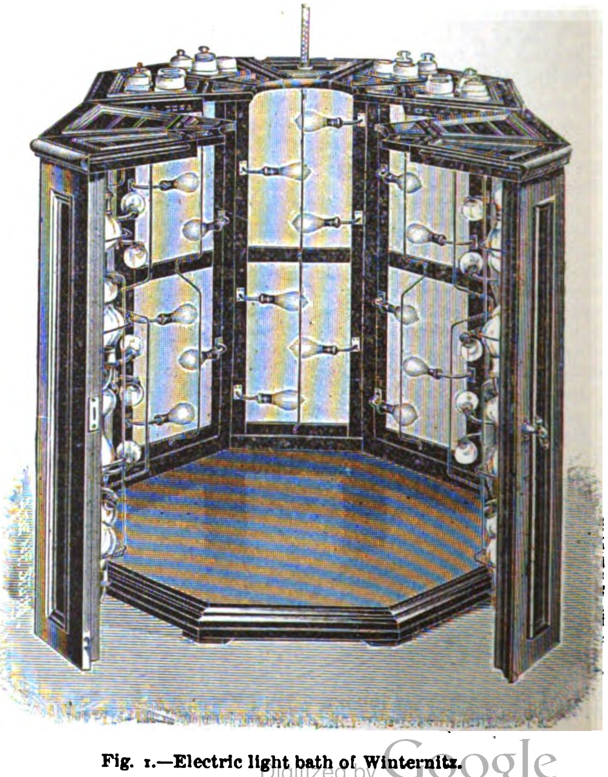

Fig. 1.—Electric light bath of Winternitz.

Winternitz states that the patients perspire profusely while in the cabinets, and the rapidity with which the perspiration sets in is specially insisted on by him. He says that after five minutes' exposure to the electric lamps profuse perspiration begins, although the temperature of the air in the cabinets is not more than 81° F.

Kellogg, of Battle Creek, U.S.A., made experiments with the same kind of apparatus in 1894, and arrived at the same results. He seems to have recognised that the effects noticed were mainly due to radiant heat, and compares the action of radiant heat from a source at a high temperature with that of the heat of lower grade which is employed in the hot room of a Turkish bath. Thus, he says the degree of perspiration obtained with an air temperature of 85° F. in the electric cabinet was equal to that produced in a Turkish bath at 106° F.

This comparison must, however, be imperfect in the absence of data as to the degree of humidity of the atmosphere surrounding the patients in the two cases. The atmosphere inside a small closed box is entirely unlike that of the hot room of a Turkish bath, which is properly ventilated and supplied with volumes of hot dry air. In spite of this objection, one may agree with the views of Kellogg and of Winternitz that the use of incandescent lamps as described does present certain advantages, namely, that the radiant heat penetrates the tissues more deeply, that the effect is more stimulant, and that perspiration is more quickly induced, also that the comparative coolness of the air about the patient is an advantage. It is uncertain whether the light emitted by the lamps plays an important part or not. Under the name of the "Dowsing radiant heat bath" an apparatus of a similar kind has lately been introduced in this country by a limited company, and establishments for the treatment of patients have been set up in London and in several provincial towns. The conditions which seem specially suited for treatment by radiant heat are just those which are relieved by the application of heat in other ways, such as rheumatic and gouty affections of the joints or muscles, sprains, myalgias, and other painful states. It does not appear at present that radiant heat has any special therapeutic properties which cannot be had from the older methods of applying warmth.

There is another contrivance for the production of heat electrically which is sometimes useful medically, and that is the electrotherm, which was noticed in the British Medical Journal for November 9th, 1895.

It consists of sheets of asbestos cloth interwoven with a fine wire, and enclosed in a cover forming a flexible pad about 14 inches square. When attached to a wall plug the current passes through the wire and warms it, the heat being regulated by a switch. For all conditions which can be relieved by the local application of heat it is admirable, and many such conditions will at once suggest themselves to the practitioner. In the relief of sciatica or lumbago I have found it useful. The electrotherm, with certain minor improvements, promises to be a useful domestic appliance as a foot warmer, or for any of the conditions now met by means of poultices, hot bottles, and the like. Its predominant merit consists in the fact that the turning of a switch is all that is needed to make it ready, and, when made ready, it goes on at full efficiency until switched off again. The defect of the electrotherm as at present made lies in the weakness of the fine wire with which it is fitted. This wire tends to become oxidised and brittle from the alternate heatings and coolings which it undergoes, and in time it breaks. If platinum wire were substituted for the german silver alloy now employed it would increase the first cost, but would give a durability which it lacks at present.

Another electrically-warmed appliance is the "Greville electrothermic generator."

It is heated by electricity. The heat is generated by electricity passing through wires, and not through lamps as in the radiant heat apparatus of Dowsing.

When their fragility is not an obstacle, incandescent lamps afford at once the cheapest and the most efficient of thermal generators. Messrs. Arnold and Sons are now working out with me the details of an electrically-heated operating table in which incandescent lamps supply the heat.

The body of the table has the form of an air chamber of metal, which may be divided into separate sections for convenience. Six or eight sixteen-candle power lamps enclosed in this chamber will rapidly raise an operating table to the required temperature, and half that number will then maintain the temperature at a proper level when the rest have been switched off. Wherever electric light circuits exist, this mode of warming an operating table would present decided advantages.

Some work has also been done upon the therapeutic effect of the light from arc lamps. For obtaining effects genuinely due to light as distinguished from radiant heat, the arc lamp should present great advantages by reason of the great intensity of its light, and of its richness in the more refrangible rays. The workmen in electric welding establishments, and in other places where they are brought into close proximity with arc lights, are apt to suffer severely from effects which very closely resemble those of sunburn, as experienced by mountaineers after exposure to the glare from sunlit snow. From investigations which have been made by several observers, it appears certain that these effects are really due to light and not to heat. It does not seem unreasonable to believe that good results might follow a systematic course of treatment by the light of the electric arc; and especial advantages might be expected from it in anæmia, because anæmia so commonly occurs in people who are more or less deprived of light.

Dr. Margaret Cleaves[2] has lately written upon the therapeutic action of arc lamps:

She describes a cabinet for the reception of the patient with two arc lamps arranged outside so as to shine into the cabinet through glass windows which may be open or closed. The patient is nude, wears dark spectacles, and reclines on a couch between the lamps. She has observed an increase in the hæmoglobin and the red blood corpuscles after two weeks' treatment. Her chief attention seems to have been given to cases with chronic pulmonary complaints, such as phthisis, asthma, and bronchitis, in which she obtained results which seemed to show an immediate beneficial action from the electric light. In a case of psoriasis and one of eczematous ulcer the effect was prompt and good. She also quotes from Koslovski,[3] La Touche, and Below. The former had his attention drawn to the subject from statements as to good effects noticed by workmen in electric welding works, and had obtained cures in 25 out of 38 cases, mostly neuralgia, sciatica, lumbago, and the like.

More extended observations are called for, and it is not unlikely that in time the arc lamp may take a place in therapeutics, particularly in the gloom and darkness of big cities.

Several independent writers have noted that the arc lamp, either by its light or by the emission of ozone or other vapours, has a very decided disinfecting or deodorising action upon noxious smells. Thus an arc lamp set up in a dark basement near offensive closets and latrines served to dissipate all bad odour completely from the place in which it was hung.

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[1] *Aertzliche Polytechnik*, October, 1898. [2] *New York Medical Journal*, January 28th, February 4th, 1899. [3] *Revue Internationale d'Electrothérapie*, April, May, 1896, and March, 1898.

THE JOINTS OF MAMMALS CONTRASTED WITH THOSE OF MAN.*

By F. G. PARSONS, F.R.C.S.,

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Lecture I.

In this lecture the temporo-maxillary joint, the clavicular articulations and the shoulder-joint were dealt with. In the temporo-maxillary the importance of the external lateral ligament was drawn attention to, and it was shown that the interarticular fibro-cartilage was absent in certain of the lower mammals. The varieties of the joint in the different orders of the Mammalia were explained. In the sterno-clavicular joint the presence and meaning of the meniscus were discussed, as well as the various modifications by which the clavicle is attached to the coracoid and acromial processes. In the shoulder-joint reasons were brought forward for believing that the middle gleno-humeral ligament is more or less well represented throughout the Mammalia, while the superior and inferior are peculiar to man. The coraco-humeral ligament is peculiar to the Primates.

Lecture II.

The elbow, wrist, and hip-joints were dealt with in the second lecture. In the elbow the contrast between the arrangement of bones and ligaments in animals which use their fore limbs for support and those which use them for other purposes was drawn attention to. The utility of the orbicular and the oblique humero-radial ligament in various orders was described. In the wrist-joint the arrangements were seen to be very varied. Sometimes a septum dividing the joint into radial and ulnar compartments was found; sometimes a triangular fibro-cartilage was present, though more often it was absent or merged in the lower part of the interosseous membrane; its uses and significance were discussed in some detail. In the hip the various thickenings of the capsule were shown to be characteristic of the Primates. The ligamentum teres was followed throughout the mammalian class, and its various modifications studied with a view to deciding its meaning. Several extracapsular connections of it were especially interesting.

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* Abstract of three lectures delivered before the Royal College of Surgeons of England.

LECTURE III.

This lecture was devoted to the consideration of the knee and ankle-joints. In the former the low attachment of the internal lateral ligament was shown to favour rotation, and in the bat's knee, which is a perfect hinge, this ligament is attached just below the joint surface. The semilunar cartilages were traced through the mammalian class, and in a generalised knee it was seen that the external one is attached posteriorly to the femur. In the lower Primates the external semilunar cartilage was shown to be circular, while in the bat both of them are suppressed. The variations of the ligamentum mucosum were detailed, and its power of dividing the knee into two or three separate cavities pointed out. In the ankle the anterior fasciculus of the external lateral ligament was noticed to be practically a human characteristic, while the serial homology between the middle fasciculus and the dorsal ligament of the carpus was traced. The modifications of the ligaments in the ruminant ankle to ensure stability were demonstrated, and it was shown that the marsupials possess a semilunar fibro-cartilage between the fibula and the astragalus, and that this is probably derived from the external lateral ligament.

These lectures will be published later in the *Journal of Anatomy and Physiology*.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

CINNAMON IN INFLUENZA.

THE newspapers give us a dismal daily death-roll from influenza. My experience during the past five years leads me to believe that no patient, if promptly and systematically treated, need be on the sick list, even after a most severe attack, for more than five or six days at the very outside. The theory on which that treatment is based limits of space preclude me from at present discussing.

The drug I employ is cinnamon, either in a strong decoction or in tabloid form. I order half an ounce of decoction of cinnamon, or two tabloids, every half hour for two hours; then the same dose to be continued every hour till the temperature falls to normal. After the temperature has become normal the same dose to be taken four times a day for four days; the patient not to leave the house for twenty-four hours after the temperature has become normal; the treatment must be commenced within twenty-four hours from the onset of the attack of influenza.

In February, 1892, I commenced treating influenza in the manner above described, and all the cases so treated were out and about in two or three days. It so happened that every case was seen within a few hours from the onset of the attack. In the end of 1892 and spring of 1893 I treated a second batch of cases, for the most part without any good results.

Carefully reviewing my results, I began to perceive that they seemed to stand in some direct relation to the period of the disease at which the treatment had been commenced. So I determined to take twenty-four hours from the onset of the disease as a time limit, and to treat no cases with cinnamon where this time limit was overpast. Since the spring of 1894 I have invariably observed this time limit and have treated a large number of cases, and in every case so treated within twenty-four hours from the onset the patient has returned to his place in society within five days from the commencement of treatment, and in no case have I been embarrassed by complications of any kind. Recently I have attended a young lady for influenza, who was treated with cinnamon, though she was rather over the time limit, and she did not go downstairs till the seventh day from the commencement of treatment, but as she is within three weeks of her first confinement I do not consider that she has done badly. In those cases where the treatment has been commenced within four or five hours from the onset of the attack I have found patients usually able to return to their duties within forty-eight hours.

The decoction is prepared by slowly boiling a pound of cinnamon *in vacuo* with a sufficiency of water till the fluid is reduced to a pint and a quarter, and can at present be obtained from Messrs. Woolley and Sons, Victoria Bridge, Manchester, or from Mr. Horsey, Chichester Street, Upper Westbourne Terrace, W. Messrs. Burroughs and Wellcome have also prepared a tabloid of cinnamon, two tabloids being equivalent to half an ounce of the decoction, and, as far as my experience at present goes, the tabloid seems to be quite as efficacious as the decoction.

My work during the past five years is summed up in the above bald statement. Should what I have said induce others to make a trial of my method of treating influenza, I trust they will do me the justice to follow the rules of practice that I have ventured to lay down.

JOSEPH CARNE ROSS, M.D.Edin.,
Manchester. Physician to Ancoats Hospital.

OBSTINATE HICCOUGH.

I AM glad to learn the effect of nitroglycerine in these troublesome cases as related by Mr. R. W. S. Christmas, and will give it a trial at the next opportunity.

In 1892 I had under my care a man with catarrhal jaundice whose persistent hiccough resisted treatment which extended almost through the gamut of the *Pharmacopœia*. Even inhalation of chloroform only checked it when anæsthesia was complete, the spasm of the diaphragm returning unabated at the same time as the conjunctival reflex, and the patient finally died of exhaustion after a week of extreme suffering.

Last month Mrs. R., aged 60, during a severe attack of facial erysipelas commenced a hiccough so violent that the sound penetrated to all parts of the house, and as it persisted in spite of all ordinary remedies (including subcutaneous injections of morphine and atropine, and blisters over the epigastrium and phrenic nerves), and quite prevented sleep, I was forced to give a very gloomy prognosis. On the morning of the fourth day, finding the pulse almost imperceptible, I administered by the mouth half a drachm of pure ether in a little water as a cardiac stimulant, and was delighted to find the hiccough diminish almost immediately: two similar doses in the next two hours cured it completely, and she made an excellent recovery. Both nitroglycerine and ether are classed as antispasmodics, but that their effect is not due to their depressant action on the respiratory centres is apparent from the failure of the bromides, chloral, and other similar drugs to diminish the spasm. May not the singultus, then, be Nature's demand on the vasomotor centre for an increased visceral circulation? If this is the case we err by the administration of nervo-muscular sedatives, and should refrain from giving morphine.

Cricklewood. STAMFORD G. FELCE, M.D.

DISPLACED LEFT MIDDLE TURBINATE WHICH OBSTRUCTED THE NASAL PASSAGE FOR TEN YEARS.

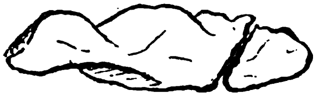
THE patient, aged 29, consulted me in February, 1898, for persistent obstruction of the left nostril. He attributed his malady to blows on the nose received when playing football in boyhood.

In 1888 a surgeon removed some polypi from the left nostril with forceps. The operation was exceedingly painful, and the bleeding was profuse and protracted. His condition was not materially improved by this procedure. Subsequently another surgeon removed several polypi with the snare, and applied the electric cautery to the parts, affording some relief.

I found the obstruction of the left nasal passage to be almost complete. The anterior end of the lower turbinated body was readily seen, but no trace of the middle turbinate was visible, whilst over and about its position anteriorly the external wall was covered by a sessile myxomatous-looking growth. Further back this tissue was pedunculated, and presented the appearance of the simple mucous polypus. By post-rhinoscopic examination no polypi were observed, but what seemed to be the posterior end of the middle turbinate appeared to be much hypertrophied. Concluding that the anterior end of this body had been wrenched off at the first operation, I proceeded to remove the polypoidal tissue within reach by means of the cold snare.

At the patient's next visit, on looking into the passage I observed a grey mass deep in the fossa, extending from the floor upwards and backwards. It felt dense to the probe, which could be passed on either side of it, and firmly fixed in the position, being partly embedded in the lower turbinal tissue, from which it could be readily distinguished, however, by its pale grey colour. I endeavoured to pass the snare round it from below, but without success; and accordingly I divided it with a pair of nasal scissors, when the snare was readily passed upwards and backwards. Both portions were then easily removed, and it was obvious that at some time the turbinate had been all but completely detached. By its removal the passage was at once rendered patent, and the remaining myxomatous tissue was treated in the usual way. No polypi could be seen in the right nasal passage, but there was a moderate degree of chronic hypertrophic rhinitis.

The parts which had been removed when placed in position measured 4 cm. by 1 cm. at the broadest point, and weighed 1.3 gram. The size and outline are fairly represented in the accompanying sketch. The internal surface was slightly convex, whilst the external was somewhat concave. Except for being rather pale it appeared to be little altered from what might be met with in a recently-removed specimen, and there was no trace of myxomatous thickening of the mucous tissues.



Outline drawing of specimen.

This case is instructive as showing the mischief that may result from the blind use of forceps in the removal of nasal polypi.

ROBERT FULLERTON, M.D.,
Surgeon to the Outdoor Department for Diseases of Throat and Nose, Glasgow Royal Infirmary;
Lecturer on Diseases of Throat and Nose, St. Mungo's College; etc.

THREATENED DEATH UNDER CHLOROFORM.

THE case of death under chloroform reported by Mr. C. W. Cathcart resembles in so many points a case which I had at St. Paul's Eye and Ear Hospital, that I think the details of it will prove of sufficient interest to report.

My patient was also young, a boy, aged 7, and had been specially prepared for chloroform. The operation was for squint, and everything went on as usual until the second eye was being operated upon. He appeared to wince when the conjunctiva was pinched by the forceps, showing that he had not entirely lost sensibility. The breathing then suddenly became somewhat irregular, and the pulse could not be felt at either wrist. The face was pale but the breathing went on in an irregular fashion. The heart beat could be heard very faintly with the stethoscope. The operation was at once stopped and the head thrown over the end of the couch, the tongue pulled forward, and artificial respiration commenced. In addition, a piece of lint soaked in nitrite of amyl was held continuously over the mouth and nostrils. It was some time before a flicker of pulse was felt but it gradually became stronger. The breathing did not improve for some time, and he remained very pale. Complete recovery took place, however, and we attributed it entirely to the effect of artificial respiration combined with the nitrite of amyl.

Like Mr. Cathcart's case, this is undoubtedly one where the heart failed before the respiration, and I am certain that we owe the successful result of our case to the nitrite of amyl.

THOMAS STEVENSON, M.B., C.M.Edin.,
Hon. Assistant Surgeon, St. Paul's Eye and Ear Hospital.
Liverpool.

AN OPEN SAFETY-PIN REMOVED FROM A CHILD'S ŒSOPHAGUS.

ON February 16th, 1899, Mrs. V. brought her baby to me, stating that it had swallowed a brass safety-pin. On passing my finger down the œsophagus I could feel the head of the pin. I seized it with a long pair of curved forceps, and attempted to extract it, but I was unable to move it. Holding the pin tightly grasped by the forceps in the right hand, I again passed my left forefinger down the gullet, and now discovered that the pin was open, and that the point was buried in its wall. I then pushed the pin down towards the stomach till I had disengaged the point. Again hooking it up I caught the point on the tip of my forefinger, and then drew out pin and finger together. I imagine that the coughing or retching excited by the pin had driven its point through the mucous membrane of the gullet.

Clifton. REUELL ATKINSON, M.D.Dunelm.

REPORTS ON MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

ST. MARY HOSPITAL, LONDON.

TRAUMATIC ANEURYSM OF THE SCIATIC ARTERY.

(Under the care of Mr. A. Q. SILCOCK.)

[From notes by W. C. WOOD, M.D.Lond., House-Surgeon.]

REBECCA P., aged 54, was admitted to the hospital on September 23rd, 1898, with a pulsating tumour of the right buttock.

History of Illness.—About six months previously she fell on the fender, injuring her right buttock. She felt a good deal of pain at the time in the neighbourhood of the tuber ischii; this has since been almost constant and of increasing severity; she has been unable to walk or sit with comfort, and for the last ten days to walk at all; when in bed she cannot lie on her right side. A swelling was noticed in the buttock about six weeks before admission, and this has been gradually increasing in size. She has had rheumatic fever, but no other serious illness.

Condition on Admission.—She is a well-nourished woman, obviously suffering pain. She lies on her left side with the right leg moderately flexed. The pain is chiefly referred to the right buttock, but it also extends down the back of the thigh. Pulsation is plainly visible through the clothes at some distance from the bed. The buttock is much enlarged and pulsating, the pulsation being most marked a little above the gluteal fold. The superficial veins are prominent over the swelling. A forcible throbbing is felt over a wide area, extending inwards to about 2 inches from the middle line, downwards to the gluteal fold, upwards to the level of the posterior superior iliac spine, and forwards to the posterior edge of the great trochanter. By steady compression the tumour can be diminished in size, but it quickly regains its normal dimensions on removal of the pressure. A loud systolic *bruit* is heard over the whole area of pulsation, and over its posterior part there is also a diastolic *bruit*. The tumour is very tender to the touch. There is some numbness of the toes, but no complete anæsthesia; a tendency to foot-drop, but no paralysis.

Rectal and vaginal examination revealed nothing abnormal in the pelvis, and no cardiac disease or signs of arterial degeneration were found.

Operation.—On September 30th ether was given, and an oblique incision about 8 inches in length was made over the swelling parallel with the fibres of the gluteus maximus. The muscular fibres were separated, exposing the sac. It was estimated to hold about 14 ounces of blood, its shape was fusiform, and it extended from the sciatic notch downwards behind the great trochanter to beyond the gluteal fold. It was separated from the surrounding structures without difficulty. The separation was nearly completed when the thin-walled sac ruptured, and half a pint or more of blood escaped. Mr. Silcock at once grasped the tumour with his right hand, and thereby controlled the hæmorrhage to a considerable degree; the pedicle was then clamped, and the bleeding arrested. The sac was freely opened, and its cavity stuffed with cyanide gauze. The upper end of the sac having been dissected out, a stout silk ligature was tied around the feeding artery and the mouth of the sac. The ligature unfortunately included the great sciatic nerve, which, being firmly imbedded in the sac wall, and actually forming part of it, could not be freed. The sac was now dissected away from above downwards as far as possible, and its efferent artery ligatured; it was then cut away. The wound was irrigated with perchloride of mercury lotion, and sewn up with silk sutures, a large drainage tube being inserted. A cyanide dressing was applied and firmly bandaged. The patient lost probably about a pint of blood during the operation, and the pulse, which was not strong before, became very weak. A pint of water was injected *per rectum*, but it was mostly returned. Morphine was given to relieve the pain. She was sick several times, and the pulse remained uncountable at the wrist till 10 P.M., when another pint of water was injected. This was retained, and in an hour's time her condition had markedly improved, and the pulse could be easily counted: its rate was 130 per minute. Mr. Silcock was assisted by Mr. Collier during the operation.

On October 1st she was distinctly better; the temperature had risen from 97° to normal; the pulse was 120, and fuller.

On October 3rd the pulse was 116; all sickness had ceased. She had only slight pain. There was found anæsthesia of the limb below the knee, except along the inner side of the leg and foot; the foot was dropped and powerless, and considerable œdema was present.

On October 12th all stitches were removed. The œdema of the foot and lower part of the leg was still persisting; the foot and toes were quite powerless; on flexing the hip the knee was passively bent, but it could not be moved voluntarily. The muscles were soft and flabby.

On October 18th the patient complained of pain and formication in the sole of the foot.

On November 6th the wound had healed. The œdema of the foot was still present. The calf muscles were wasted. The inner hamstrings could be contracted and the knee actively flexed, but the biceps did not contract. The limb was kept flexed at the knee, as some pain was caused by its complete extension.

On December 13th the patient was discharged in excellent health, and able to get about on crutches. There was, however, complete motor paralysis of the foot and biceps; anæsthesia over the whole of the sole of the foot and rather more than the outer half of the dorsum, including the four outer toes, extending up the outer side of leg to just below the knee, reaching to the middle line posteriorly, and rather to the outside of the middle line anteriorly; and œdema of the dorsum of the foot, and of the leg, extending nearly to the knee.

The aneurysm was examined by Dr. Bill, curator of the museum, who reports as follows: In shape the sac is a short oval, measuring 3¾ inches by 2¼ inches. The afferent artery enters on the deep surface at the upper end of the sac. The efferent artery leaves on the deep surface about midway between the upper and lower ends; it is completely fused with the sac as far as its lower end. The great sciatic nerve is represented by one stout strand of nerve-bundles about the size of an average median nerve on the deep surface of the sac, and on the superficial surface by two thin ribbons in which the nerve bundles are much separated. They are all intimately connected with the sac.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

T. BRYANT, M.Ch., F.R.C.S., President, in the Chair.

Tuesday, March 14th, 1899.

THE MORBID ANATOMY AND PATHOLOGY OF DR. BRADSHAW'S CASE OF MYELOPATHIC ALBUMOSURIA.

DRS. T. R. BRADSHAW and W. B. WARRINGTON contributed this paper. An account of the clinical features of the case was read by Dr. Bradshaw before the Royal Medical and Chirurgical Society in April, 1898, while the patient was alive. Large quantities of albumose were present in the urine for more than a year, and some months before the close indications of softening and fragility of the ribs, sternum, and vertebræ appeared. The diagnosis made was multiple myeloma, a condition which had been found at the necropsy of former cases of albumosuria, but which had never before been recognised during life. Death took place in August, 1898, and the diagnosis was confirmed by the *post-mortem* examination. The affected bones were brittle, their deeper parts being occupied by a soft round-celled mass, and the osseous tissue reduced to a mere shell. The kidneys were the seat of chronic interstitial nephritis of a moderate degree. In its clinical history and morbid anatomy this case differed materially from those of osteomalacia, but it corresponded with the description of former cases of multiple myeloma. Only six well-attested cases of albumosuria with bone disease had been published when Dr. Bradshaw read his first paper on the present case. In some of them the bone disease had been altogether overlooked during life, and in the others it had been considered to be osteomalacia. This was the first case of albumosuria in which the diagnosis of multiple myeloma had been made and confirmed at the necropsy. The authors reviewed the six previous cases, and pointed out their general similarity to the present one. They laid special stress on the importance of the remarkable reactions of the urine in these cases, and expressed their opinion that the cases of multiple myeloma with albumosuria were of an entirely different nature from those in which it did not occur. For cases of albumosuria with new formations in the marrow they adopted the term "myelopathic albumosuria."

Dr. PARKES WEBER remarked that the main features of this case corresponded very closely with those of a case recently published by him in the *Journal of Pathology and Bacteriology* as one of malignant adenomatosis. In each case the patient was an old man, showing increasing kyphosis that suggested either spinal caries, malignant disease of the vertebræ, or progressive spondylitis deformans. In each case there was progressive debility with pain in the bones. In his case at the time of death, as in most of those on record, there was pneumonia, and in Dr. Bradshaw's case there had been pneumonia not long before the fatal termination. If albumosuria were present in his case it had been overlooked, but a note was made in the report that the urine contained albumen. In some of the cases recorded albumose appeared in the urine during the later stages only of the disease. In his case the lymphatic glands were also affected by the growth. Deposits of calcium phosphate were present in the kidney, but on this fact he did not wish to lay much stress, as they were in the neighbourhood of small adenomatous growths—a not uncommon association. He considered that the most probable explanation of the albumose in the urine was that it was formed by the cells of the new growth, for as Senator had pointed out it was to be found in the blood, and from the blood it was excreted by the kidneys. Why albumosuria should be absent when lymphomatous growths occurred in other situations he was unable to explain.

Dr. A. T. H. WATERS, who saw Dr. Bradshaw's case during its progress, commented on the apparent rarity of the disease, but thought other cases must have escaped recognition. The question he would like to have settled beyond doubt was whether albumosuria was indicative of a specific disease—of a definite bone disease. He suggested that in all surgical bone diseases this substance should be searched for, and particularly that cases of bone disease occurring in the workhouse infirmaries should be investigated with this condition in view.

Dr. BRADSHAW, in reply, stated that hitherto the essential connection between albumosuria and this particular bone disease had not been recognised in this country. That Dr. Parkes Weber had really overlooked the presence of albumosuria in his case was by no means certain for in six alone of sixteen other cases was it found; indeed, it must not be assumed that albumosuria was an invariable accompaniment of the disease. He believed that lymphomatous growths elsewhere than in the bones never caused albumosuria, and even when they occurred in the bones it might be that they were not the real cause of the albumosuria. He referred to cases that had been described by a surgeon as quite similar to his own, which had been diagnosed as senile caries. He emphasised the fact that no circumscribed tumour was found in his case; in this respect it differed from the others recorded.

CLINICAL SOCIETY OF LONDON.

JOHN LANGTON, F.R.C.S., President, in the Chair.

Friday, March 10th, 1899.

HYDATID CYSTS IN UPPER LOBE OF RIGHT LUNG AND LIVER SUCCESSFULLY REMOVED.

MR. H. BETHAM ROBINSON described this case. The patient, a boy aged 6, was admitted into St. Thomas's Hospital on June 7th, 1898. For some time he had had a cough. About three years before an abdominal tumour, the size of a marble, had been first noticed. This had gradually increased without pain. On examination there was a firm rounded cystic swelling in the right hypochondriac and lumbar regions, reaching almost to the middle line and below the level of the umbilicus. There was a rounded nodular projection on its inner side just under the umbilicus. The liver dulness began at the seventh rib in the nipple line, and was continued down over the tumour. The swelling moved with respiration, and could be grasped between the hands placed in front and behind, and shifted out of the line. The urine was slightly albuminous. His chest on examination bulged at the upper part of the right side in front. The percussion note was dull down to the third rib and high in the axilla and at the apex of the lung posteriorly. Over the dull area in front the breathing was tubular and vocal resonance increased, but behind all sounds were diminished. No crepitations were elicited on coughing. There was no elevation of temperature, so the physical signs pointed to a hydatid in the lung. On June 22nd the liver hydatid was operated on by an incision in the linea semilunaris. A cyst was seen springing from the inferior surface of the liver, having the gall bladder on its upper surface and left margin. The cyst, having been pushed into the wound, was incised, and the finger was inserted and hooked the cyst well out of the abdominal wound, preventing any contamination of the peritoneum. The hydatid membrane was removed with forceps after about a pint of clear fluid had escaped. The fibrous wall was not interfered with, the cavity was washed out with 1 in 1000 perchloride of mercury solution, and the opening almost sutured up with catgut except for a hole for a gauze drain which was brought out at the abdominal wound. By packing, the abdominal and cyst wounds were kept as closely apposed as possible. The cyst was not fixed to the abdominal wall. The subsequent progress was uneventful except that the discharge became purulent on the tenth day with a slight rise of temperature. In spite of this the wound was soundly healed at the end of a month and tucked up under the liver. During this time the lung signs underwent no change, but the liver still remained pushed down. A skiagram made by Dr. Barry Blacker showed opacity in the upper lobe of the right lung, so dense as to obliterate the rib shadows. On August 15th the lung was operated on. The pectoralis major being split, an inch and a half of the second rib was resected, and the pleural layers were found to be adherent. Turning the boy on his right side to allow free exit for the fluid, and prevent possible flooding of his bronchial tubes on the collapse of the cyst, a hollow needle was introduced, and a drop of fluid appeared when the needle was about a quarter of an inch in. A free incision was made, and several ounces of hydatid fluid gushed out. The finger was introduced, and the cyst membrane removed whole with the aid of forceps. The cyst was about the size of an orange, without any daughter cysts. There was fortunately no communication of the fibrous sac with the larger tubes, for there was no marked coughing nor bloody expectoration after the incision, nor any subsequent physical signs. A large india-rubber drain was introduced. For a few days he had a high temperature, and signs of localised pneumonia, but without pleuritic effusion. After ten days his temperature was only sightly raised at night; the tube was removed, and a gauze drain substituted. At each daily dressing the boy was turned on his face to thoroughly drain the cavity, which was then insufflated with equal parts of aristol and boric acid. On September 7th (the twenty-second day) the wound was quite superficial, and the lung was resonant all over, air entering well right down to the base; respiration was in places tubular, but there were no adventitious sounds. On the 9th he got up, and on the 19th, when the wound was quite healed, the lung gave no evidence of any cavity. He went to a convalescent home on September 22nd.

Dr. **KINGSTON FOWLER** asked if the boy had continued in good health. Two patients recently operated upon successfully for similar disease had both subsequently developed pulmonary tuberculosis.

Mr. **ROBINSON**, in reply, said that until two months ago, when he was last seen, the boy had remained quite well.

PANCREATIC CYST TREATED BY INCISION AND DRAINAGE.

Mr. **A. E. BARKER** related the case of a boy, aged 14, admitted on July 12th, 1897. He had had a fall some weeks previously, striking his left side. He was rendered unconscious, and remained so for some hours, and for a fortnight after he was stated to have been delirious, also to have spit blood several times. A large swelling occupied the left side of the abdomen throughout the left hypochondriac, lumbar, and left half of the epigastric and umbilical region. There was also slight fulness in the right halves of the corresponding regions, especially the umbilical. The swelling came from beneath the left costal margin, which was distinctly bulged. The tumour was dull on percussion, and on the left this dulness was continuous with that of the spleen. The tumour moved with respiration. There was apparently a small amount of fluid in the peritoneum. Considering it to be a pancreatic cyst, he, on July 15th, 1897, opened the abdomen by a 3-inch vertical incision through the left rectus muscle close below the ribs. On opening the peritoneum the stomach was found stretched over the tumour, and the transverse colon lay below it. Between the two there was a small space through which the cyst was tapped, giving issue to 3 or 4 pints of fluid, at first clear and light coloured, but becoming slightly brown towards the end. He sutured the lips of the cyst to the edges of the wound, and left in an iodoform gauze drain. The patient did well, and left the hospital on August 15th with the wound quite healed. There had been no return of the trouble. A careful analysis by Dr. Nabarro and Dr. Sidney Martin gave the following results: The fluid was of a brownish-yellow colour, specific gravity 1010, with a sweet aromatic smell, not urinous, reaction alkaline, no sugar or bile, but a trace of peptone. On boiling it gave one-half (3 per cent.) albumen. Total solids 1.63 per cent.; ash 0.81 per cent.; total proteids 0.66 per cent. The fluid displayed marked amylolytic action, but no fat splitting or protolytic action. The paper contained a full account of the literature of the subject. Antiseptic drainage was, he was convinced, the proper treatment, not extirpation. The cysts presented in different places, but the most common variety came forward between the colon and the stomach; the contents varied much in different cases.

Mr. **ALBAN DORAN** said that the paper clinched the question as to the proper surgical treatment of these cases. In reference to diagnosis, it must be remembered that a broad based cyst, if big, although fixed to bone or an internal abdominal organ, could yet be moved laterally in almost all cases if grasped from the front of the abdomen. The best treatment for these pancreatic cysts was undoubtedly incision and drainage; but it was not always possible to diagnose the case until nearly the end of the operation, and several surgeons had acknowledged that if they had known beforehand whence the cyst sprang they would not have operated upon it, so great was the risk of removal. Krönlein had successfully removed a cyst, but the patient died on the tenth day, and at the necropsy the transverse colon was found to have sloughed. Poncet, who had operated on several cases, attacked an almost sessile cyst in which he left seven clamp and pressure forceps sticking out of the wound. When one of them was removed hæmorrhage followed, and the forceps had to be hastily reapplied, though it was impossible to see to what it was applied. The patient happily recovered. Eve, of Nashville, removed a cyst attached to the tail of the pancreas, a comparatively easy situation for such removal, but the mesocolon and transverse colon were torn and had to be sewn up. That patient also recovered. The splenic artery and vein, one or both, had had to be tied in cases of removal, which was, indeed, a most risky procedure. Evidently incision with drainage, which gave such good results, was the right surgical treatment. This was shown by the author's case, by his own (the speaker's) cases, and by three cases reported by Mr. Bilton Pollard in the British Medical Journal of March 11th. This was the best treatment, indeed, as shown by the collective experience of many surgeons.

The **President** concurred in the view that drainage was the best treatment. A gentleman had an enormous tumour over the pancreas, in which fluctuation could be detected. The case had been supposed to be one of malignant disease. He incised the abdomen, and went through the gastro-splenic omentum, giving exit to 9½ pints of old blood. The patient did well, but three years afterwards, when he was in Dublin, he died; and at the *post-mortem* examination it was found that the portal vein had become so entangled in the scar tissue that there was practically no circulation through the hepatic area.

Mr. **Arbuthnot Lane** had had 3 cases, 2 of which he incised from the front, 1 from the back. In one case the cyst was multilocular, being composed of three cysts. It was, however, successfully dealt with.

Mr. **Barker**, in reply, said that his patient was delirious, which was a suggestive fact. Several cases of multilocular cysts had been recorded, but a successful result was the exception in operations on such cases.

Removal of a Large Malignant Frontal Tumour with Underlying Bone.

Mr. **Battle** gave details of this case. The patient, a married woman, aged 35, was admitted to the Royal Free Hospital on June 21st, 1898. Eight years before a small lump had been noticed in the scalp, a little to the left of the middle line behind the hair of the frontal region. Several operations had been performed for its removal, and the present tumour had been growing for two years. In some months there had been intermittent hæmorrhage from it, and her general health had greatly deteriorated. A large irregular nodular mass with overhanging edges presented in the frontal region. This measured about 3 by 4½ ins., and projected 3½ ins. from the level of the scalp. Vascular and foul smelling it presented a formidable aspect, whilst the removal of the dressings caused troublesome bleeding, which required steady pressure to arrest it. Firmly attached to the bone, it did not pulsate and was not accompanied with glandular enlargement. On January 27th, after the application of an elastic bandage circularly to the head to control bleeding from superficial vessels, the tumour was removed from the surface of the bone, and pads applied to arrest the bleeding which ensued from the skull where the growth had invaded it. This pressure was removed next day. On February 7th the bone affected was removed; a trephine was first applied, and from the opening thus made a circular saw worked by a hand motor was guided so as to divide the bone above and below, after which a few strokes of the chisel were sufficient to free the implicated portion. The growth had not invaded the dura mater, but presented a series of closely set elevations with flattened tops where it had completely eaten away the skull. Very little hæmorrhage (comparatively) followed the removal of this piece of bone, but one vessel in the dura mater required the pressure of a pad and a bandage to arrest the bleeding from it. She was up on February 25th. Granulations soon sprang up, and on March 2nd skin grafts after Thiersch's method were taken from the thigh and placed in the dura mater, with full success. She left hospital on March 22nd, greatly improved by her stay. There was then an irregular circle of dead tissue around the area of operation, which gradually separated during the next few months and cicatrisation took place around. The relief to the patient and the improvement in her general condition and appearance were very great. Wearing a handkerchief across the forehead and round the head she was comfortable, and there was no suspicion aroused of the underlying deformity. No attempt had been made to cover over the area left after removal of the bone by means of a plate. Mr. Battle drew attention to the various methods of removing portions of the skull now available, and Messrs. Down showed instruments adapted to this object during the course of the evening. The rarity of such cases was mentioned and the unusual character of this fungating growth, the microscopical examination of which showed it to be a spheroidal-celled carcinoma. The case was also interesting from the fact that it was necessary to apply grafts to the dura mater in order to provide for its better protection from the air. The author showed two lantern views of the general appearance of the growth before the operation.

Mr. A. E. **Barker** observed that a saw worked by a motor had several drawbacks; it was difficult to direct, and apt to become clogged in the wound. If worked with a flywheel, it might give a better performance. He strongly recommended Gigli's wire saw, which gave admirable results; but instead of a loop at both ends, which rendered it difficult to introduce, he would terminate it with an end shaped like a blunt-pointed probe, so that it might be introduced in different directions without difficulty.

Erasion of the Ankle-joint.

Mr. **Arbuthnot Lane** read notes of a case illustrating an operative procedure which gave a clear field for the complete removal of tuberculous material from this joint without offering some of the objections he had found to arise occasionally in that described in the *Transactions* of the Clinical Society, vol. xxv. In that operation he divided by means of a transverse incision all the structures around the joint except the internal lateral ligament, the tibialis posticus, and the flexor tendons of the toes. The divided tendons were carefully sutured, but in spite of this, often owing to infection of the joint previous to operation, they occasionally united imperfectly, and deformity and imperfect control of the foot resulted. Besides the transverse incision through the skin he now made vertical incisions of sufficient length to enable him to expose the several tendons for a considerable length. In the young infant he found he could expose the interior of the joint by dividing the peroneus tertius alone, as well as the external, anterior, and posterior ligaments, the other tendons being turned out of their sheaths and hooked aside. In older children he also divided the peroneus longus and high up, cutting through muscular and tendinous fibres, securing larger and more vascular areas in accurate apposition, and keeping the sutured portion at a distance from the joint, and so minimising infection of it. He took the same precaution with the peroneus tertius. By this means the objections to the other operation were practically completely avoided without diminishing its thoroughness.

MEDICAL SOCIETY OF LONDON.

Mr. Edmund Owen, President, in the Chair.

Monday, March 13th, 1899.

Radical Operation for Inguinal Hernia.

Mr. **John Langton** traced the history and progress of the surgical treatment of inguinal hernia. Up to 1835 no attempt was made to occlude the canal, and it was not until Mr. John Wood introduced his improved operation in 1857 that any great success was attained. Mr. Langton described four methods of procedure which appeared to involve definite principles as distinct from mere modifications of detail:—(1) Reconstruction of the inguinal canal with transplantation of the vas deferens and its vessels to the upper angle of the incision so as to form a new inner ring; (2) operations in which the whole or part of the sac is utilised to form a pad or buffer within, or close to, the inner ring, so that the peritoneal fossa usually met with was converted by the boss into a convex buffer; (3) ligature of the sac close to the inner ring, its excision, and the reconstruction of the inguinal canal; (4) partial removal of the sac, its ligation and torsion, its withdrawal through the conjoined tendon, and the inner pillar of the external abdominal ring, and its retention in this situation by sutures. It was impossible to determine the exact method to be adapted until the parts were exposed and the conditions thoroughly examined, but he preferred and practised whenever possible the operation first described, with certain modifications. He used kangaroo tendon as a continuous rather than an interrupted suture, the coaptation of the canal being thereby made more complete. Drainage was rarely needed, only when hæmorrhage had been profuse or when a cavity was left after a large hernia. In males between 10 and 15 years of age, especially when omentum presented, his practice was to drag down a considerable piece, returning it into the peritoneal cavity after securely ligaturing. Rest and recumbent position for a month was a most important element in the after-treatment. He commented upon the widely divergent results recorded by various operators in respect of suppuration. At St. Bartholomew's Hospital the proportion of suppurative cases amounted to 16.5 per cent. One of the main causes of this, he suggested, was insufficient cleansing of the skin prior to operation. The danger to life had of late been rendered practically *nil*. At St. Bartholomew's Hospital during the six years ending 1898 there were only 2 deaths in about 650 cases of reducible hernia—1 from septic pneumonia and 1 from scarlet fever. Of 48 cases of irreducible inguinal epiplocele operated 2 died, both deaths being of preventable origin. The mortality had greatly improved since 1880. Owing to the high mortality operations should not be performed on infants and in extreme old age, except for pressing reasons. During the last five months he had performed 30 operations for the cure of hernia; 27 of these had healed by first intention, while in 3 superficial suppuration occurred. The hospital records showed that operation for inguinal hernia was performed much more frequently in males than in females. As a possible explanation he mentioned that according to the tables of the City of London Truss Society out of 10,770 patients 9,900 were males and only 870 females. Moreover, there were other reasons for more frequent operations in males, entrance into public services, their laborious work and the constant risk of strangulation. The curative operation was one adapted for girls, in whom it was more simple than in males. He always advised the use for a time of a supporting instrument. Patients who applied for relief at the Truss Society owing to failure of the operation were those who had not worn any support. Of 138 cases 78 had been advised not to wear a truss, while 60 had been recommended to wear one for a limited period. In private practice he always recommended a truss. Contra-indications to the operation. (1) Age less than six; (2) the existence of organic disease; (3) when the hernia was so large that the abdominal cavity was unable to receive or retain under moderate pressure the extruded viscera; in such cases a palliative operation to retain the hernia aided by a truss might secure the patient from the chance of strangulation; (4) in very old patients; (5) with small herniæ if the tendino-muscular walls were weak and bulged for a considerable area on coughing; (6) septic peritonitis the result of strangulated hernia. Results: The author called attention to the almost insurmountable difficulties in the way of obtaining an estimate of the permanent results of the operation. Two years was the shortest period at which an opinion could be expressed. Statistics gave most conflicting results. The records of the City of London Truss Society showed that in the last six years 242 operated patients were treated for failure of the operation, from which it might be inferred that the total number of failures must be very considerable. In private practice the results were better known and were encouraging, 80 per cent. being successful, at any rate for several years.

The PRESIDENT said that he often operated under 6 years of age, and asked the author whether he would rigidly adhere to that limit under particular circumstances, as, for instance, in a child of 3 years of age, with careless parents, and a hernia steadily increasing in size. For suturing he preferred a material that could be used for everything, such as silk, which in his experience did very well.

Mr. STANLEY BOYD insisted on the importance of leaving the peritoneum smooth and tense. He always applied torsion to the sac, but in one case the bladder was unfortunately included, with a fatal result. The next important structure was the transversalis fascia, which should be closed by a continuous suture. The muscular arch should be restored as far as possible. He used a fishing-gut stitch to close the external oblique, removing any superfluous fat. For the last two years or more he had always operated by a flap, putting three knots on the fishing-gut suture, which was a continuous one, cutting off the ends close to the knot. Since he had done this he had not had an instance of a stitch reappearing on the surface. He agreed with the author in removing a piece of omentum. He confessed to having had some cases of suppuration, and observed that there was no operation in which suppuration gave so much trouble. He thought the best plan was to give an anæsthetic, and to take out some of the external stitches, passing through the internal oblique and transversalis, and placing a tube in contact with the neck of the sac. He himself had fixed 3 years as the limit of age, that being the age at which children had acquired control over the bladder. Personally, he never recommended a patient to wear a truss unless the abdominal structures were unusually weak.

Mr. LANGTON said that in praising kangaroo tendon he did not wish to decry silk and fishing gut. He did not wish to lay down any hard-and-fast age limit. In his paper he had stipulated that if the child were well cared for he would not advise an operation. His experienee at the Truss Society was that in most instances when a truss was applied to a child the rupture was not heard of again. He agreed that the limit of 3 years was, on the whole, not a bad one. He concurred in the importance of leaving the peritoneum tense and smooth.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

H. R. SWANZY, F.R.C.S.I., President, in the Chair.

Thursday, March 9th, 1899.

IMPLANTATION CYSTS OF THE IRIS.

MR. DEVEREUX MARSHALL recorded three cases of epithelial cysts of the iris which he had recently examined, and showed photographs in the lantern of the points of interest which each exhibited. (1) A boy, aged 12 years, whose eye was wounded eight years before. It remained quiet until three months before removal, since which time it had been painful and irritable. There was found to be a crescent-shaped scar of the cornea, to which the iris was adherent. At the bottom of the anterior chamber there was found a large cyst. On further examination the walls were found to be formed by the iris, which was split into two unequal parts; the iris itself was so atrophied that at one place the wall was composed solely of epithelium. (2) A man, aged 17, whose eye was wounded seven years ago with a piece of wood. It remained quiet until it received a severe blow two weeks before removal. A small cyst was then found at the upper and inner part of the anterior chamber. The anterior wall of this was composed of an extremely thin piece of atrophied iris lined with epithelium and adherent to Descemet's membrane. Its posterior wall was composed of the greater part of the thickness of the iris; the epithelium was laminated, and similar to that of the cornea. (3) A man, aged 29, whose eye was wounded some years before, and had recently become painful and quite blind. The eye was enucleated, and in the anterior chamber was found a small mass near the inner corneo-scleral junction. It had developed in the muscular part of the iris. The cyst was found to be lined with epithelium which had undergone great proliferation, so much so that its cavity was filled with degenerated epithelial cells which had become shed, and having no place of escape had become collected together in the interior of the cyst, thus giving rise to the dense white appearance noted during life. The epithelium in this case apparently arose from a portion of cutis which had become driven in at the time of the original accident, whereas in the other cases the epithelium of the cornea was almost certainly the cause of the cystic development. The question of cysts in general was shortly discussed, and some museum preparations of eyes illustrating the subject were shown.

Mr. TREACHER COLLINS said these cysts varied greatly in situation; they were sometimes found in the substance of the cornea, sometimes in the anterior chamber after cataract extraction, sometimes in the iris itself, being occasionally caused by development of the root-sheath of an eyelash carried into the eye. They were also found in the vitreous, beneath the conjunctiva, and in the orbit. They might be classified as deeply pigmented and unpigmented, the former ones being due to a separation of the two uveal layers of the iris, the latter or unpigmented ones being either mesoblastic, due to dilated crypts of the iris, or due to epithelial inclusion after injury, in which cases their contents might be either clear or sebaceous, according to the source of the included epithelium.

GREEN VISION IN A CASE OF TABES DORSALIS.

Mr. WORK DODD related the case of an artist, aged 32 years. In 1886 his sight was quite good; in 1891 he had diplopia, from which he recovered. His colour vision remained good till 1897, and he complained of defective sight shortly before being seen in July, 1898. When first seen V. was R. $\frac{1}{60}$, L. $\frac{1}{60}$. He had Argyll-Robertson pupils, optic atrophy, and contraction of his visual fields, his gait was ataxic, and he had occasional trouble in passing water. In September, 1898, V. was reduced R. $\frac{1}{60}$ L. hand movements. He then saw everything a bright emerald green; it appeared to him as if there was a green veil hung before his eyes, through which he saw everything; he occasionally saw rose-pink spots through the green veil in places. The colours increased in intensity when he was tired, especially the rose pink. He had also occasional sensations of very brilliant light.

Albuminuric Retinitis in a Child.

Mr. **Arnold Lawson** and Dr. **Sutherland** read a further note on a case. A girl, aged 12, was exhibited before the Society last year with advanced albuminuric retinitis in both eyes, and symptoms of chronic interstitial nephritis. Two weeks after she was shown to the Society she had uræmic convulsions and absolute blindness, which lasted some days. During the next few months she had headache and vomiting, but no more uræmia. In September she was readmitted to the hospital for cardiac failure; death followed. The whole duration of the illness had been a year and three quarters. *Post mortem* both kidneys were found granular; the heart was hypertrophied, and there was a cerebral hæmorrhage into both ventricles. In the retina exudation of the usual type was found at the central region. Congenital syphilis was suggested as a cause.

Mr. **Holmes Spicer** thought the suggestion of congenital syphilis as a cause was interesting. He had now under his care a female, aged about 20, who had interstitial keratitis in both eyes a few years ago, and other evidence of congenital syphilis. In the last few months she had developed very marked sclerosis of her retinal arteries, which presented the typical gold-wire appearance; she had retinal hæmorrhages, and flocculent masses of retinal exudation. Albuminuria was also present.

In reply, Mr. **Lawson** said that Dr. Guthrie, who had made the *post-mortem* examination, had found this condition present in children in many cases, and he believed it to be almost always due to congenital syphilis.

Strabismus Fixus.

Mr. E. **Donaldson** reported a case. A female aged 46 had had convergent squint since childhood; the deviation was so great that the left cornea was almost hidden; under an anæsthetic the eye could not be drawn out, and it was impossible to reach the internal rectus to divide it. The other eye was also fixed in a strongly convergent position, but it was possible to divide the internal rectus; by separating Tenon's fascia freely from the globe the position of the eye was much improved. Snellen had published some cases all of which were congenital; the condition had been named strabismus fixus by v. Graefe, but the cause was unknown.

Card Specimens.

Mr. **Sydney Stephenson**: A case of Hippus.—Messrs. **Brailey** and **Eyre**: Case of Exophthalmic Goitre and Glaucoma.—Mr. R. W. **Doyne**: A peculiar form of Choroiditis occurring in several members of a family.—Mr. J. **Griffith**: Serous Cyst of Conjunctiva.—Messrs. **Lang** and A. H. **Thompson**: Two cases of Embolism of Central Artery of the Retina, with escape of Papillo-Macular Triangle.—Mr. **Reginald E. Bickerton**: Haab's Magnet.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Medicine.

H. C. Tweedy, M.D., President, in the Chair.

Friday, February 17th, 1899.

Tuberculosis in Ireland.

Dr. **Grimshaw** read a paper on the prevalence of tuberculosis in Ireland, and the measures necessary for its prevention. Having referred to previous papers read before the Academy, the observations on the subject contained in the *Manual of Public Health for Ireland*, written by Dr. Grimshaw, in conjunction with Dr. T. W. Moore, Mr. R. O'B. Furlong, and Professor Emerson Reynolds, and to the reforms in the various official reports which he had issued as Registrar-General for Ireland, and to the extensive prevalence of the disease in the United Kingdom, Dr. Grimshaw proceeded to analyse the principal statistics of mortality from tuberculosis, and especially phthisis, in Ireland, the analysis being mainly founded on a table of the deaths from tuberculosis in children under 5 years of age, and from phthisis at the various ages of active life from 15 to 45, in town and country districts. The result of this analysis showed the following remarkable results: During the three years dealt with in the table—1895, 1896, and 1897—the average annual death-rate from all causes for Ireland was 17.3 per 1,000; the rate for the town districts (that is, towns with a population of 10,000 and upwards) was 25.4, and for the rest of Ireland 15.2. For Ireland the death-rate from all tuberculous diseases, exclusive of phthisis, was 0.7 per 1,000, for country districts 0.4, for town districts 1.5, or nearly four times the latter rate. For consumption alone the rates were for Ireland 2.0, for country districts 1.7, for town districts 3.3, or nearly double the usual rate. Taking all forms of tuberculous disease the rate for Ireland was 2.7—for country districts the rate was 2.1, for town districts 4.8, or more than double. In the districts with six large towns the rates were from all causes 26.2, as compared with 15.2 in country districts; from tuberculosis other than phthisis 1.6 against 0.4, or exactly four times the rate; for phthisis 3.5 against 1.7, or slightly more than double the rate; and for all forms of tuberculosis combined 5.1 against 2.1, or considerably more than double as compared with country districts. It would be observed that by far the most important cause of death dealt with in the foregoing remarks was phthisis. This disease alone caused 11.7 per cent. of all the deaths in Ireland during the period under consideration, the percentage for the districts with towns of over 20,000 population being 13.3, for those with towns of 10,000 inhabitants and upwards 13.2, or slightly less, as compared with 11.1 per cent. for the rest of Ireland. These figures pointed to a conclusion which to many would be somewhat unexpected—namely, that the proportion of deaths from consumption to total deaths was very high even in the country districts of Ireland. If they compared the death-rate from tuberculous disease in the six great town districts of Ireland as measured by the general population, it would be found that of the forms of tuberculosis other than phthisis, Dublin and Belfast were the same, 1.8 per 1,000; Londonderry next, 1.6; Waterford, 1.2; Cork, 1.1; and Limerick, 0.7 only. In the case of phthisis Belfast led with a rate of 3.9, Cork followed with 3.8, then in order came Dublin 3.3, Waterford 3.2, Limerick 3.0, Londonderry 2.5. These figures were sufficiently serious, but when the ages at which tuberculous diseases were most fatal were considered, still more alarming results were found. The forms of tuberculosis which killed young children were tabes mesenterica, tuberculous meningitis, and forms of tubercle other than pulmonary consumption. In Ireland the death-rate of children under 5 years of age from these forms of tuberculosis was 3.5 per 1,000 living at this age-period. In the districts with towns of 10,000 and upwards the rate was 8.7 as compared with 2.0 in country districts, or more than four times the rate. In the six large towns taken collectively it rose to 9.4, in Dublin it reached 11.0, and in Belfast 10.0. In the others it was considerably below the 10,000 towns' rate, the rate for Limerick being only 3.3, or less than the average rate for Ireland. The very high proportion of deaths in Dublin and Belfast was very remarkable and very serious. In considering the deaths from tuberculosis between the ages of 15 and 45, the main working periods of life, it was found, taking Ireland as a whole, that during the whole age-period of 15 to 45 the deaths from phthisis constituted 43.5 per cent.; in the period from 15 to 35, 49.6 per cent., or nearly one-half; in that from 15 to 25—which was apparently the most fatal age period—52.8 per cent., or more than one half; from 25 to 35, 46.1 per cent.; and from 35 to 45, 29.1 per cent., compared with a total for all ages of 11.7 per cent. of the total deaths. During the age-period of 15 to 25, the percentage of deaths to total deaths reached the terrible total of 44.6 per cent. in Dublin, 55.4 per cent. in Belfast, 54.4 per cent. in Cork, 56.3 per cent. in Limerick, 52.5 per cent. in Londonderry, and no less than 58.6 per cent. in Waterford. In the next decade of life—25 to 35—the percentages fell somewhat in each case, but were still so near one half of all the deaths at that age as to excite considerable alarm as to the ultimate result to what ought to be the most active portion of the community. Dr. Grimshaw then proceeded to point to the remedies, and mainly relied on those put forward in the report of the Tuberculosis Committee of the British Medical Association, and quoted with approval the recommendations of the last Royal Commission on Tuberculosis.

The following resolution, proposed by Dr. **John W. Moore**, President R.C.P.I., seconded by Dr. **McWeeney**, was adopted:

> That the Section of State Medicine, having an accurate knowledge of the prevalence and mortality of pulmonary consumption and other forms of tuberculosis, hail with pleasure the movement to control this destructive group of infective diseases, which has been inaugurated by the British Medical Association. The Section urge upon the Council of the Royal Academy of Medicine in Ireland, as a matter of public professional duty, to co-operate in every possible way with those who are engaged in the present determined effort to cope with tuberculosis, now proved to be the deadliest scourge of the human race.

The Death-rate from Tuberculosis.

Dr. **Martley** read a paper on the death-rate from tuberculosis, as exemplified in the male population of England, for the five years 1891-95. After pointing out that the deaths from this cause were nearly as numerous as those from the whole group of zymotic diseases, and that they annually averaged about 240 per 100,000 living, he drew attention to the very unequal mortality at different ages, tuberculous disease being most fatal in the first few years of life, and again, though to a less degree, about 40. However, on correcting the county rates for varying age distribution, he found that there was comparatively but a slight difference, and that for all practical purposes sufficiently correct results could be obtained by using the crude rates.

The Bacteriological Aspect of Tuberculosis.

Dr. **McWeeney** read a paper on this subject, and demonstrated a series of illustrative microscopic preparations and photographs. An attempt was made to appreciate the importance of the *rôle* played by sputum, meat, and milk in the dissemination of tuberculosis, and the speaker recounted his own experiences of tuberculin injection as the diagnostic method applied to cows, and laid stress upon what appeared to be the relative infrequency of the disease amongst Irish dairy cattle. The practice of keeping them "on grass" for more than six months of each year might be regarded as an "open air" mode of treatment applied to the bovine race. He concluded by earnestly deprecating overzeal in the adoption of measures intended to be preventive, but which by involving irksome restriction or intolerable publicity would speedily be found to defeat their own purposes.

Distribution of Tuberculosis in Ireland.

Dr. P. **Letters** read a paper in which by statistical tables he sought to prove that tuberculous disease throughout Ireland—tabes mesenterica and tuberculous meningitis more so than phthisis—was regulated almost exclusively by aggregation of population. Small towns and villages bred tuberculosis largely. He controverted all theories referring the prevalence of Irish tuberculosis to meteorological or climatic causes, or to the proportionate amount of bog and barren mountain land, to surface elevation, or to geological formation. These did not operate as influential factors, or their effects could not be measured by death-rates recorded over large areas. In the counties, death-rates per million living from (1) tabes mesenterica and tuberculous meningitis combined, and (2) from phthisis, corresponded so closely with the several degrees of urbanisation as to leave no reasonable doubt of a causal relationship. This line of argument led to the conclusion that tuberculosis, as found in Ireland, was essentially a town-bred and village-bred disease, exclusively rural localities showing next to no mortality from tabes mesenterica and tuberculous meningitis, and greatly reduced death-rate from phthisis. The most tuberculous region in Ireland extended along the eastern and south-eastern seaboard, and was mapped out by the counties of Antrim, Down, Dublin, Wexford, and Waterford. The least tuberculous was found in a compact region in the north-west comprising the five contiguous counties of Donegal, Leitrim, Cavan, Fermanagh, and Longford. These two regions contained respectively a high and a low percentage of urban population. A table giving the percentage of inhabitants of towns over 500 to the total population in each of the thirty-two counties showed that, where the town-dwelling population was high, so also was tuberculosis, and *vice versâ*. Freedom from tuberculosis, or the reverse, in the smaller areas of Poor-law unions throughout the country, depended on the same general law of aggregation into town and village communities. Kerry, taken as a whole county, was statistically rather tuberculous. Divided into two regions, North Kerry including the unions of Tralee, Listowel, and Killarney, and South Kerry, the remaining unions of Dingle, Cahirciveen, and Kenmare, twenty of the Irish counties were found to be less tuberculous than North Kerry, while South Kerry was considerably freer from tuberculosis than any whole county in Ireland. This was explained by the fact that the percentage of urban population in South Kerry was only 9, while in North Kerry it was 19. The most correct test of the tuberculous character of a locality was when the mortality from tabes mesenterica and tuberculous meningitis combined bore a high rate to that from phthisis. This high proportion of juvenile to adult tuberculous mortality in Ireland invariably corresponded with a high degree of urbanisation.

ULSTER MEDICAL SOCIETY.

Joseph Nelson, M.D., President, in the Chair.

Thursday, March 2nd, 1899.

Topographical Anatomy.

Professor J. Symington and Dr. **R. J. Johnstone** gave a demonstration on the topographical anatomy of the thoracic and abdominal viscera, illustrated by two subjects hardened in formol, and by a large series of ordinary and stereoscopic photographs and lantern slides. The subjects were injected with a 5 per cent. solution of formol under a low pressure until the entire body was thoroughly hardened. This process occupied about a month. The extremities and the head were then removed, the trunk placed in a shallow wooden tray and fixed in position with plaster-of-paris, and by driving a number of strong silvered skewers through the body and the bottom of the tray, their projecting points being afterwards cut off. The body was then dissected so that the various parts could be easily replaced in position. The skin was reflected in one large flap from the anterior aspect of the thorax and abdomen, and thrown downwards. The abdominal cavity was opened by removing its anterior wall in three pieces, two lateral and one central. The central portion comprised the two recti muscles with their sheaths, etc. It was detached from the sternum and costal cartilages, but left united to the pubic bones. The thoracic wall was divided on each side along the mid-axillary line, and through the middle line of the sternum, and removed in two pieces. The first pair of costal cartilages and the adjacent part of the manubrium sterni were left in position. The solid organs could easily be removed in well-hardened formol subjects in such a way that they could be accurately replaced, but the hollow viscera—especially the convolutions of the jejunum and the ileum—presented more difficulty in this regard. The method adopted, which was found to work well, was to unite these intestines together by a large number of interrupted sutures. After division of the mesentery they can be taken out and put back into the abdomen *en bloc*. In the case of the heart, a series of dissections were made to expose its cavities and valves, the different pieces removed being easily fitted together again. The above method had been worked out with great care so as to allow the thoracic and abdominal organs to be removed and replaced and their relations to one another and to the surface of the body to be accurately studied. The subjects had been kept for upwards of three months, and used on various occasions for demonstration purposes without any change, except slight shrinkage of the lungs. The photographs and lantern slide shown were taken from the subjects as each stage of the dissection was completed.

Dr. **McCaw**, Professor **Redfern**, and the **President** made observations.

Fœtal Monsters.

Dr. **R. J. Johnstone** exhibited two fœtal monsters, and made some remarks upon them. One was a case of complete hernia of the abdominal organs, the abdominal walls being merely represented by some shreddy gelatinous material which covered over the exposed viscera. The spinal column was strongly curved to the right, and a meningocele of the sacral region existed. The pubic bones were widely separated in front. The genital ducts (female) opened separately on either side of an extroverted urinary bladder. The large intestine ended blindly, but a false anus at the ileo-colic junction opened just above the bladder. The case was interesting clinically, as the placenta was adherent to the membranous anterior abdominal wall of the fœtus, which was the presenting part, and a diagnosis of placenta prævia had at first been made by the practitioner in charge, but delivery had been easily accomplished manually by a second medical man called in consultation. The second case presented anteriorly the characteristics of an anencephalic fœtus, with absence of neck and upturned face, but differed from that variety of monstrosity in possessing well-developed cerebral hemispheres and a completely ossified cranium.

SOCIETY OF ANÆSTHETISTS.

DUDLEY BUXTON, M.D., M.R.C.P., President, in the Chair.

Friday, February 17th, 1899.

PROLONGATION OF NITROUS OXIDE ANÆSTHESIA.

DR. McCARDIE read a paper on a means of prolonging the anæsthesia of nitrous oxide gas by means of a mouth tube. His plan was a modification of the method described by Mr. Coxon. Its distinctive features were: The nares were clamped, the mouth tube was only introduced into the corner of the mouth, into which a constant stream of gas was maintained. The gas was first given in the usual way, and as soon as anæsthesia was obtained the facepiece was rapidly changed and the mouth tube inserted, and the nose clamped. An assistant was required. The after-effects were those of nitrous gas.

The PRESIDENT thought that the large quantity required was a disadvantage. He had no doubt that the closing the nostrils would by itself cause prolongation of the anæsthesia, as in most people it checked the expiration of air.

Mr. WILLETT preferred the use of gas and oxygen to that of gas by itself, so that methods which prolonged the use of gas did seem to him necessary.

Mr. C. C. BRAINE pointed out that the method of giving gas and oxygen could not give a working anæsthesia of two or three minutes as could be obtained by Mr. MacCardie's method. He had used Coxon's method with success; he did not use a central prop.

Dr. FLUX described his method of giving nitrous gas by an open method inhaler. A stream of gas was allowed to flow into the open wide upper end of the inhaler during inspiration. Anæsthesia having been once obtained, it could be kept up by an occasional breath of gas within or without the inhaler. The induction took from 50 to 80 seconds, and the patient apparently passed into a natural sleep. He had used the plan for patients of ages from 7 months to 70 years, and in no case had ill-effects followed. The facepieces were made of celluloid, although in the first instance a common towel was used; a cylindrical facepiece answered best for the recumbent and a cup-shaped for the sitting posture. It was important that the gas should not escape by leaking out between the face and the facepiece; the weight of the gas prevented its escaping in an upward direction. The method avoided septic infection, as the emanations from the patient's lungs did not pass into closed bags, etc.; 7 to 8 gallons of gas were required for an adult, and 3 to 4 more would suffice for each additional minute of anæsthesia.

Mr. BELLAMY GARDNER had found when large quantities of air were present anæsthesia by nitrous oxide was impossible. He imagined, therefore, that the patient's breath must rapidly escape in Dr. Flux's method and a fairly high percentage of gas enter the lungs.

Mr. H. BALDWIN had seen and been struck by the success of Dr. Flux's method.

Mr. CARTER BRAINE, besides seeing the method in use, had taken gas by it and found it a most agreeable way of getting anæsthetised.

After remarks from Mr. TYRRELL, Mr. WILLETT, and Mr. LOW,

Dr. FLUX replied, and said the test of anæsthesia by the "open method" was absence of sense of feeling, loss of lid reflex, and usual signs of profound sleep.

NITROUS OXIDE AND OXYGEN.

Mr. BURNS related four cases of interest in which nitrous oxide and oxygen were given. In the first case the patient suffered from albuminuria, diabetes, aortic disease, and a cough, and was 53 and very fat, and an alcoholic. The operation was amputation of a finger. The second was a case of empyema in a patient of 60. In the third case a lady of 47 suffered from empyema with orthopnœa. In the fourth case—the patient a young man on whom skin-grafting was to be done—cessation of breathing occurred after anæsthesia was produced with slight cyanosis, but recovery took place after artificial respiration was done.

Mr. HILLIARD narrated a case of primary syncope under nitrous oxide and oxygen. The patient was sitting, the mixture of gases was given from Hewitt's apparatus, and the induction of anæsthesia was quite natural, except that pallor was seen. A furunculus in the auditory meatus was incised, and, as the operation was commenced, the patient fainted and breathing ceased. Full anæsthesia was present; the patient said he was subject to "feeling faint," but had not fainted before. Mr. Hilliard thought the syncope might have been caused reflexly by irritation of the articular branch of the vagus.

PAPER.

Mr. HILLIARD read notes of a case of Spasmodic Asthma following the administration of gas and air in an asthmatic subject.

LIVERPOOL MEDICAL INSTITUTION.

W. MACFIE CAMPBELL, M.D., President, in the Chair.

Thursday, March 9th, 1899.

LIVERPOOL SCHOOL OF TROPICAL DISEASES.

THE following resolution was carried unanimously:

> That the members of the Liverpool Medical Institution cordially support the establishment of a school of tropical diseases in Liverpool, where, owing to the exceptional opportunities for studying tropical diseases, medical men, before proceeding to the tropics or taking charge of ships, can receive systematic training, and where facilities for research will be provided.

The PRESIDENT, in proposing the resolution, congratulated Liverpool on the lead it had taken in this matter. With its manifest advantages in having a large foreign trade, such a school would soon draw pupils. Already the foreign consuls had been interested in the subject through the energy of Professor Boyce. Much credit was due to the Royal Southern Hospital, which had placed a whole flat at the disposal of the school, and further investigations would take place at the Thompson-Yates Laboratories, University College.

Dr. E. ADAM seconded.

Prof. SHERRINGTON expressed his conviction of the value of the tropical diseases school to Liverpool, and, indeed, to the whole country. The opportunities offered by the second seaport of the Empire were a sufficient guarantee of the desirability of the foundation of the school here. Years ago Professor Koch had urged the national duty that devolved on England as mistress of India to investigate malaria and cholera; yet, in comparison with the work done by Germany, Italy, and America, England had contributed little to human defences against these diseases, although the scourge specially touched her sons.

Professor BOYCE said that the establishment of the school had awakened great local enthusiasm, so much so that £1,000 had been promised in subscriptions, most of these being annual. No pains had been spared in securing the best teachers, and in thoroughly equipping the clinical laboratories, which in ten days' time would be ready, and thus would be the first in England, indeed in Europe. Close upon 300 cases of malaria alone were notified in Liverpool last year, half of the cases being treated in hospital—the Royal Southern Hospital, where the special wards were now being fitted up, having the largest share. They were in full sympathy with the movement in London, but they asked for full and independent recognition from the initiator of the whole scheme, Mr. Chamberlain, in regard to the teaching of West African and West Indian diseases, for which they had unrivalled opportunities. Fortunately, unlike London, the medical profession in Liverpool were unanimous in wishing success to the school.

Dr. **WILLIAM CARTER** thought the subject of so much importance that a report should be sent to the public press in addition to the medical journals.

This was carried.

TRAUMATIC AXILLARY ANEURYSM.

Dr. **NATHAN RAW** exhibited a patient on whom he had operated for traumatic aneurysm of the axilla, treated by free incision and ligature of axillary vein and subscapular artery, after placing a temporary ligature on the first part of the axillary artery and vein. The damage to the axilla had been caused by placing the foot in the armpit to reduce a dislocation.

Mr. **MITCHELL BANKS** expressed the pleasure it had given him to assist Dr. Raw, and congratulated him on having brought to a successful issue a dangerous, difficult, and trying case. He (Mr. Banks) had been fortunate enough to witness in 1862 the celebrated operation done on an axillary aneurysm by Professor Syme, by boldly laying the sac open and ligaturing vessels.

COMPOUND DIASTASIS OF LOWER END OF RADIUS.

Mr. **DOUGLAS CRAWFORD** brought forward a lad, aged 15, on whom he had operated for compound diastasis of the lower end of the right radius, with separation of the lower ulnar epiphysis. The lower end of the shaft of the radius had been driven through the skin, contusing the median nerve by a fall from a height. On the twenty-seventh day secondary hæmorrhage occurred from the ulnar artery, caused by ligature of brachial artery. On the forty-sixth day portions of the lower ends of the shafts of the radius and ulna were removed. The median nerve was still functionless, and would need freeing, suturing, or grafting.

BERLIN'S OPERATION FOR ENTROPIA.

Mr. **T. H. BICKERTON** exhibited a patient on whom he had performed Berlin's operation for entropia. The boy, aged 16¾, could never remember being able to see. He had been an inmate of a blind school for nine months. In May, 1897, the eyelids were in a state of blepharospasm, the edges of the lids completely inturned, corneæ dull grey, total absence of glistening appearance normally present, vessels freely permeating the pannus. The patient was practically blind, not being able to see his hand before him. Berlin's operation was performed May, 1897; occasionally since then a few erratic cilia had been destroyed by electrolysis. The patient left the blind asylum in October, 1898, able to see to get about without difficulty, and he could now (March, 1899) spell Ja. 16.

Mr. **RICHARD WILLIAMS** objected to all operations which still further sacrificed tissue in old contracted lids. Operations such as Van Millingen's, which aimed at eversion by adding new material to the contracted "tarsus," were in his opinion more sound. He obtained much the same object by a method of his own which he briefly described.

THE CHRONICITY OF ECZEMA.

Dr. **LESLIE ROBERTS**, who read a paper on this subject, said that the conditions of chronicity divided naturally into those which had reference to the skin, to the individual, and to the physician. The cutaneous conditions arose out of the division of the skin into autonomous territories in which lymph and excess cell products could accumulate without necessarily disturbing the neighbouring territories. The central event in the course of eczema was overgrowth and œdema of the epithelium from adventitious stimulation. So long as the epithelium remained œdematous the perturbations outside the skin acted on the inflamed skin as continuous irritants, tending to increase the accumulation of lymph and the new formation of cells. The author passed on to consider the relation of the individual to eczema, and showed how, under certain conditions of the skin, the patient could manufacture his own eczema with his hands. In discussing the physician as one who modified the course of eczema, the author referred to the evil effects of false theories about the etiology of eczema, especially the prevalent blood-origin theory of the disease. He concluded by pointing out some of the principles which should guide us in the choice of remedies for the cure of eczema.

Dr. **BARENDT** questioned whether disturbance of the epithelium was the central factor in the evolution of eczema. Mere scratching of the epidermis failed to produce eczema, it was essential to disturb the dermal capillary nexus. The cutaneous nervous system was profoundly altered. It was doubtful whether hæmic poisons engendered eczema, notwithstanding the general impression to the contrary. He could not connect gout and eczema etiologically. When eczema became chronic, it was essential to insist on the removal of all impediments to the production of a "normal horny layer."

Dr. **G. G. STOPFORD TAYLOR** inferred that the reader of the paper believed that the origin of eczema was always due to external causes. While agreeing that the majority of cases undoubtedly were, still the association of migraine, asthma, gastro-intestinal disturbance, and gout were more than accidental. He also accepted the bacterial origin of eczema, and maintained that in the treatment of all cases, suitable antiseptic treatment, with rest and protection, were necessary to prevent the disease spreading.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Sir **JOHN BATTY TUKE**, M.D., F.R.S., President, in the Chair.

Wednesday, March 1st, 1899.

CASES.

DR. **W. ELDER** showed: (1) Case of Absence of Fifth Metacarpal Bone; (2) case of Localised Skin Eruption of seventeen years' standing; (3) case of Amyotrophic Lateral Sclerosis.—Dr. **SCOT SKIRVING** showed: (1) A patient with Charcot's Disease, simulating double dislocation of the hip-joint; (2) a patient with total Necrosis of Frontal Bone.—Mr. **STILES** showed: (1) a case of Infantile Paralysis; (2) child of 7 months with Large Hydrencephalocele; (3) two brothers, both with Congenital Dislocation of the Hip-joint; (4) a child with Coxa Vara.

SPECIMENS.

Mr. **STILES** showed: (1) Viscera from a case of Lympho-Sarcoma of the Abdomen, which simulated abdominal tuberculosis clinically; (2) Thoracic Viscera from a child who suffered from severe dyspnœa with expiratory stridor, due to the presence of a large lymphatic gland.—Dr. **SCOT SKIRVING** showed: (1) Sequestrum of entire Frontal Bone; (2) Tuberculosis of Mamma; (3) Compound Fracture of Carpus.

PERITONITIS AND INCREASED PERISTALSIS.

Mr. **CATHCART** read a paper on peritonitis as a cause of increased peristalsis in the rectum and in other parts of the intestine. Beginning with the rectum he gave an account of two cases—one of severe pelvic peritonitis, the other of gangrenous perirectal abscess—where tenesmus had been a leading symptom in the early stage. He then referred to rectal symptoms in periprostatic inflammation, and showed how the knowledge of such rectal symptoms had guided him in dealing with a case of pelvic abscess secondary to appendicitis. With regard to other parts of the intestine he drew attention to Grünbaum's experiments, and to Nothnagel, Treves, and Gee's clinical observations in support of the view that peritonitis causes an increase of peristalsis before the muscular coat of the bowel is involved. After meeting some possible objections, he concluded by indicating how a knowledge of the relation of peritonitis to increased peristalsis would be of service in diagnosis.

Mr. Cathcart's paper was discussed by Drs. **RONALDSON** and **P. A. YOUNG**, and by Mr. **COTTERILL**; and Mr. **CATHCART** replied.

ETIOLOGY OF GOUT.

Dr. **CHALMERS WATSON** was to have read a paper on this subject, but so much time was occupied with the exhibition of patients and specimens, that the paper was only reached at a late hour, after the attendance had become very thin. Dr. Watson therefore merely gave a rapid outline of his paper, and there was no discussion. The paper comprised the following points: (1) The question of the existence of uric acid in normal blood; (2) observations on a series of cases of examination of the blood in a number of diseased states;

(3) similar examination of the viscera; (4) comparison between the *rôle* played by uric acid in gout and leucocythæmia, with observations on the chemical pathology of the two states. His main conclusions were as follows: (1) Uric acid is not normally absent from the blood of birds, and therefore the teaching of Garrod and Luff, arising from that premiss, would appear to be erroneous; (2) from the comparative frequency of uratemia in the absence of manifestations of gout, uric acid is not the all-important factor that is commonly supposed; (3) the greater amount of uric acid in the liver than in the other two organs seems to indicate that the metabolic processes there are more conducive to uric acid formation, and therefore the part played by it in the production of gout is a more important one; this is in accordance with the view expressed from clinical experience; (4) any views as to the uric acid excretion having a definite and constant relation to the number of white corpuscles in the blood are not to be entertained; (5) in view of the conclusions arrived at by Moore as to the frequency of uratic deposits, uratosis, that condition plays a more important part in hospital practice than we are usually led to suppose.

EXHIBIT.

Mr. **CATHCART** showed a Clinical Research Case.

MANCHESTER MEDICAL SOCIETY.

Professor J. W. SINCLAIR, M.D., President, in the Chair.

Wednesday, March 1st, 1899.

DEATH FROM INHALATION OF POISONOUS GAS.

DR. DIXON MANN gave an account of a fatal accident that happened to two men in December, 1898, in a main sewer in Manchester, which, in addition to the ordinary contents of a sewer, conveyed the refuse from a number of chemical manufactories. This caused the sewer to have a special odour which, on the day of the accident, was very pungent, and resembled that encountered in the neighbourhood of a rubber works. Dr. Leech, who happened to pass at the time the accident occurred, described the smell as being like a mixture of coal tar and mackintosh. The toxic and other properties of a number of gases and vapours which might possibly be present in the sewer were discussed; certain indications such as the *post-mortem* appearances of the bodies, the presence of lighted candles in the sewers at the time of the accident, the fact that, although the deceased were standing in between 2 and 3 feet of water when overcome by the poisonous agent, yet the bodies showed no signs of death from drowning, together with other conditions which afforded assistance in determining the nature of the lethal agent, were severally considered. The conclusion arrived at was that death was most probably due to a sudden local evolution of sulphurretted hydrogen.

RUPTURED TUBAL PREGNANCY.

Dr. **DONALD** read notes of a case. The patient, who had been married twelve months, menstruated regularly till October 16th, 1898; in November and December there was a slight show. On November 26th she had an attack of pain in the epigastric region, which was thought to be due to gastric catarrh. A second attack of a similar nature, but more severe, occurred on December 6th. On December 26th she was seized with acute pain all over the abdomen. When first seen the patient was blanched and had a very weak pulse; the abdomen was distended, and there were all the signs of peritonitis. The abdomen was opened on December 27th, and the abdominal cavity was found full of blood. The left tube contained a small embryo, which had partially escaped through a rent in the wall of the tube. Fœtal movements could be distinctly seen. The tube was removed, the abdomen washed out, and the wound closed. The patient made a rapid recovery. The interesting point in the case was that the pain in the first two of the attacks was referred to the epigastric region, and was mistaken for gastric catarrh and intestinal colic. The diagnosis of the case rested entirely on the clinical history and symptoms, as nothing could be felt *per vaginam*, and the abdomen was too distended to permit of a bimanual examination.

OTHER COMMUNICATIONS.

Dr. **JUDSON S. BURY** made some remarks upon a case of Gangrene of the Feet in association with peripheral neuritis. —Dr. **DELÉPINE** discussed the causes of the position of Primary Tuberculous Lesions of the Lung.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

EDWIN LEE, M.R.C.S., President, in the Chair.

Friday, March 3rd, 1899.

APPENDICITIS.

MR. W. H. BROWN read a paper based on 32 cases; 13 cases were operated upon; 3 of these were associated with general peritonitis, and died a few hours after operation; 7 were cases of localised suppuration, and all recovered; the remaining 3 were relapsing appendicitis, and recovered after removal of the appendix; 19 cases were treated without operation, and all got well except one. This patient was a woman upon whom the author had performed ovariotomy a week before the commencement of the attack of appendicitis. At the *post-mortem* examination gangrenous appendicitis was found. Mr. Brown then discussed the different degrees of severity of the disease, and considered that in suppurative appendicitis simple incision and drainage of the abscess was the safest plan of treatment. After a second attack of recurring appendicitis he advised removal of the appendix.

A discussion followed, in which Dr. **GRIFFITH**, Dr. **CAMPBELL**, Mr. **LITTLEWOOD**, Mr. D. **GRANGE**, Dr. **CHURTON**, Dr. **BLACK**, and Mr. **KNAGGS** took part.

ŒDEMA OF THE LUNGS.

Dr. **CHURTON** read a short note upon acute œdema of the lungs. He had observed during many years that in diseases in which pulmonary œdema was the last and fatal event, the upper lobes were usually more œdematous than the lower. The lower lobes were darker and contained more blood, but yielded much less fluid on pressure. This observation had been found useful in cases of sudden and urgent dyspnœa in which acute œdema was suspected, and in which accurate investigation was very difficult. Recently, in three such cases it could be shown that the upper lobes were not dull and had no crepitations: it was thence inferred that the dyspnœa was not due to œdema, since it was improbable that œdema of the lower lobes alone could cause symptoms of orthopnœa, great pallor, sweating, semi-coma, of so great intensity and suddenness. The dyspnœa was apparently caused by temporary paralysis of the diaphragm and lower intercostal muscles; the lower chest did not move. One patient was on the point of being bled, but a history of constipation was obtained, the rectum was found to be distended by very hard masses, and on their removal, with much difficulty, all the symptoms rapidly subsided.

Drs. **ALLAN**, **GRIFFITH**, and **TREVELYAN** took part in the discussion. Both the last-named agreed with Dr. Churton as regarded the preponderance of the œdema in the upper lobes.

BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY.—At a meeting held on March 2nd, Dr. R. **FORTESCUE FOX**, President, in the chair, twenty candidates were elected by ballot. —Dr. **DOUGLAS KERR** (Bath) read a paper on the Treatment of Disease by Heat. He suggested that the first idea of the use of heat was probably conveyed to the mind by noting the benefit of the sun's heat; where this could not be procured, fires in sick rooms, hot baths, poultices, fomentations, hot bottles, etc., had been substituted. The temperature from these means were not high, whereas hot air could be easily borne at a temperature of 300° to 400° for lengthened periods. He sketched the use of the Turkish bath, and referred to box baths heated by lamps of various forms, and described the Tallerman, Dowsing, and Greville apparatus. The principle underlying the treatment was expressed in the fact that cold applied to the body surface stimulated, while heat facilitated, functions. He made a strong point of the use of whole body bathing in hot-air apparatus as against local appliances; gave the facts of such high temperatures which were noted in textbooks; expressed the opinion that hot-air baths would prove a useful adjunct to thermal treatment, but would not give such good results when employed alone; and concluded by pointing out the peculiarity of the heat supplied by the Dowsing bath, which was luminous and radiant, and in this respect more resembling the sun's rays.—Dr. **HEDLEY** (London) read a paper entitled the Therapeutics of Heat. He discussed the merits and demerits of recent apparatus for the application of high temperatures to the body, giving marked preference to such as supplied heat from a luminous source, inasmuch as it had been proved by experiment that as light rays were added the heat rays became more intense. He dwelt upon the *modus operandi* of heat in therapeutics, taking the instance of a simple sprain and those phases of the inflammatory process that were likely to be influenced by heat.—Dr. **WHITBY** (Clifton) said that both dry and moist heat caused a measurable increase of the girth of the limbs and a decrease of the abdominal girth, the latter from depletion of the splanchnic vessels. The renal excretion showed evidence of increased metabolism. Evidence was adduced of the varying toxicity of sweat, and of its relation to pathological conditions—for example, epilepsy. Heat had a beneficial effect on the course of infective inflammations, and the artificial pyrexia produced by heat baths favoured the oxidation and elimination of toxins. —Dr. **LUFF** stated that he had had excellent results from the employment of local superheated air baths in selected cases of gout, rheumatism, and rheumatoid arthritis. He emphasised the importance of keeping the air dry, and considered that the beneficial effects were mainly due to the increased local circulation, to the improvement of local metabolism, and to the anodyne effect of the superheated air.—Dr. **JAMES MYRTLE** (Harrogate) illustrated the clinical value of the superheated air bath by relating the history of several cases, in one of which a temperature of 392° F. had been attained.—Dr. **BOWLES** (London) said there seemed to be some confusion in the minds of speakers in reference to radiant heat and other forms of heat. All heat was radiant, but it might be absorbed by certain substances and conducted or conveyed and again radiated to other bodies. The three forms of hot air baths which were now being considered claimed distinct and peculiar advantages. For therapeutic purposes heat had always been applied in the dark or invisible form, whether derived from combustion, electricity, or other sources. In the Dowsing bath it was claimed that the heat was radiant and produced different effects; inasmuch as it had light as well as heat it was different, but the value of the effects of this light had not been in any way gauged. In his experiments in the Alps he found that light reflected from snow acted quite differently on the human tissues to direct sunlight, and that the effects were entirely out of proportion to direct heat.—Dr. **HYDE** (Buxton) had used many years ago various methods of applying high temperatures as adjuncts to spa treatment. After several years' observations he discovered, especially in rheumatoid arthritis, that many of his apparent successes were not permanent. In many the pain and swelling remained reduced, but the joints afterwards became more fixed and crippled. He had concluded that too prolonged and too frequent application of the "higher thermal treatment" in many chronic joint affections was positively injurious. While agreeing that such remedies, properly used, were of value, he deprecated their excessive and incautious use.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.—At a meeting on February 21st, Dr. **BERRY** (President) in the chair, Dr. **MITCHELL** related a case of Recurrent Melanotic Sarcoma, which he had treated by the application of formalin.—Dr. **BRONNER** read a paper advocating the use of Protargol as a local application in diseases of the eye and throat, in cases where silver nitrate has been usually employed. Among the advantages he enumerated were its comparative painlessness in application, and also its non-staining property.—Mr. **HORROCKS** read notes on Gastroplication for dilated stomach. After detailing the conditions which gave rise to dilatation of the stomach, Mr. Horrocks related a case. A domestic servant, aged 35, was admitted to the infirmary in December, 1897. She weighed only 4st. 9lb. Two years before she had been seized with pain in the right side, and soon after she commenced to vomit. No blood had been seen in the vomit till shortly before admission. The stomach was found to extend downwards below the umbilicus, and to occupy the left hypochondriac region. A distinct splash could be elicited at all times, as the fulness of the stomach never disappeared. No tumour could be felt in the pyloric region. The patient was put on a limited solid diet, together with rectal alimentation, and the stomach was daily washed out. She improved somewhat in general condition, but the enlargement of the stomach remained unaltered. On March 11th a vertical incision was made above the umbilicus and the stomach exposed. It was found to be dilated, and the pylorus showed a slight circular constriction. A small transverse incision was made in the stomach near the pylorus, and the pyloric orifice explored with the finger. The opening admitted the finger readily, and a depressed ulcer was found on the posterior wall near the pylorus, which was fixed by scar tissue. The opening in the stomach was closed with continuous chromic gut sutures. The anterior wall of the stomach was folded upon itself, and fixed by two rows of continuous catgut sutures. The patient did well after the operation, and for a time the pain and sickness disappeared, but in a month the old trouble began to return, and the swelling of the dilated stomach could be easily made out to the left of the scar. It seemed probable that the stitches holding up the fold in the stomach had given way. On April 20th an incision was made to the left of the scar of the former operation, and the abdomen opened. The stomach was found dilated towards its cardiac end, the pyloric part being adherent to the abdominal wall. The dilated part was drawn forwards, and six silk sutures put vertically in and out through the muscular and peritoneal walls of the stomach. The sutures were then tightened, and a few additional Lembert stitches added to give increased security. The patient did well after the operation, and was discharged in a greatly improved condition of health. She weighed on discharge 6½ stones. She was now able to take any food without pain, and had had no attacks of vomiting. No swelling of the stomach could be felt. Mr. Horrocks remarked that the failure of the first operation was due to the use of catgut sutures which were not sufficiently lasting. He considered the method of folding the stomach vertically instead of horizontally more satisfactory.

MIDLAND MEDICAL SOCIETY.—At a meeting on December 7th, 1898, Dr. W. G. LOWE, President, in the chair, Mr. Frank Barnes, Mr. A. W. Forrest, Mr. T. H. Gibbs, Mr. Stuart Macdonald, and Mr. W. G. Thomas were elected members.—Dr. **STANLEY** showed a child, aged 2 years, who had suffered from marked Pemphigus since birth. The child showed some rachitic tendency, but there was no positive evidence of syphilis. Various methods of treatment had been tried, but without result.—Dr. **STACEY WILSON** showed a specimen of Œsophageal Varices.—Dr. **PURSLOW** showed a Cast of the Vaginal Wall, produced by the use of a quack remedy sold in the form of soluble pessaries. Under the microscope the cast showed that the superficial layer of squamous epithelium had been removed, almost the whole lining of the vagina being represented. An analysis of the remedy made by Mr. John Barclay, showed it to consist of potash, alum, cocaine, borax, opium, slippery elm bark powder, and vaseline. —Mr. **LAWSON TAIT** showed a specimen of Pyosalpinx.—Dr. **PURSLOW** read a paper on 4 cases of Pregnancy complicated with Ovarian Tumour.—Mr. **FURNEAUX JORDAN** read a paper on the Advantages and Disadvantages of Vaginal Cœliotomy.

CHELSEA CLINICAL SOCIETY.—At a meeting on February 21st, Mr. J. **FOSTER PALMER**, President, in the chair, Dr. **HERSCHELL** read a paper on Atony and Dilatation of the Stomach. Atony was an unrecognised cause of many functional gastric troubles, and it was far more important to learn the muscular state of the stomach than to make an exact analysis of its contents. He divided atony of the stomach into three degrees: (1) The stomach took longer than normal to empty itself, but there was no absolute retention of food *débris*; (2) there was occasional food retention; (3) there was constant food retention. The last two groups constituted dilatation. As to its causation he mentioned abnormal relationship between food and stomach, intrinsic weakness of the stomach walls, anatomical conformation of the stomach. The symptoms of atony of the stomach he considered were due to (*a*) local conditions, (*b*) reflex, (*c*) due to malnutrition, (*d*) due to defective absorption of water, (*e*) due to the absorption of toxins. He discussed the methods of physical examination, and illustrated the splashing sound and auscultatory percussion upon a phantom consisting of inflated rubber bags. The only certain sign of dilatation of the stomach was the finding of food residues before breakfast. He laid stress upon the necessity for a prolonged and serious course of treatment, and exhibited Turck's gyromele and his own apparatus for applying medicated hot air and the alternating needle bath to the interior of the stomach. He also discussed electricity, showing an intergastric electrode, massage, diet, and drugs. The President and Drs. Wm. Ewart, Vinrace, and Nitch-Smith took part in the discussion which followed. Dr. Herschell replied.—Mr. A. F. Penny read a paper on the Radical Cure of Hydrocele.

West London Medico-Chirurgical Society.—At a clinical meeting held on March 3rd, Dr. S. D. Clippingdale, President, in the chair, Dr. Andrew Elliot showed a case of Locomotor Ataxia in a woman. There was no definite history of syphilitic infection. The motor and sensory peculiarities of the affection were clearly demonstrated.—Mr. McAdam Eccles showed for Dr. G. P. Shuter a woman who was a survivor from the Faversham detonator explosion. She had lost her sight, had suffered amputation of the left forearm, and was bespattered very widely with fragments of the copper cylinders of the detonators which she had in her hand at the time of the explosion.—The President brought forward a young woman who exhibited a Want of Development of the Left Forearm and Hand. He did not consider it an instance of an intrauterine amputation, but thought that the condition might be accounted for by supposing that there had been a blockage of the arteries of the forearm at a certain level during the period of development. Mr. Rowland Pollock showed two brothers with Multiple Want of Development of both Hands and Feet. Their father, another brother, and a sister had similar deficiencies. Mr. McAdam Eccles also presented a man with a marked Arrest of Growth of the Right Upper Limb, and ventured the opinion that most of such cases were dependent upon some unknown influence at work upon the formative cells, and not as the result of either arterial or nervous lesions before birth. Remarks on these cases were made by Messrs. H. P. Potter, E. P. Paton, P. Abraham, F. Savery, W. C. Musson, and Vaughan Pendred.—Mr. Brindley Jones showed a young man who presented a very deep Sulcus above and behind the upper part of the manubrium sterni. This had resulted three years ago after a swelling in this region had been explored with a needle and pus withdrawn. Mr. McAdam Eccles suggested that the condition might be the result of an abscess of the region, a congenital cyst, or of some affection of a persistent thymus. Mr. E. P. Paton rather inclined to the view that it was possibly of the nature of a very low thyro-glossal duct cyst, and did not think that much good would be obtained from a plastic operation.—Dr. Andrew Elliot showed for Dr. Seymour Taylor a man who presented many of the symptoms of Myxœdema.—Mr. McAdam Eccles brought forward a case of an adult man who had a very marked Nævoid Condition of the Penis and Scrotum. This had existed since birth, but did not appear to give rise to any inconvenience.—Dr. Vaughan Pendred showed: (1) A girl, aged 19, who had had most marked symptoms of what had seemed to be Pseudo-hypertrophic Paralysis, but who had now very considerably improved; he stated that it might possibly be an instance of a congenital syphilitic condition of the muscular system of the affected parts; (2) a young woman whose Lower Jaw and Hands had begun to increase very perceptibly in size after repeated attacks of bronchial trouble; he thought that the case was probably one of commencing acromegaly. Dr. Arthur Haydon considered that in all such cases it was advisable to obtain some information as to the measurements of the pelvis, so that if necessary the changes in the bones of this region might be known for obstetric purposes.—The series of cases of deformities of the extremities were most successfully demonstrated to the members present by Dr. F. H. Low on the fluorescent screen.

Nottingham Medico-Chirurgical Society.—At a meeting held on March 1st, Mr. T. Davies Pryce, President, in the chair, a paper was read by Dr. T. W. Noble on Joint Affections in Locomotor Ataxia. He described an interesting case which had been under his care for the past two years. A woman, aged 39 years, with a history of syphilis, had been ataxic in her walking for less than a year before the onset of the swelling in her right knee. The effusion reached its maximum size in three or four days, and by the end of three weeks there was much deposit of bone salts. The bony growth had since been gradually absorbed, giving rise to an outward and upward dislocation of the tibia on the femur, the outer condyle of the femur, and the inner tuberosity of the tibia having disappeared. The morbid anatomy of the joint was described, also that of the spinal cord, and the theories of the causation of the joints being so suddenly and apparently capriciously affected were discussed. Contrasting the tabetic affection of the joint with rheumatoid arthritis, the differences were chiefly: (1) the sudden onset; (2) the comparative painlessness; (3) the size of the joint affected; (4) the affection of one joint only as a rule. The foregoing being characteristic of the tabetic joint affection.—Mr. Lawes showed a patient suffering from Ophthalmoplegia Interna. He considered that this case supported the view that the paralysis was due to an affection of the bulb.—Mr. R. C. Chicken showed: (1) A case of Compound Depressed Fracture of the Skull produced by a kick from a horse; the patient was a child, aged 6 years; he had been trephined three times in all; once, soon after the accident, and twice subsequently for paralysis which remained; when shown he was perfectly well; (2) a Small Foreign Body which had lodged in the Bronchus of a child producing intense dyspnœa and lividity, with coughing and other urgent symptoms. It remained in the bronchus for a day or two, and was then coughed up; it proved to be a piece of walnut; a curious feature of this case was that the impaction of the foreign body in the bronchus was followed by dulness over the upper part of the right lung in front.—Mr. Willis showed a Cystic Adenoma of the Thyroid which he had removed by operation from the patient he had shown at the previous meeting; the incision for the removal had been made down the anterior border of the sterno-mastoid, and when the capsule had been defined enucleation was not attended with any great difficulty.

Association of Registered Medical Women.—A meeting held on March 7th, Mrs. Stanley Boyd, M.D., Vice-President, in the chair, was devoted to pathology.—Mrs. Flemming, M.D., pathologist to the New Hospital for Women, gave a short account and classification of Diseases of the Ovaries, and showed sections illustrating the various conditions. Among the specimens shown and described were several examples of malignant disease, varieties of adenomata, fibromyomata, and cysts; also tuberculous disease and other examples of inflammatory states.

Folkestone Medical Society.—At a meeting on March 8th, Dr. T. Eastes, Vice-President, in the Chair, Dr. Dodd brought forward the question of the liability of medical men to actions for damages brought against them after signing lunacy certificates. He suggested that in all suitable cases the relatives should be asked to sign an agreement in which they covenanted to indemnify the medical man for all losses or expenses that might ensue if an action were brought against him. Even if one belonged to a medical defence society, it would much simplify matters if an agreement of this kind were signed. A memorial from the Corporate and Medical Reform Committee was, after some discussion, ordered to lie on the table. It was, resolved that steps should be taken to ascertain the number of midwifery cases in the town attended by unqualified midwives, each member being asked to put down on an unsigned slip of paper the number of cases he attended in one year. Then the whole would be added together, and the total deducted from the registered birth-rate. A resolution condemning the recent Vaccination Act, forwarded by the Liverpool Medical Institution, was adopted. The following took part in the discussions: Drs. Barrett, Chambers, Dodd, Eastes, Fitzgerald, Gilbert, Larking, Murdoch, Powell, and Sworder.

Norwich Medico-Chirurgical Society.—At an ordinary meeting on March 7th, the following resolution, forwarded for consideration by the Honorary Secretary of the Liverpool

Medical Institution, was endorsed by the Norwich Medico-Chirurgical Society:

> That the members of the Liverpool Medical Institution are of opinion that the Vaccination Act, 1898, was enacted in direct opposition to the finding of the Royal Commission, and that the operation of the Act will prejudicial to the public safety, and that its amendment is urgently required.

It was also resolved to send a copy of this resolution to the members of Parliament for Norwich and the county of Norfolk.

REVIEWS.

THE LONDON WATER SUPPLY. By ARTHUR SHADWELL, M.A., M.B.Oxon. London: Longmans, Green and Co. 1899. (Crown 8vo, pp. 282. 5s.)

THIS is a well-printed, gracefully-written little book, on a subject of more than ordinary interest at the present time. The book contains eleven chapters, a short preface, a chronological table, and an appendix containing extracts from the reports of the Balfour Commission and the East London Local Government Board Inquiry. Passing over the introductory chapter, which denounces all who have ever grumbled against the London water companies, we come to one of some historical interest on the origin of the eight companies who now practically monopolise the distribution of water in the metropolis. In 1582 "Peter Morrys obtained permission from the Corporation to pump water from the Thames into the City by means of water wheels placed in the first arch of London Bridge, and driven by the tide." In 1613 the New River brought water to London from springs in Hertfordshire. The greater number of the companies, however, date from the earlier part of the present century, or the two last decades of its predecessor.

The third chapter treats of the growth and improvement of the supplies, and shows how their extension at the first was by supplying the intervening houses, which gradually filled up the space between the centres of the population whose wants they were at first authorised to satisfy, and how, later, they came to serve the outer regions, until now the eight companies supply water over an area of 514½ square miles.

> Expansion has been accompanied by an equal improvement in the supply; and it is only fair to say that the companies have never needed compulsion in this respect. In many instances one or other of them has taken the initiative in introducing important improvements, and when suggestions have been made from outside, or have been adopted by Parliament, they have always been promptly and energetically carried out. (P. 29).

It is pointed out that at first people were more concerned to get water laid on to their houses at all than as to its purity. They were accustomed to the tidal water of the Thames, never a pellucid stream, and even that they had to fetch. However, "having got the water, people wanted it first cheaper and then better." In the *Dolphin*, a pamphlet published in 1821, it was pointed out that

> the water taken up from the river Thames, between Chelsea Hospital and London Bridge, for the use of the inhabitants of the metropolis, being charged with the contents of more than 130 common sewers, the drainage from dunghills and lay stalls, the refuse of hospitals, slaughter-houses, colour, lead, gas, and soap works, drug mills and manufactories, and with all sorts of decomposed animal and vegetable substances, rendering the said water offensive and destructive to health, ought no longer to be taken up by any of the companies from so foul a source.

A Royal Commission in 1828 found that "many of the complaints respecting the quality of the water were well founded," spoke favourably of filtration as a possible remedy, but recommended a change of intake. Within a few years all the companies concerned "had either moved their intakes higher up, or constructed subsiding reservoirs or filter beds."

The credit of playing the pioneer in filtration on a large scale is due, it seems, to the Chelsea Company. In 1852, following the report of another of the numerous Royal Commissions that have sat upon the subject, came the Metropolis Water Act.

> All Thames intakes were to be moved above Teddington: all reservoirs within five miles of St. Paul's to be covered; all water for domestic use to be filtered, unless pumped from wells: no new sources to be adopted without the approval of the Board of Trade; complaints, as to quantity or quality to be the subject of investigation by the Board of Trade......... Since that time the water supply of London has been the subject of increasing surveillance and control. Numerous public inquiries have taken place, all of which have gone to confirm the action of Parliament in 1852 with regard to the sources of supply.......... The general quality of the water provided by the London companies has emerged successfully from every serious investigation down to the present day.

On the same page on which the writer makes this rather strong statement, after telling us that the Commons Committee of 1867 affirmed the satisfactory character of the water supply, he goes on to say that the Duke of Richmond's Commission in 1869 pronounced in favour of the existing sources, *though they complained that filtration was not efficiently performed*. The italics, of course, are ours.

In Chapter IV the author discusses the "present supply," both as to quantity and quality, and concludes "that the London supply is actually a good and wholesome supply according to all existing criteria." After a few pages devoted to money matters, he in the next chapter compares the position of London in the matter of water supply with other towns, especially as to quantity, quality, and cost. He argues, from the low London death-rate from typhoid as compared with some of the provincial towns, that the water is above reproach. At least this is what we suppose he intends us to understand from such an antithetical sentence as the following: "But then Glasgow does not filter its water, and the typhoid death-rate is double that of London." The chapter concludes with the statement that the author is personally acquainted with the water supplies in Paris, Berlin, Vienna, and St. Petersburg; they are all inferior. He adds: "In fact, I can only find one town with a better supply all round, and that is Brighton."

The Future Supply and the Balfour Commission, and the Case of East London, occupy the two following chapters, while the Question of Public Control is treated in the eighth. The unfortunate position of the poor Londoner is next shown, and how he is "between two stools"—the companies on the one hand, who want to extend and improve their existing works, and that unspeakable, shudder-causing, huge monster the London County Council, which, since it wants itself at some time to acquire the whole undertaking, does not see the force of having to pay for improvements which it regards as in a wrong direction.

The tenth chapter—1898 and the Present Situation—scarcely exhibits the author in a judicial mood, though it contains the statement that "sensible people will await the result of the inquiry (Lord Llandaff's Commission) before making up their minds." The Suggestion, in the final chapter of this interesting little work is that the Government, rolling into one the Local Government Board and the Board of Agriculture, with a Minister of Public Health to preside over the amalgamated departments, should hand over to them the care of the water supplies of the country, should keep municipalities severely within their own bounds, and prevent their continual struggles in Parliament for fresh reservoirs and mountains new, by settling *ex cathedrâ* who is to have what. "The true solution is to make the sources of water supply, their distribution and protection, a department of Government." The book, as we have said, is an interesting one. The writer has, of course, a right to his own opinion. Most of the work, however, has so much the air of special pleading that we are glad to have the author's assurance that he has not a penny at stake. His warmth is from the strength of his conviction.

SQUIRE'S COMPANION TO THE BRITISH PHARMACOPŒIA: comparing the Strength of its various Preparations with those of the United States and other Foreign *Pharmacopœias*, to which are added other not official Preparations, and Practical Hints on Prescribing. By PETER SQUIRE. Seventeenth Edition. Revised by PETER WYATT SQUIRE, F.L.S., F.C.S. London: J. and A. Churchill. 1899. (Roy. 8vo, pp. 850. 12s. 6d.)

A NEW edition of this useful and much-used work of reference, so well known to prescribers and chemists, has just been issued, and will be cordially welcomed by all who are acquainted with the merits of its predecessors. The present volume is of special interest, as it embodies all the changes incorporated in the 1898 *British Pharmacopœia*, with much valuable information, comment, and criticism, suggested by actual experience of the value and effects of these changes.

The arrangement, although improved in certain minor details, is essentially the same as in former editions. Under each heading the paragraphs appear in the order of solubility, medicinal properties, dose, prescribing notes, incompatibles, official and non-official preparations, antidotes, foreign *Pharmacopœias*, description, and tests, while at the end of each article there is a more detailed account of all the chief preparations and forms in which the drug is used. Under this last heading is included a large amount of trustworthy information regarding numerous formulæ which is not readily obtainable from any other source. Numerous tables, a synopsis of materia medica, and an account of British and foreign spas, are given as in the former editions. There has been added a short account of therapeutical agents of bacterial origin by Dr. R. T. Hewlett, which deals shortly with antitoxins, tuberculin, vaccines, mallein, and nucleins.

On examining the different articles, it is evident that much care has been expended in a thorough revision, while a few of them have been almost entirely rewritten, thus bringing the whole volume thoroughly up to date. The changes made by the new *Pharmacopœia* are clearly indicated, and, when important, special attention is drawn to them. Owing to the simplicity of the arrangement and thorough indexing, reference to any subject or preparation can be made very rapidly and easily. The present edition is well calculated to maintain the deservedly high reputation of those which have preceded it.

THE BLOOD: HOW TO EXAMINE AND DIAGNOSE ITS DISEASES.

By ALFRED C. COLES, M.D. London: J. and A. Churchill. 1898. (Demy 8vo, pp. 260. 10s. 6d.)

FOR years past the want of a practical book on the methods of staining and examining blood has been felt in this country. From his own observations and from a large number of scattered articles the author has produced a volume of convenient size which meets this deficiency.

The first part, on methods of examining the blood, is excellent, and contains many useful suggestions, but there does not appear to be any mention of Oliver's hæmoglobinometer, which is one of the most accurate forms of this instrument in use. The various staining methods for blood films are fully described in a practical manner. Too often in books of this class the worker is embarrassed by the number of different methods, and is given no indication as to their relative values; but the author of this volume gives his own opinions as to their respective merits. He prefers to use slides rather than coverglasses in preparing blood films. We fail to see any advantage in this, while the disadvantages are fairly obvious, the manipulation in staining, etc., being more difficult than with coverglasses. We entirely agree in his estimate of the value of hæmatoxylin for staining blood films as giving most reliable results, especially in the examination of malarial blood. An excellent account is given, with good illustrations, of the normal characters of the corpuscles. Here, as indeed throughout the book, Dr. COLES has given, in addition to his own observations, a capital review of the work of others—a point which we imagine will be appreciated by many who are not familiar with the original articles, especially those of quite recent date.

The second portion of the book is devoted to the condition of the blood in various diseases. For a work of this size this is admirably done. We notice in particular the section on the forms of leukæmia. Malaria might with advantage have been dealt with more fully. The illustrations throughout are good and sufficient. We can congratulate Dr. Coles on having written an excellent handbook on a difficult subject.

NOTES ON BOOKS.

NORTHERN UNIVERSITY THESES.

Studier öfver de histologiska forandringarna i digestionskanalen vid den perniciösa anämin och särskildt vid bothriocephalus-anämin. Akademisk afhandling af WILLIAM MÖLLER. [Researches on the Histological Alterations in the Alimentary Canal in Pernicious Anæmia, and specially in Bothriocephalus-anæmia.] (Helsingfors: J. C. Frenckell and Son. 1897. Demy 8vo, pp. 178, 2 plates.)—In this graduation thesis Dr. W. Möller discusses in four chapters the early observations on the histological changes in the digestive tract in pernicious anæmia, which he has gathered together with great assiduity from literature, the methods of histological examination used by others and by himself, and the details, clinical and pathological, of 13 cases, which he was able fully to investigate. Among these 13 cases there were 10 which belonged to the group of bothriocephalus anæmia, and 3 to that of the so-called true pernicious anæmia; and in the former the microscopic changes in the stomach and intestines were more marked than in the latter. In some cases only the small intestines were available for examination; in others also the large intestines and stomach. These changes consisted chiefly in glandular atrophy, and are well shown in the plates, and in chronic catarrh—for example, chronic gastritis. It is noteworthy that in Case XIII—that of a woman 28 years of age, in whom the anæmia was associated with the presence of the bothriocephalus latus—the structure of the small intestine and stomach was normal; but here the disease had lasted only three weeks. The thesis is a useful contribution to our knowledge of the pathological anatomy of the form of anæmia associated with tapeworms in the intestines.

On Stenos och Obliteration af Aorta vid eller i Närheten af Ductus Botalli. [On Stenosis and Obliteration of the Aorta at or in the Neighbourhood of the Ductus Botalli.] Akademisk afhandling af EMIL WADSTEIN. (Lund: E. Malström's boktryckeri. 1897. Demy 4to, pp. 122, 3 plates and 1 woodblock.)—Dr. Wadstein has done good service to the inquiry into all the morbid conditions of the aorta which depend upon congenital malformations by his laborious compilation and analysis of 113 cases (chiefly from literature) in which the aortic anomaly was probably due to the influence of the ductus arteriosus and to alterations in its normal mode of absorption. The cases were those of individuals varying in age from a few minutes to 92 years, and among them were several in which the death had been caused by aneurysmal and other conditions directly due to the anomaly in the ductus. Illustrations are given of three or four cases, including an interesting one from the pathological collection in Lund belonging to Professor Odenius; in this there was congenital stenosis of the aortic isthmus, the ductus Botalli was open, and there was a sacculated aneurysm of the aorta. The questions of clinical features, diagnosis, prognosis, and pathogenesis are exhaustively discussed; and it is noteworthy that in 15 cases death occurred suddenly, and in 13 of these it was due to rupture of the aorta, preceded in 8 instances by aneurysmal dilatation. The subject is specially interesting as showing the far-reaching effects of slight alterations in the involution of transient fœtal structures.

Om den s.k. prostatahypertrofiens behandling. Akademisk afhandling af Björn G. O. FLODERUS. (On the Treatment of So-called Hypertrophy of the Prostate. Upsala: Nya tidnings aktiebolags tryckeri, 1897. Roy. 8vo, pp. 314-204, 3 plates).—Dr. Floderus, in his graduation thesis, has presented what is little less than an exhaustive study of the subject of so-called hypertrophy of the prostate gland and the various methods of treatment that have been proposed for its cure. In the first part of the work, which extends to 314 large pages of closely printed text are discussed in order, the etiology of the condition with special reference to Harrison's hypothesis and the homologies between the state of the prostate and that of uterine fibromyomata, the pathological anatomy, the general symptomatology and treatment, and the special symptomatology and treatment, with reference more particularly to the complications in the genito-urinary organs. Then the different kinds of operative interference are fully and critically considered; the old plan of treatment by catheters, either intermittent or (more recently) by continuous aspiration according to Cathcart's method; puncture of the bladder, either by the prostate or by the rectum, perineum, subpubically or suprapubically; urethral and rectal operations, including urethral galvano-cautery or Bottini's operation and urethral prostatotomy or Mercier's operation; perineal operations such as prostatotomy and prostatectomy and lateral prostatectomy or Dittel's operation; epicystotomy and ventrifixation of the bladder; suprapubic and suprapubic-perineal prostatectomy; and the indirect vascular operations, such as Wyman's operation (circumcision of the prostate) and Bier's operation. Finally, the new methods, known as the sexual treatment of prostatic hypertrophy, are examined first on purely theoretical grounds, and then on the question of results. The second part of the book contains elaborate tables and a bibliography with several hundreds of references. The work is one worthy the study of all surgeons who wish to contrast the results of the old and the new in the operative treatment of this very troublesome complaint of advanced age.

Om dissekerande hajärtaneurismer. Akademisk afhandling af ARTUR EDVARD VESTBERG. [On Dissecting Aneurysms of the Heart.] (Stockholm: P. A. Nordtedt & Söner. 1897. Demy 8vo, pp. 128; 2 plates). Dr. Vestberg's dissertation is chiefly valuable for the complete account given in it of an interesting case of dissecting aneurysm of the heart in a woman aged 32, whose condition was diagnosed as one of aortic incompetence with aneurysm of the arch of the aorta, and perhaps mitral incompetence also. There was in addition chronic nephritis, uræmia, and bronchitis. In the plate the opening of the dissecting aneurysm just below the aortic valves is shown, and the author is at great pains to prove from anatomical considerations how it is that the periaortic space in the heart is the specially predisposed spot for the occurrence of such an aneurysm. The subject in general is also fully dealt with.

A fourth edition of *Ambulance Lectures; First Aid to the Injured* (London: H. K. Lewis. 1899. Fcap. 8vo, pp. 164. 2s.), by Mr. SAMUEL OSBORN, F.R.C.S., Chief Surgeon to the Metropolitan Corps of the St. John Ambulance Brigade, has been published, and will be found most useful both to lecturers and students of "First Aid." It has already been translated into Chinese, French, German, Greek, Italian, Japanese, Spanish, and Hindustani—probably a unique record in the history of ambulance lectures. The latest edition is dedicated by permission to H.R.H. Princess Christian of Schleswig-Holstein, to whom so much of the popularity of the study of "immediate relief" to the injured is due. We have so lately favourably reviewed a previous edition of this book that there is no necessity to say more than that the manual just published forms a complete work deserving of the highest praise, and fulfilling in every respect the requirements made upon it.

Messrs. John Wright and Co., of Bristol, have issued a neat little pocket book (2s. 6d.), in which practitioners can enter their own private formulæ or any prescriptions of interest which may come under their notice and seem worth recording. It is probable that most men in active practice keep some such collection for use in exceptional cases. The common practice of jotting down such notes on the back of an envelope or any stray scrap of paper has many disadvantages, and a memorandum book of this description, with its accompanying posological tables as a reminder of doses, cannot fail to prove useful. It is well bound, and the cover seems calculated to stand many years of use.

REPORTS AND ANALYSES

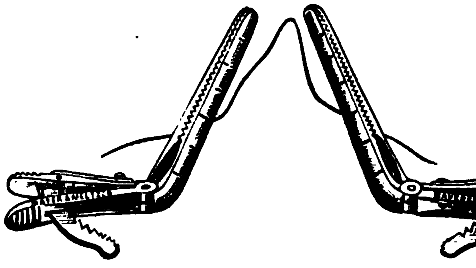
AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICAL AND SURGICAL APPLIANCES.

Hare-Lip Forceps.—The forceps illustrated in the accompanying drawing have been made by Messrs. Mayer and Meltzer at the suggestion of Dr. Carline, of Lincoln. The principal feature is the scale on the blade of the forceps. The instruments are to be used in the following way: The blades are placed accurately on the proposed line of incision, the points of course meeting. The scale shows that the incision will be of equal length on either side. The sutures are now inserted, also by the assistance of the scale, and drawn out of the way; the knife is swept along the edge of each forceps, the sutures are then pulled upon and the lips of the wound drawn together; the forceps being now removed the sutures are tied. It is claimed that the coaptation will be perfect, and the hæmorrhage will have been completely controlled throughout, this latter a matter of great importance in hare-lipped children. The forceps are intended to be used in this way only in ordinary straightforward cases of hare-lip or epithelioma, but apart from the scale they may be used as the ordinary forceps for controlling hæmorrhage in lip operations, when the shortness of the handles will be found a distin advantage over the older forms of the instrument. The necessity for passing the sutures before cutting is due to the fact that when the lip is shaved off at the edge of the forceps the latter loses its hold, and would most probably slip off before all the sutures had been inserted. In the illustration the forceps should have been depicted further on the lip, with the points meeting.



An Aseptic Pocket Case.—Messrs. Brady and Martin, Northumberland Road, Newcastle-on-Tyne, have made a small pocket case, measuring 4¼ × 2 × ⅝ inches and weighing 6¾ ozs. It is, therefore, of very convenient size for the pocket or bag, and is enclosed in a purse-like leathern bag. The case and all the instruments are of metal. The case is of German manufacture, the instruments are of the best Sheffield steel. On each side of the case is a rack into which the instruments fit compactly and neatly, so that each separate instrument is secure in its place. The case contains scissors, scalpels, forceps, straight and curved bistouries, probe director, scraper, and seven needles. There is a handle common to the knives, scraper, and needles. The locking of this handle is simple in its contrivance and very effective. The instruments can be readily taken to pieces and fitted together. They are all of excellent workmanship and finish. The addition of a small tube of sterilised catgut would have increased the usefulness of the case, as it is convenient for the practitioner to have everything necessary for the simpler procedures easily accessible. So far, however, as neatness, compactness, and good workmanship are concerned, the "aseptic pocket case" is all that could be desired.

Ethylate of Sodium in Capillary Tubes for the Treatment of Nævi.—Dr. E. Mansel Sympson (Surgeon to the Lincoln County Hospital) writes: One practical difficulty I have found in using ethylate of sodium for this purpose is that after the bottle has been once opened the glass stopper becomes so tightly fixed that the bottle neck has to be broken to get any more of the contents thereof. Hence some years ago the late Mr. Bowen, our hospital dispenser, and I hit upon the plan of putting the solution in capillary tubes, which makes its use very easy and economical. I have got Mr. W. S. Hill, chemist, of Lincoln, to prepare the tubes for the hospital and myself.

HEROIN, ETC.

MESSRS. J. F. MACFARLAN AND CO. (Abbey Hill Chemical Works, Edinburgh) write: The publication of notes on heroin in the medical journals suggests a brief comment from us. The introduction and advertising of well-known esters of morphine under such fanciful names, as "peronin," "dionin," and "heroin," may mislead some members of the medical profession into the belief that these are new and proprietary preparations. As a matter of fact, they are all prepared and supplied under their proper names by ourselves and other competent manufacturers. The chemistry and physiological action of the typical substitution compounds of morphine was fully investigated by Mr. Dott and Dr. Ralph Stockman.[1] Professor Stockman found that acetyl, diacetyl, and benzoyl morphine had all practically an identical action. Whence it is improbable that one of them (whether called "peronin" or "heroin") possesses a therapeutic value in excess of the others.

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[1] *Proceedings R. S. C.*, 1883-90; and other communications.

THE PREVENTION OF TUBERCULOSIS.

CARDIFF.

A DEPUTATION from the Cardiff Medical Society waited upon the Health Committee of Cardiff on February 28th with a view of inducing that body to adopt measures to reduce the ravages caused by tuberculosis, commonly known as consumption. Dr. Rhys Griffiths (President), Dr. Patterson (Secretary), and Dr. Fiddian (Treasurer), addressed the Committee. Supporting the speakers were Drs. Herbert Vachell, Alfred Rees, Fred Davies, Temple Morris, Corrigan, Buchan, and Musgrave.

The Chairman (Alderman Jacobs) thanked the deputation, and proposed that they should have a series of special meetings. This course was agreed to.

In a special report Dr. Walford, the medical officer of health, said the death-rate per 1 000 from phthisis and from tabes mesenterica at all ages in Cardiff, 1879-1898, showed an increase (calculating from the average in every period of five years) respectively of 2.89 to 2.07, 2.09 to 1.32 (phthisis), and 0.18 to 0.09 (tabes mesenterica).

LEEDS.

At the meeting of the Leeds Board of Guardians on March 1st, Mr. C. A. Lister presiding, a letter was read from the Halifax Union suggesting a conference with other Yorkshire Boards of Guardians on the subject of the treatment of consumptive inmates in workhouse infirmaries. The Halifax Guardians pointed out the great danger of having such cases mixed with other patients, and the improbable hope of recovery if they were kept in the wards of the workhouse. Their medical officer had, they stated, expressed the opinion that it was desirable to place such cases where fresh air and plenty of it could be obtained. The Chairman considered that a conference on the subject was well worthy of the support of the Leeds Guardians. Mr. Woodhead concurred in this opinion, and moved a resolution expressing the willingness of the Board to join the proposed conference.

Dr. Sims Woodhead gave an address upon this subject at a conference called together by the West Riding County Council, and held in the large Examination Hall of the Yorkshire College, Leeds, on March 10th last, under the presidency of Alderman Sugden. Some 800 medical officers of health of the West Riding, veterinary surgeons, agriculturists, and others interested in the prevention of tuberculosis attended.

After a brief allusion to the lesions produced in the lungs by the tubercle bacillus, Dr. Woodhead discussed tuberculosis of the udder in the cow. Usually one or other quarter is enlarged and hard, and yet there is no tenderness or pain. A pig fed with milk to which tubercle bacilli has been added develops the same tuberculous lesions as a pig fed on milk from a tuberculous udder. A boiling temperature destroys the tubercle bacillus. Milk is the one article of diet which under ordinary circumstances is not submitted to the process of cooking. It is because so much raw milk is drunk that danger lurks in the tuberculous udder, and it is for this reason that dairy cattle should be kept under the most rigid observation.

The lecturer, while not denying the rare possibility of congenital tuberculosis, maintained that heredity can account for very few; in fact, for practically none of the cases of tuberculosis in man or animals. Reference was then made to the interesting experiments made in Copenhagen, in which Professor Bang was able to breed healthy animals from tuberculous stock by feeding them with milk free from tubercle bacilli. Tuberculosis was conveyed by meat in a comparatively small number of cases, yet it was necessary to see that meat was well cooked.

Dr. Sims Woodhead also touched upon the tuberculin test, including compensation, and he alluded to the enormous waste which occurred in attempting to feed up tuberculous cattle.

Finally, emphasis was laid upon the prevention of the spread of the tuberculous virus either from tuberculous patients or animals, special attention being given to the sputum, dust, and also to light and open windows.

A resolution, proposed by Mr. Lipscombe, seconded by Mr. W. Carter (Sheffield), and carried unanimously, contained the following:

> The County Council will, in conjunction with the county boroughs and other sanitary authorities in the West Riding, take steps for promoting uniform legislation for the prevention of the sale or distribution for human consumption of tuberculous food, and especially for the establishment of the systematic inspection of the dairies, cowsheds, and slaughterhouses.

The Yorkshire Branch of the Society of the Medical Officers of Health held their first annual dinner at the Great Northern Hotel, Leeds, on March 10th, Dr. Evans (Bradford) being in the chair. Among the guests present was Dr. Sims Woodhead, who, in response to the toast of "The Guests," referred to one practical outcome of the advance of science, which showed itself in the greatly increased interest taken in such subjects as the prevention of tuberculosis. The large attendance upon the conference that afternoon provided abundant proof of this fact.

The number of medical officers who were present at the dinner was large, and augured well for the success of this social function in the future. Dr. Kaye, Medical Officer of Health to the West Riding Council and Honorary Secretary of the Yorkshire Branch, must have been very pleased with the day's work.

FOLKESTONE.

The Folkestone Medical Society has issued a useful leaflet entitled Hints on the Prevention of Consumption and Instructions to Phthisical Patients.

WORCESTER.

The medical officer of health, Dr. Mabyn Read, has, at the request of the Health Committee, presented a special report on tuberculosis. In it he points out that in the decennial period 1881-90 the registration County of Worcestershire had a lower mean annual death-rate from phthisis than any other registration county in England and Wales. The death-rate for Worcestershire was 1,217 per 1,000,000 living, and that for England and Wales was 1,724. As regards the City of Worcester, Dr. Read gives a table showing that during the period referred to phthisis and other tuberculous diseases combined caused 25 per cent. more deaths than the zymotic diseases; that it was the cause of death in 1 of every 12 persons who died; and that phthisis and the other tuberculous diseases were the cause of death in 1 of every 8 persons who died.

CREWE.

On February 28th a special meeting of the Health Committee was held to consider the question of the prevention of tuberculosis. Dr. Meredith Young, the medical officer of health, laid before the Committee a statement as to the annual mortality from phthisis and other forms of tuberculosis, from which it appeared that the former caused on the average about 35 deaths per annum and the latter about 40 deaths per annum. He also laid before the Committee a programme of preventive measures which he suggested should be carried out.

The Committee, after a lengthy discussion, resolved upon the following:

1. That the medical officer of health be empowered to offer facilities for the bacteriological examination of material from suspected cases of phthisis and other forms of tuberculosis, the result of such examination, if positive, to be considered a notification of the disease, but that no action whatever be taken on receipt of this information except at the request of the medical attendant, the patient, or his relatives.
2. That the medical officer of health be empowered to have the milk supply to the isolation hospital bacteriologically examined from time to time as often as he may deem necessary.
3. That disinfection of houses, bedding, clothing, etc., be done by the Corporation staff free of charge in all cases of tuberculosis when so requested by medical practitioners or by the relatives.
4. That the medical officer of health insert the sum of £25 in the Annual Health Department estimates, to cover the expenses in connection with the obtaining of weekly returns of sickness from all the friendly and sick societies in the borough, and that he formulate at an early date a scheme for obtaining these from the various secretaries, and submit it to the Health Committee.
5. That the medical officer of health draw up a simply-worded handbill on the prevention of tuberculosis, and have this printed and circulated to every house in the town.

6. That the town clerk and medical officer of health write to the Local Government Board asking that the new Dairies, Cowsheds, and Milkshops Regulations framed by the Council should be forwarded as early as possible, otherwise farmers and others concerned would not be able to carry out any necessary alterations at a suitable time.

7. That the Royal Agricultural Society be accorded the best thanks of the Committee for their kindness in forwarding copies of leaflets on tuberculosis in dairy stock, and that the medical officer of health circulate these to every cowkeeper within or around the district.

It may be pointed out that in proposals 1, 2, 3, and 5 recommendations made by the Tuberculosis Committee of the British Medical Association are adopted.

PRIVATE LEGISLATION ON TUBERCULOSIS IN DAIRIES.

The towns of Blackpool, Bootle, Darwen, Leeds, Manchester, Salford, Stockport, and Warrington, are all promoting private Bills containing clauses for the protection of their inhabitants against tuberculosis introduced by milk. The clauses in the several Bills as originally drafted differ considerably, varying from the couple of clauses in the Warrington Bill—the one requiring notification of tuberculosis, milk, or parturient fever in any cow whose milk is sent into the borough, and making the sending of the milk of any such cow penal; the other prescribing compensation to the dairyman for loss in carrying out the requirements of the Corporation—to the much larger powers contained in the seven subsections of the Darwen clause. In all, however, the power of entry to dairies sending milk into the town—whether they be situated within or without the area under the control of the Corporation—is asked for. One town (Leeds) asks for authority to "apply the tuberculin or other reasonable tests." The representatives of the towns named met in Manchester on March 10th, to confer on concerted action, in view of a motion in the House of Commons threatened by Mr. Jeffreys, directing the Committee to reject the clauses *in toto*. A deputation appointed by this conference met on Monday afternoon in London to draw up a joint memorandum on the subject for the use of members of the House. Meantime, however, a communication had been received from the Local Government Board containing suggestions arrived at after conference between that Board and the Board of Agriculture, and the deputation of the corporations was informed that Mr. Jeffreys was willing, if the principle of these suggestions were adopted, to postpone his motion till after Easter, that new clauses might be drawn up embodying these principles. The suggestions were so generally acceptable to the representatives of the towns promoting Bills, that they deputed the Manchester and Leeds representatives present to see Mr. Bryce, of the Local Government Board, get some further explanations on a few ambiguous phrases, and if this was satisfactory give the necessary assurance. Mr. Bryce, with his usually courtesy, received this deputation on Tuesday, and his explanations were so clear and satisfactory that the necessary assurance was at once given. He explained that the Board had agreed that it should be made penal to sell the milk from a cow with a tuberculous udder or showing other marked clinical symptoms of tuberculosis. They conceded the power to take samples of milk within or without the borough, in the latter case a justice's order being obtained if the dairyman refused. In the same way, with the like restrictions, an examination of the dairy might be made, but the cattle themselves were, as in Section IV of the Infectious Diseases (Prevention) Act, only to be examined in the presence of a veterinary surgeon. Isolation of cows affected as above was to be compulsory on notice to the dairyman, but it would appear that the department is opposed to the granting of powers to apply the tuberculin test. Notification of any disease of the udder resembling tuberculosis was to be made compulsory. It was also suggested that, where the notices allowed of it, a clause should be inserted allowing the Local Government Board to prescribe what amount of tubercle in a carcass should lead to its confiscation. The Local Government Board has, as is stated below, issued a circular to authorities recommending—they have no power at present to do more—that the suggestions of the last Tuberculosis Commission as to what meat should be condemned should form the basis of action on the part of meat inspectors, and reminding authorities that it is incumbent on such inspectors to consult their medical officers in cases of doubt or difficulty.

DAIRIES AND THE TUBERCULIN TEST.

We have received from Messrs. Welford and Sons' Dairy Company, Limited, a small pamphlet, which contains the statement that among the regulations adopted for safeguarding the supply of nursery milk is the application of the tuberculin test to the milking stock, which ensures the supply being from healthy animals only. This will be the case if the milk is obtained only from animals which have not reacted when tested. We also notice that the company recognises the necessity for observing sanitary precautions with regard to the ventilation and cubic space of cowsheds. We believe that other companies are giving attention to these points also, and it is within the power of consumers to insist that these precautions should be taken.

DAIRIES, COWSHEDS, AND MILKSHOPS ORDER, 1899.

The Local Government Board have issued under date February 7th, 1899, an Amending Milk Order. It consists, after introductory matter referring chiefly to the Orders of 1885 and 1886, of two articles as follows:

Article 1. This order may be cited as "The Dairies, Cowsheds, and Milkshops Order of 1899."

Article 2. Article 15 of the Order shall be altered so that for the purposes of the provisions of paragraphs (*a*) and (*b*) thereof, the expressions in the said Article which refer to disease shall include, in the case of a cow, such disease of the udder as shall be certified by a veterinary surgeon to be tuberculous; and the Order and the Amending Order, shall apply, and be construed with, the modifications necessary to give effect to this Article.

In a circular addressed to sanitary authorities enclosing the new Order, and dated March 11th, 1899, the Secretary to the Local Government Board advises authorities who have not already made regulations as to dairies and cowsheds to do so, and encloses model forms. He points out that Article 15 of the Order of 1885 provides that the milk of a diseased cow shall not be mixed with other milk, or sold as food, and that a "diseased cow" now includes an animal with tubercle of the udder.

The rest of the circular deals with meat inspection, and recommends generally the acceptance of the suggestions of the Tuberculosis Commission as to what carcasses should be condemned for that disease.

DUBLIN SLAUGHTER YARDS.

Dr. Charles F. Moore has addressed a letter to the *Irish Times* in which he points out that Ireland is naturally one of the most healthy countries, and quotes in support the observation of the Registrar-General, Dr. Grimshaw, C.B., "that, roughly, the eight Western counties of Ireland might (as they contain few large towns) be taken as healthy death-rate districts, the remaining districts being taken as less healthy death-rate districts. The death-rate for the former was only 14, that in the latter 19.1 per 1,000 (living) for the decade 1881-90." Dr. Moore observes that although the Royal Commission of 1879 condemned the existence of slaughter-houses in Dublin, there still exist no fewer than sixty. The abattoir which was built was placed outside the city bounds, and the Corporation cannot compel its use by the butchers. He thinks that all these centres help to propagate tuberculosis, owing to the prevalence of disease in cattle, and he suggests that all private slaughter-houses should be closed; that two new abattoirs should be constructed, one at the North Lotts, East Wall, and a second on the Pigeon House Road. The offal could at once be utilised, and prevented from affecting the drains. All the beef should be inspected.

We note that Dr. Moore promises to deal with the subject of the inspection of milch cows, We hope he will try to do something for the removal of dung yards from the city. There are at present scores of these, with thousands of cows, and their condition is very unsanitary. The Dublin Corporation is afraid to move towards the obvious remedy of abolition. Once they introduced such a clause into a Bill, but the dairymen soon made it clear that the councillors would endanger their seats by proceeding with the measure. So the clause was withdrawn. Thus it is that in this matter the dairymen rule Dublin, even in opposition to the views of the sanitary officer, Sir Charles Cameron, C.B. Meanwhile, expensive changes go on in other things at the cost of the ratepayers, and the filthy yards are allowed to exist.

THE UNITED STATES.

On January 25th a Bill was introduced in the Assembly at Albany which will allow cities of the first class to establish, equip, and maintain outside of their corporate limits, and, with the approval of the State Board of Health, hospitals for the regular treatment of consumptives.

The question of appropriating 150,000 dols. for the work of exterminating contagious diseases in domestic animals recently came before the Committee on Agriculture. There was some disagreement among those discussing the measure as to the efficacy and necessity of tuberculin as a diagnostic agent. Dr. Peters, Chairman of the Cattle Commission, replied vigorously to the adverse criticism. No definite conclusion has been reached in the matter.

CHICAGO.

Chicago is said to be the first city in the United States to build and equip a public charitable hospital for consumptives.

The Cook County Hospital for such patients is now open at Dunning. The Dunning Hospital for Consumptives was built and equipped at a cost of 75,000dols., and can accommodate 350 patients. It admits only such patients as are dependent upon the county. The structure was designed especially for the purpose, and every ward arranged to admit light and air in greatest quantity. In Chicago 2,500 people die of consumption annually.

A New Order of Nurses for Consumptives.

The Rev. Father James O. S. Huntington, Superior of the Order of the Holy Cross, a congregation of celibates of the Episcopal Church, having their mother-house at Westminster, Md., proposes the establishment of a new religious sisterhood, whose life-work would be to nurse consumptive patients.

The Detection of Tuberculous Infection in Secondhand Clothing.

At the annual meeting of the Medical Society of the State of New York, held recently, Dr. William G. Bissell, of Buffalo (*Medical News*, February 4th), read a paper on this subject. His conclusions were based upon the result of investigations carried on by him in the Health Department of Buffalo, regarding tuberculous infection. In connection with military duties his attention had been called to the fact that several members left the organisation on account of tuberculosis. At that time the uniforms and overcoats when discarded by an outgoing member were assigned to the next new recruit. According to his views, these uniforms of men who had contracted tuberculosis were capable of transmitting that disease to the next wearer. He conducted a series of experiments to prove this. Uniforms were secured, their pockets removed and labelled; they were then washed, and the resulting washings were placed in a centrifugal machine until a sediment was obtained; this sediment was diluted and injected into 16 guinea-pigs; 7 of these died of acute septic disturbances; of the 9 remaining animals, 5 recovered, but 2 of these died later of tuberculosis. The animals which contracted tuberculosis contracted it through the inoculation of material obtained from the pockets of the discarded uniforms. This proves the great danger of communicating tuberculosis by clothing worn by consumptives. Dr. H. R. Hopkins, of Buffalo, brought forward a resolution, which was carried, that the Society approve the matter of municipal control of dealers of secondhand clothing, and refer it to the Committee on Legislation.

A "Crystal Palace" Sanatorium.

Dr. A. P. Reid, of Reidvale, Middleton, Annapolis County, Nova Scotia, has designed a sanatorium which he thinks "will obviate objectionable, and secure desirable, results, and this at a cost of less than half of a modern hospital building." The following is his description of it:

It is, in fact, a "crystal palace" of iron and glass, a house within a house, or a house surrounded by verandahs, also of iron and glass, and each open to sunlight and air from all sides. The verandahs, as well as the interior of the building, can have any or all the windows either closed or opened. This ensures the most perfect ventilation in mild weather, and in the inclement season a system of very free distribution of air, taken from the outside, warmed to a temperature of 60° or 70°, and distributed in abundance to the exterior or the interior of the building at the will of the director.

This is no theory. I have a house that for four years past has been so warmed from the outside or verandah which surrounds the house, and it it leaves nothing to be desired. The temperature of the interior or main building varies but little winter or summer (as might be expected). In hot weather it is cool, and in the cold season, as it is protected by the verandah from radiation, and this being filled with an abundance of warm air distributed by very large air ducts, there is no such thing as a cold draught, even though all the doors and windows of the interior building are open, which they are the most of the time the year around. The plants flourish winter as well as summer, though there is only the thickness of a pane of glass between them and the frost (at times below zero) outside. In the daytime when the sun is shining the temperature in verandah rises sometimes to 80°.

In order that the heating shall be under perfect control, no matter what the temperature outside or the direction of the wind (a difficult thing to regulate in hospitals as now constructed), and as well to utilise the best modern methods in addition to the warm (not hot) air heaters, there are hot-water heaters that can distribute the hot water at such temperature and in such volume as may be desired to the interior or hospital building proper. This is secured, not by coils, but, owing to the construction of the building, all the columns and supports along the sides, ends, and centre are iron tubes in connection with the hot-water heaters. Coils with dust and dirt accumulation are done away with, and the heat is equally distributed in sides, ends, and centres, leaving no place for collection of dust or dirt, which are unavoidable in any system of coils, stoves, fireplaces, and such devices. The verandahs do not require hot-water heating.

The chimneys at each end pass through the water closets and bath rooms, having a ventilating flue in each stack alongside of the smoke flue so that it can be always warm—in cold weather by the waste heat of the chimney flue, and in warm weather by a stove or heater at the foot of the ventilating shaft, thus ensuring a steady draught winter or summer. There need be no cellars or basements, as they are of no use, and are expensive to construct and drain. The first, or ground story, should have concrete floors and walls, giving accommodation in the centre to the heaters, stairway and elevators, and around the walls to the apartments for house-staff, nurses and employees, dispensary, waiting rooms, offices, bacteriological laboratory, etc. The stairway and elevators extend to the roof promenade, giving access to it and to each storey. The roof can be a flat promenade surrounded by a railing and protected by an awning (to be taken down in winter) against sun and rain. At the highest point in the centre of the building, supported by the main iron columns, there should be a large water reservoir to furnish water by gravity, for all purposes, and to be kept full by a steam pump or other means. The two two upper storeys are the hospital proper. The promenade verandahs (sun baths) are for patients, and are calculated at 1,000 cubic feet for each 40 patients (wards 70 × 30 × 10 feet each storey); and if verandahs be included extending 10 feet all round outside the interior building, 2,000 cubic feet per patient.

All the walls are windows, except for 2 or 3 feet next to the floor, to be opened if desired. There need be no partitions or lath and plaster. The floor of the upper storey is the ceiling of the lower one, supported by sleepers resting on the iron framework. If desired the whole flat can be one ward or room, or each patient can have perfect privacy by adjusting hanging screens on all sides. These can reach from a few inches above the floor up to 6 feet, so that circulation of air is not impeded. By opening the windows and using a jet of compressed air every corner and every place can be quickly, easily, and perfectly cleaned out. The laundry, kitchen, etc., should be in a detached building. These details can be modified in many ways; but what I claim as the improved hospital construction is a building supported by an interior iron framework, which, being tubular, gives greatest strength for a given weight. It serves at the same time as a means of distributing water to modify the temperature, either to warm or cool the interior. Verandahs also of light iron framework surround the hospital building at a distance from its walls of 10 or more feet. All the walls of the hospital and verandahs can be windows, to be closed or opened to any desired degree, with a supply of warm pure air in winter brought in by large conduits, and especially distributed to the verandahs so that cold draughts can be avoided when so desired.

THE NEW VACCINATION ACT IN OPERATION.

W. C. B.—The new Vaccination Order does not apply to Scotland. Our correspondent should obtain a copy of the Vaccination (Scotland) Act, 1863.

Fees to Public Vaccinators.

Timothy.—The fee of 1s. is payable by Article 3 (2) of the Order, as we have several times said in answers to various correspondents, in respect of—

(1) "the number of children in the lists" on Form H.;

(2) "the number of children not included in such lists, but vaccinated by the public vaccinator himself."

By definition at the end of the Order, "the term 'child' means any person not more than 14 years of age."

The Capitation Fees.

S. B. M. asks: Can I charge the capitation allowance, Art. 3 (a) (Gen. Order 1898), on all vaccinations I have done since the commencement of the year, that have been sent me to do by the vaccination officer in Form H, irrespective of the date of birth? He has sent me lists of children born in 1894, and from that date up to the present, and I have successfully vaccinated a great many.

⁂ The only course open to our correspondent will be to *claim* the fee (*a*) in respect of all children vaccinated by him. Although the primary clause, Article 3 (1) (*a*) of the Order limits such payments to the case of children whose births have been registered since August 31st, 1898, and children whose births "shall not have been registered at all," the interpretation clause, Article 3 (2) is very much more inclusive, as it embraces not only the case of children whose names are placed on the official list H., but provides that payments are to be made in respect of "the number of children not included in such lists, but vaccinated by the public vaccinator himself." "The term 'child' means any person not more than 14 years of age," by definition at end of Order. The public vaccinator appears therefore to have a legal as well as a moral right to receive this fee (*a*) in all cases of successful vaccination under 14 years.

Official Vaccination by Private Practitioners.

General Practitioner writes: In order to promote efficient vaccination throughout the country it is most desirable that parents should be allowed to have their own doctor to vaccinate the children free of charge, as many poor people have strong objections to have their children vaccinated by the public vaccinator, and in the case of poor people who cannot afford to pay, it is especially desirable that general practitioners who hold vaccination certificates, and who comply with the regulations of the Local Government Board, should be paid on the same scale as public vaccinators; also that the office of public vaccinator, or sole appointments, be dispensed with.

Ubique writes: Mr. Strachey is reported as asking the President of the Local Government Board if he would take into consideration the paying of a fee to the medical attendant of the family. The old Poor-Law Board I am informed had previous experience of this. I have it on good authority that private practitioners were paid in this way, but competition was so keen between them that the children suffered from insufficient protection, and also the ratepayers cried out on account of the enormous expense.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1899.

SUBSCRIPTIONS to the Association for 1899 became due on January 1st, 1899. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, MARCH 18TH, 1899.

THE MIDWIVES BILL.

THE agitation in favour of legislation to register midwives had been in existence for a good many years when the chances of the ballot in the House of Commons last year rendered it possible that the proposed legislation might be seriously considered by Parliament. The avowed object of the promoters of the Bill was to bring the practice of midwives under public control by requiring them to be registered, and by appointing a Board which should have the custody of the register, and lay down the conditions of admission to it, and the rules and regulations under which midwives should follow their calling.

The nature of the legislation desired by the Midwives Bill Committee have long been known, and the proposals have been fully considered by the British Medical Association on many occasions. The most recent proposals were referred to a Subcommittee of the Parliamentary Bills Committee, which drafted the amendments required should legislation be attempted on the lines favoured by the Midwives Bill Committee. When the Bill of 1898 was introduced, its provisions were minutely considered, first by a Committee, and then at a special plenary meeting of the General Medical Council, when the principles laid down by the British Medical Association as those which must guide any legislation on the subject were endorsed by the General Medical Council. His Grace the Duke of Devonshire, Lord President of the Council, having been approached by the promoters of the Bill of 1898, with a request that he would give facilities for its passage through Parliament, informed them that they must come to an understanding with the General Medical Council before the Government could look with favour on the proposed legislation. The Committee of the General Medical Council subsequently received a deputation from the promoters of the Bill, and presented to the November meeting of the Council a report of this interview, together with certain recommendations which were adopted by the Council. The final stage of these negotiations was reached when the Midwives Bill Committee issued a revised draft of its Bill,[1] which has since been introduced into the House of Commons and read a first time. Its chance of passing as a private Bill this session is exceedingly remote; but as the matter has been under the cognisance of the Privy Council, and as the promoters of the Bill profess to have fulfilled the conditions laid down by the Lord President, in other words, to have satisfied the requirements of the General Medical Council, the Subcommittee of the Parliamentary Bills Committee at once submitted the new measure to careful examination, and reported to the Committee that though the Bill had been modified in many material respects, further amendments were required to bring it into accord with the conditions which the British Medical Association and the General Medical Council considered should be fulfilled by any legislation which the Government could be advised to accept. This report was discussed at a special meeting of the Parliamentary Bills Committee last month, when it was adopted with certain minor alterations, and referred to the Council, which held a special meeting on March 10th for its consideration. The report was there very fully debated and eventually adopted with a few verbal alterations by an almost unanimous vote.

Owing to the fact that the number of modifications to be made in the Bill of the Midwives Bill Committee in order to introduce into it the safeguards necessary in the interests alike of the public health, of the women of the poorer classes who now resort to midwives, and of the medical profession, it was found most convenient to present the report in the form of a draft Bill.[2] This has the advantage of sketching a coherent scheme, in which the prescribed conditions are efficiently carried out, but it must not be understood to indicate that the Association desires to promote legislation, or will seek to obtain the introduction of this draft Bill into Parliament unless circumstances should arise, such as the adoption by the Government of the Bill of the Midwives Bill Committee, which would make it expedient to do so in order to educate opinion in the House of Commons.

The Bill adopted by the Council of the British Medical Association provides for: (1) The regulation and restriction of the issue of certificates in midwifery to women; (2) the regulation and restriction of the practice of midwives; (3) the legalisation of the title and practice of the midwife; (4) the restriction of the practise of midwifery for gain to such legalised midwives.

The proposed licensed midwife would have (1) to produce evidence of her claim to be licensed, (2) to take out a local licence for the district in which she practised, (3) to be subject to the rules and regulations of the Central Board, (4) to be subject to the supervision of the local authority under that Board, (5) to be allowed to practise only within the area for which she was licensed, (6) to be penalised for breach of regulations, by monetary fines and by suspension from practice, (7) to be restricted in practice to the conduct of normal cases.

The Bill proposes that a Central Board shall be established, consisting of registered medical practitioners representing the various districts of England and Wales and one registered practitioner appointed by the Privy Council. The greater part of the regulations governing the practice of the proposed midwives will be drawn up by this Central Board, which will also have power to visit and inspect any lying-in home kept by a midwife, and to require the premises to be registered.

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[1] Its text was published in the BRITISH MEDICAL JOURNAL, January 7th, 1899, p. 46.

[2] This draft Bill was published in the BRITISH MEDICAL JOURNAL, February 11th, p. 350.

The objects to be aimed at are the efficient supervision and control of the practice of midwives and a higher and more uniform standard of education for them. No new powers should be entrusted to the midwife, but in the public interest it is proposed the powers the present midwife enjoys owing to the entire absence of regulation and control should be largely restricted. The main difference between the proposals of the British Medical Association and those of the Midwives Bill Committee is that in the Bill of the latter many most important points, such as those regarding restriction of practice, local supervision, privileges of licensed persons, lying-in homes, finances, etc., are dealt with in an unsatisfactory manner or not at all.[3]

THE CENTRAL HEALTH ADMINISTRATION OF LONDON.

At a time when the whole question of the local government of London is under consideration, in consequence of the introduction into the House of Commons of the London Government Bill, attention cannot fail to be directed to the anomalous position and constitution of the Metropolitan Asylums Board. Indeed, apart from the academic or political question of the relation of such body to the central government of the County of London, the average ratepayer cannot fail to feel that a very practical question compels his consideration in view of the great increase in expenditure which the report of the Finance Committee to the last meeting of that Board has disclosed.

We gather from Mr. Acworth's statement that in a few years the annual expenditure of the Board will be a million a year. Down to 1875 the Board's rate never exceeded 1d. in the pound; last year it had reached 4½d., and it is likely soon to rise to 6d.

We should be the last to deny that much excellent work has been done by the Board in the matter of isolation and prompt removal of cases of infectious disease. The relative immunity of London from small-pox epidemics since 1886 is doubtless attributable in a large measure to the action of the Board and its efficient staff. If we have from time to time been reminded of wasteful extravagance in administration or in the execution of contracts, we have not hesitated justly to appreciate conscientious work amid trying and often unpleasant surroundings. True the provision of accommodation for cases of fever or diphtheria has on several occasions fallen short of the demand, but difficulties in the way of obtaining suitable sites for hospitals and in their construction have been pleaded, and generally accepted with only a modicum of grumbling.

Having made all these admissions and allowances we are bound to say that no reform of the sanitary administration of London can be regarded as satisfactory which leaves out of view so glaring an anomaly as the perpetuation of the Metropolitan Asylums Board.

Originally constituted for Poor-law purposes only, it has become the central agency for dealing with infectious disease in all classes. In extending its operations there has been no reform of its constitution. It has the demerit of being in part an indirectly elected body by selection from the guardians of the poor, and for the rest composed of nominees of the Local Government Board. We submit that a Board thus composed possesses the inherent capacities for extravagance and mismanagement which were the undoing of the Metropolitan Board of Works. Mr. Balfour's new Bill for London government is commended for the proposal it contains to abolish indirectly elected District Boards and to substitute directly elected municipal councils. If the urgent need of such reform is felt in regard to Holborn and Poplar and Lewisham in matters of paving, lighting, and house sanitation, is the principle of direct representation less trustworthy or sound in the matter of providing the costly machinery for preserving five millions of persons from the ravages of epidemic disease?

Not only is the Board ill-constituted and extravagant, but in the interests of simplifying and unifying the central government of London the very existence of such no Board is an anachronism and a redundancy. There is no portion of its work which could not with greater propriety and equal efficiency be discharged by bodies which did not exist when the Board was hastily called into being. The Board houses some 6,000 imbeciles: why should these not be under the same supervision as the 11,000 lunatics for whom the London County Council is responsible? The Board has a training ship for pauper boys, and schools for imbecile children: surely the London School Board would not find its energy overtaxed by taking over these educational establishments? If, indeed, we are reminded that the County Council is too overworked to stand the strain of added duties, it might perhaps be induced to hand over its industrial and reformatory schools at Mayford and Feltham to the School Board. Such transfer would perhaps facilitate the chief reform of all which we desire to put forward, not only in the interest of representative government, but in the interest of the public health of London.

We feel strongly that all central metropolitan powers in regard to public health should be in the hands of one body composed of elected representatives of the ratepayers. The central health authority for London must be one, and undivided. The London County Council is nominally the health authority for the whole of London; it makes bylaws for the whole county, appoints the medical officer and assistant medical officers of health for the whole county, and pays half the salaries of the local medical officers of health and sanitary inspectors in the county. It can act in default of any sanitary authority in the county. It licenses, registers, and inspects cowhouses, offensive businesses, dairies, and milkshops. It receives notification of infectious diseases, and can enlarge the definition of infectious disease, and its health department is in constant communication with the local sanitary authorities.

The means of prevention of infectious disease and the mode of dealing with the infectious sick are surely not less a function of the central health authority than the duties we have detailed. Moreover, there is pathological advantage as well as economy in uniting all central health duties under one head. We find that on June 12th, 1894, the Council carried a resolution affirming the desirability of such transfer of powers, and there is no reason to think that there has been any departure from such resolution, or that there would be any unwillingness to assume duties which fall to the central health authority in other municipalities. If the Government are seriously bent on simplifying and reforming the chaos of sanitary administration in London, they will be well advised to insert clauses in Mr. Balfour's Bill which shall provide for the painless extinction of a Board which has survived its utility, and for the division of its powers among representative bodies better qualified to discharge them efficiently and economically.

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[3] An analysis of the main differences will be found in more detail in a tabular statement printed at p. 690.

"SERMONS IN STONES."

REFERENCE was made a week ago to the new buildings of the Middlesex Hospital, but they are worth more than a passing mention. Indeed, a very pleasant discourse might be written on new buildings, considering what great difficulties are involved in their design, and what especial character they should have, to be in harmony, not in unison, with the buildings to which they are added. And certainly, to see new buildings at their best, and at their worst, the right place is Oxford—where the last thirty years have made many curious changes. There is the Museum, Mr. Ruskin's teaching translated into architecture, the stones of Venice without their colour; there is Keble College, where every brick is a sort of direct challenge to the passer-by, saying plainly that if he does not admire that particular pattern he is a Philistine; and there are Mr. Graham Jackson's works in the Jacobean style, and the exquisite new buildings of Magdalen, and the embarrassing new Town Hall; and a host of other surprising structures, all new, and some as good as the old. Mostly these Oxford buildings are too grand for their business; they look as if they had been designed for inmates more subtle than undergraduates; they would serve to be inhabited by Rossetti's pictures.

But a hospital, when it builds, is content with the doctrine of Plato, that the beneficial is the beautiful. Its outer walls, so they look clean, need not be carved; the money must be spent on perfecting the inner life of the building. The new school buildings of the Middlesex Hospital, which were formally opened this week by a *conversazione* which was very largely attended, are in perfect accord with the Platonic rule; outside, they are free of all fidgety ornament, and pleasant enough to look at, and nothing more; inside, they are so well arranged and so well equipped with every possible advantage that no student of the hospital can fail, save by his own fault, to do good work in them. Chemistry, pathology, anatomy, and physiology have each their own set of class rooms on a separate floor; and every room is amply lighted, and so warmed and ventilated and well ordered that a maximum of work may be done with a maximum of health and comfort. For in all such extensions of hospital life the health of the workers must be safeguarded. The danger now is, of course, nothing to what it was a hundred years ago, or even fifty. We have said good-bye for ever to that state of things described in 1794 by Jesse Foot, in his spiteful account of Hunter: "Within these last ten years, five lecturers in anatomy are still fresh upon my memory who have fallen the victims of putrid *myasma* in the prime of life:" but it is still too easy for a student to knock-up over his work in anatomy and pathology, and it is just the best men who are most likely to suffer. Therefore care must be taken of them in these days of many examinations, and everything in the buildings of a hospital school must be healthy, convenient, and fairly comfortable; neither time nor strength nor health ought to be wasted.

Moreover, the influence of new buildings goes deeper than this, right down to the bed-rock of the character of a school. It is difficult for students to do their best, if their surroundings are sordid, or makeshift, or poverty-stricken; men cannot be diligent until they are comfortable—unless they are of a more philosophic habit of mind than is natural to students. And this is true, in face of the fact that our fathers before us did splendid work, some of them, in small unwholesome rooms, so rough and so ill-furnished that the student of our own days would be almost helpless in them. Is he therefore deficient in character and in strength of purpose, because he does not rough it as they did? Not a bit of it! He gets through as much work, or more, and of a higher quality; and he could not get through it, unless things were put ready for him.

Finally, his environment has yet another hold on him; it appeals not only to his intellect but to his heart. The honour of his hospital is before his eyes, visible in its buildings; he is a citizen of no mean city; he feels the *genius loci*, the love of the place—he is proud to belong to it. Unhappily for him, this only makes the shock worse, the day he leaves his beloved hospital, turns his back on the beautiful place, stands shivering on the brink of practice. But he takes with him the vision of the ordered life of a great school, having a scientific standard hardly to be attained in the things of practice.

Therefore, the difference between the new buildings of a university and the new buildings of a hospital school is not so very great after all. Sermons in stones, every one of them: the same inside life of work and friendship and great plans for the future; the same cold shock waiting outside alike for the undergraduate and for the student, equally unpleasant for each of them. And a wise man will just make the best of his time, wherever he is, while he is there; will give himself without reserve to the place, honour it, put himself wholly under the good influence of its outward and visible greatness; then carry the memory and the fame of it, and the standard it gave him, into the world.

THE CROONIAN LECTURE.

THE Croonian Lecture of the Royal Society was delivered by Professor J. Burdon Sanderson on March 16th. This is the second occasion on which Professor Sanderson has delivered this lecture, the first being in 1867. The earlier lecture had dealt with graphic records affording evidence of the mechanical relations between the movements of the heart and those of respiration in the higher animals. The lecture of this year was on the relation of motion in animals and plants to the electrical phenomena which are associated with it, and the researches upon which it was founded have also been conducted by means of a graphic method but one of much greater delicacy. They were made by means of the capillary electrometer, the excursions of the meniscus of the mercury column being registered on a moving, sensitive photographic plate. The method has been applied to (1) the measurement of intervals of time between electrical changes which succeed each other with great rapidity, and (2) the obtaining an estimate of their relative intensities. The properties which made it so invaluable for these purposes were (1) that it responded to the action of a current promptly, beginning when the current was closed, and indicating every change in its strength or direction without measurable loss of time; (2) that *cœteris paribus*, the rate of ascent was proportional to the electromotive force of the current which produced it; and (3) that the instrument could be graduated, and its graduation verified by comparison with instruments of greater precision, and thus used for the measurement of differences of potential of longer duration. Professor Sanderson discussed the application of the method to the study of the electrical changes in skeletal muscle and in the heart, and showed that an analogous electrical change took place in the leaves of the dionœa when irritated. In bringing his lecture to an end Professor Sanderson drew the following conclusions from his study of the phenomena in question: In striated muscle the primary effect of every excitation is a process of oxidation having its seat at the excited part. It may be surmised that this consists of two stages—namely, liberation of previously intramolecular oxygen, and actual oxidation. In a single element of muscular structure the duration of this process, when induced by an instantaneous stimulus, must be exceedingly short and corresponds with that of the excitatory variation; but in the whole organ may last until the development of tension has reached its maximum. Further, the electrical phenomena of reflex action afford no support to the doctrine that the natural contraction of muscle is discontinuous, nor does it appear that this is essential to efficiency. Finally, the phenomena known as the "muscle current" and the "demarcation current" are manifestations of processes which have their seat at the surface of contact between electrode and living muscle.

CONSUMPTIVE PASSENGERS ON OCEAN STEAMERS.

OCEAN voyages and dry climates have long been sought by consumptives as affording some prospect of cure for their disease, but a new obstacle will be thrown in the path of consumptive travellers in the future if some of the views expressed in an article entitled Consumptive Passengers for South Africa, in *South Africa* of March 4th, obtain general acceptance at the hands of the lay press and the ocean-going public. Wide interest has been aroused in the question of the prevention of consumption, and much latent zeal, sometimes in unexpected quarters, has been discovered. Unless zeal in the cause be accompanied by wisdom and discretion, the consumptive will come to be regarded as something rather worse than a leper, and but little less dangerous to those with whom he may come in contact than a patient suffering from small-pox or the plague. Thus a medical correspondent in a recent issue of *South Africa* writes: "Many thousands of lives have been sacrificed, and will continue to be, till proper precautions are taken to secure thorough isolation for each individual case of phthisis—an isolation as perfect and complete as that now accorded to the most virulent form of infectious disease." This truly alarming assertion is accompanied in the columns of the same journal by the opinions of "A Weakly Scotsman" who, apparently determined to hold no manner of converse with the devil, recommends the establishment of a line of hospital ships to convey consumptives to the Cape, "where they would be entertained at a receiving home until well enough to move out in search of work." The suggestion of a ship for consumptives running in conjunction with a sanatorium in South Africa, in connection with which all arrangements might be made for the accommodation and medical supervision of the patient both on the voyage and in South Africa, is one well worth consideration in the interest of the consumptive himself; but to maintain that not to adopt some such scheme is necessarily to jeopardise the health of the ocean voyager implies a false conception of the true character of tuberculosis. The term "infectious" had in the prebacteriological age of pathology a connotation which it no longer bears, but the old meaning still lingers in the lay, occasionally perhaps even in the professional, mind. The breath and the surrounding atmosphere of a consumptive do not necessarily convey infection; under proper precautions, as is abundantly shown by the statistics with reference to attendants in the consumption hospitals, they do not convey it at all. To describe the true nature of tuberculosis "communicable" is undoubtedly a better adjective than "infectious," and for this reason it is used in preference to "infectious" by several American writers. Proper disposal of the excreta and a careful sterilisation and eventual destruction of the sputa of consumptives are conditions essential to public safety, whether on sea or land, and we see no reason why they should not be readily obtained on board the ocean steamer, which is always provided with a medical officer, whose duty it is to see that rational precautions in the interests of public safety are taken. A consumptive should undoubtedly be provided with a cabin to himself, and at the end of the voyage some disinfecting process for such a cabin should be added to the rigorous routine cleaning of the ship. A code of rules dealing with the treatment of consumptive passengers might advantageously be drafted by competent authorities and used by steamship companies for the guidance of their medical officers. Provided such a code, drafted on the lines indicated, were enforced, there would be no need, in the interests of public safety, either for "perfect and complete isolation" or for "hospital ships."

WOMEN IN LEARNED SOCIETIES.

THE Ophthalmological Society of the United Kingdom has followed the example set by the British Medical Association in 1892. At its meeting last week it resolved to admit women to its membership. This liberal policy cannot but have the best results. Women have now the same legal status in the profession of medicine as men, and it is just and wise that the right hand of fellowship should be held out to them. It is desirable in the interests of the profession at large that they should be brought under those good influences—intellectual, moral, and social—which a well-organised Society exercises over its members, and it is not less to be desired in the interests of the individual ladies that they may have every opportunity of making themselves acquainted with the observations and the opinions of the most active workers in the various departments, and of experiencing that useful stimulus to good work and high purpose fostered by learned Societies, which have never failed to set up a high standard of professional attainment and professional honour.

THE ORGANISATION OF SECONDARY EDUCATION.

THE Duke of Devonshire introduced into the House of Lords on Tuesday last the Education Bill, which was read a first time in the last session of Parliament. The advantage of this method of action is seen in the searching criticism to which, during the Christmas holidays, the Bill was subjected. It says a good deal for it that, judging from the Duke's speech, little should have been found in it for alteration. The principal note of the speech is caution. The Duke is not in a hurry, but intends to proceed gradually, and to make one point sure before he advances to the next. He does not therefore intend to make any arrangements for local authorities until the central department shall have been put in thorough working order, and shall be ready to help and advise the local Committees which will then be instituted. The central authority will take over a certain part of the work of the Charity Commission, and will probably absorb altogether the Science and Art Department. Some fortunate vacancies in these departments have rendered this task easier. It will have a Parliamentary secretary, and will be responsibly represented, like the Board of Trade. The Consultative Committee will be a permanent Council, and will be to the extent of two-thirds representative of the universities and other teaching bodies. Inspection will, except for schools administered under the Endowed Schools Commissioners' scheme, which are mostly grammar schools, be optional, not compulsory. University inspection is evidently going to be recognised as adequate, and it is probably the best form that could at present be found. The Duke professes, on behalf of the proposed Council, extreme unwillingness to interfere with the freedom and individuality of schools. The teaching profession are evidently satisfied with and desirous of the Bill, and the public can therefore feel sure that there are no concealed drawbacks to a measure which is evidently to its advantage.

THE SERUM OF SOBRIETY.

If anyone wished to embody the most striking feature of the therapeutic "movement" of the day in a classic formula, he would—if he cared to use the licence of the "higher criticism" and give the words a meaning undreamed of by the author—find one in Ovid's phrase, *Sero medicina paratur*. In our battles against disease we conquer in the sign of Serum. Such virtue has this elixir that by means of it—if we are to believe the prophets of the New Medicine—we can make ourselves "immune" against the invisible foes which go up and down the world seeking whom they may devour—including, it may be presumed, the "microbe of death" not long ago run to ground in a Transatlantic laboratory. But this is not all. Serum, it appears, if the right "brand" be used, will also "immunise" us against moral disease. For instance, if we wish to render ourselves proof against inebriety, so that even after taking the pledge we shall feel no temptation to subdue our inordinate sense of our own virtue by a corrective dram, we need only submit to a few injections of a serum prepared by Dr. Evelyn, of San Francisco. This serum is extracted from a horse previously made suitable for the purpose by a course of alcohol. The noble animal has from two to fifteen pints of whisky administered to him daily for three months. At the end of that time a serum can generally be obtained which, inoculated into the most confirmed toper, at once leads him to ask for a "blue ribbon." The serum is preventive as well as curative; we are told that a child immunised with it is protected against drunkenness for the rest of his days. Thus may the virtue of temperance inoculate our old stock and Dr. Dawson Burns find his occupation gone. Dr. Evelyn calls his precious serum "equisine." We venture to suggest that he might next turn his attention to the treatment of folly. He could doubtless extract an appropriate serum from an animal nearly related to the horse. There is a large field for the therapeutic use of "asinine" at the present day, and the ingenious American physician might begin with the patients who have been through a course of his "equisine."

THE MEDICAL HERO OF SANTIAGO.

General Leonard Wood, the hero of Santiago, began his career as a member of the medical profession, and the work of sanitary regeneration which he has begun in Cuba has doubtless been inspired and directed by his medical training. Governor Roosevelt has contributed to the *Outlook* an interesting sketch of his early career. General Wood, he says, was a Cape Cod boy, and to this day there are few amusements which he enjoys more than for himself to sail a small boat off the New England Coast, especially in rough weather. He went through the Harvard Medical School in 1881-2, and began to practise in Boston, but his was one of those natures which, especially when young, fret for adventure. A year after leaving college he joined the army as a contract surgeon, and almost immediately began his service under General Miles in the south-western territories. These were then harried by the terrible Apaches; and the army was entering on the final campaigns for the overthrow of Geronimo and his fellow renegades. No one who has not lived in the West can appreciate the incredible fatigue and hardship attendant upon the campaigns. There was not much fighting, but what there was was of an exceedingly dangerous type; and the severity of the marches through the waterless mountains of Arizona, New Mexico, and the northern regions of Old Mexico (whither the Apache bands finally retreated), was such that only men of iron could stand them. But the young contract doctor, tall, broad-chested, with his light yellow hair and blue eyes, soon showed the stuff of which he was made. Hardly any of the whites, either soldiers or frontiersmen, could last with him, and the friendly Indian trailers themselves could not wear him down. In such campaigns it soon became essential to push forward the one actually fitted for command, whatever his accidental position may be; and Wood, though only a contract surgeon, finished his career against the Apaches by serving as commanding officer of certain of the detachments sent out to perform peculiarly arduous and dangerous duty; and he did his work so well, and showed such conspicuous gallantry, that he won the most coveted of military distinctions—the medal of honour. Wood never called upon others to do anything that he himself did not do. They ran no risk that he did not run; they endured no hardship which he did not endure—intolerable fatigue, intolerable thirst, never-satisfied hunger, and the strain of unending watchfulness against the most cruel and dangerous of foes—through all this Wood led his men until the final hour of signal success. When he ended the campaigns he had won the high regard of his superior officers not merely for courage and endurance, but for judgment and entire trustworthiness. Of General Wood's brilliant services in Cuba this is not the place to speak; they are writ large in the recent history of his country.

PROFESSIONAL SECRECY.

In his Memorandum on the Obligation of Medical Practitioners with Regard to Professional Secrecy, prepared by direction of the General Medical Council, Mr. Muir Mackenzie adverts to the distinction which exists between the medical and the legal professions with regard to "privileged communications." Complaints are sometimes made to the effect that whereas the privacy of the solicitor's office is jealously guarded by the law, the medical practitioner, under pain of a commital for contempt of court, may be compelled to disclose the most sacred confidences of the consulting room. It is a general rule in civil as well as in criminal cases that the plaintiff or defendant may obtain what is called discovery of the facts, figures, and documents upon which his opponent intends to rely for the purposes of his suit. There are only four grounds upon which such discovery can be resisted as of right: (1) that the matter sought to be disclosed is criminatory or penal, (2) that it is within the doctrine of "legal professional privilege," (3) that it discloses the parties' evidence, (4) that it is injurious to the public interest. Sir George Jessel, in a well-known case, said: "The object and meaning of the rule is this—that as, by reason of the complexity and difficulty of our law, litigation can only be properly conducted by professional men, it is absolutely necessary that a man in order to prosecute his rights or to defend himself from an improper claim, should have recourse to the assistance of professional lawyers; and it being so absolutely necessary, it is equally necessary, to use a vulgar phrase, that he should be able to make a clean breast of it to the gentleman whom he consults with a view to the prosecution of his claim, or the substantiating his defence against the claim of others; that he should be able to place unrestricted and unbounded confidence in the professional agent, and that the communications he so makes to him should be kept secret, unless with his consent (for it is his privilege and not that of the confidential agent) that he should be enabled properly to conduct his litigation. That is the meaning of the rule." But the law of this country does not apply this very rational principle to medical confidences. For instance, a confidential report to an insurance company by its medical adviser as to the state of health of a party whose life is proposed to be insured is not entitled to protection; nor is the report made by the medical officer of a railway company as to the injuries sustained by a passenger on the line, unless, upon the principle above referred to, such report has been obtained by the company with a view to impending litigation, when it is placed in the same category with a case stated for the opinion of counsel. It is interesting to notice that in America a limited degree of protection is extended to members of the medical profession. By the New York Civil Code "a licensed physician or surgeon cannot, without the consent of his patient, be examined in a civil action as to any information acquired in attending the patient which was necessary to enable him to prescribe for the patient." A somewhat similar statute exists in Missouri.

THE LONDON COUNTY COUNCIL AND CREMATORIA.

AT the last meeting of the London County Council the Parliamentary Committee reported on the question of legislation for facilitating the provision of crematoria by local authorities. It appears that by private Acts of Parliament powers to establish and maintain crematoria have been obtained by Cardiff, Leamington, Hull, Leicester, and Burnley. The need for such provision is not less urgent in the case of London. Some 130,000 interments take place annually within the County of London in some 640 acres of burial ground. At this rate most of the available space will in a few years be exhausted. Cremation, though as yet unrecognised by the general law of the land is in the opinion of competent judges more sanitary than burial, and can be surrounded by safeguards not less efficient from the legal point of view. Private effort at reform in disposal of the dead has been encouraged by the Cremation Society of which Sir Henry Thompson is the able President, but cremations at their cemetery at Woking do not average one a day. The Home Office has reported in favour of local authorities seeking parliamentary powers to promote cremation rather than leaving the matter to be dealt with by private companies. The London County Council has accordingly decided to seek powers in the next session of Parliament to enable the Council and local authorities under the Metropolitan Burial Acts to provide places for cremation.

NURSING IN IRISH WORKHOUSES.

WE have not hesitated to comment adversely on some occasions the action of the Irish Local Government Board. But we are bound to say that in the matter of the nursing in workhouse hospitals they have made a notable and praiseworthy effort to eradicate the mischief of many years' neglect. What the nursing and general management of hospitals were on the occasion of our Commissioner's visit was fully set out in the reports published in the BRITISH MEDICAL JOURNAL. In January last the Board issued a circular declaring the conditions on which the guardians could apply for recoupment out of the Local Taxation (Ireland) account for one-half of the salary of a nurse, and they defined the term "trained nurse" to mean "any person who has resided for not less than two years in a clinical or other hospital recognised by the Local Government Board, and who, after examination, has obtained from such hospital a certificate of proficiency in nursing." The Board further declared that they would not accept the certificate of any hospital "except a clinical hospital recognised by the medical examining bodies in Ireland, England, or Scotland unless the non-clinical hospital has at least 150 beds for medical and surgical cases and unless due provision is also made for giving the probationer nurses a course of training in the nursing of infectious diseases. In addition, the hospital should have a staff of at least one resident and two visiting physicians and a trained head nurse. Such arrangements should likewise be made, including the giving of lectures and the holding of examinations, as shall satisfy the Local Government Board that sufficient opportunities are afforded to the persons undergoing instruction to become fully trained, experienced, and certificated nurses." We regret to notice in the Dublin papers that an attempt is being made to obstruct the carrying out of this most proper scheme. The claim made is that nurses should be accepted from the county and workhouse hospitals. But the contention that women who attend the sick in such institutions are to be regarded as "trained nurses" in the sense in which that phrase is now understood is untenable. Moreover, the assertions as to the difficulties of teaching nurses in large hospitals where there are many students shows want of knowledge of modern methods in these institutions. We are very sorry to note this opposition. It is to be hoped that the Local Government Board will stick to their guns, and take care that the nursing of the poor shall in future be under the direction of women about whose training there is no doubt.

POISONING BY CARBOLIC ACID.

IT is now more than two years since a letter was received from the Privy Council stating that the question of placing restrictions upon the sale of carbolic acid was under the consideration of the Privy Council with a view to legislation on the subject. From the reply given by Mr. Jesse Collings to Dr. Farquharson in the House of Commons on March 13th it appears that the Privy Council has at length prepared a Bill for the purpose. Mr. Collings, however, was unable to give any promise that the Bill would be introduced this session. The lamentable mistake which caused the death of Dr. A. K. H. Boyd is a further proof of the necessity for including carbolic acid in the poison schedule, as the supply of the article would then be subject to the regulations and require observance of other precautions besides the mere "poison" label, which is not actually necessary in the sale of carbolic acid under existing conditions. The adoption of regulations as to the keeping, dispensing, and selling of poisons can only be partially effectual in preventing accident so long as carbolic acid and many other dangerous or deadly drugs remain unscheduled as poisons. We trust therefore that the Council of the Pharmaceutical Society, which is empowered to take the initiative in this matter for the protection of the public, will not fail to discharge that important duty and press its recommendations upon the Privy Council for approval in accordance with the provisions of the Pharmacy Act 1868.

MYELOPATHIC ALBUMOSURIA.

THE paper read by Dr. T. R. Bradshaw and Dr. W. B. Warrington at the last meeting of the Royal Medical and Chirurgical Society, will serve to draw attention to a morbid condition which is little known in this country. Last April Dr. Bradshaw reported to the society the case of a man who was the subject of a special form of albumosuria that had only once been observed in this country before, and was described by Bence Jones in a paper read before the Royal Society in 1847. Dr. Bradshaw expressed his conviction that the patient was suffering from a peculiar cellular infiltration of the bones of the thorax, and the subsequent *post-mortem* examination confirmed the diagnosis, although the connection between albumosuria and this kind of bone disease had been recognised *post mortem* on four or five occasions. This is, it is said, the first time that the diagnosis has been made during life, and verified by examination after death. The authors of the paper have designated the condition "myelopathic albumosuria," a term which seems to embody the principal points of the pathology of the disease, as far as they are at present known. It is highly probable that it will be found that the disease is not so rare as might appear from the want of records, and that cases have hitherto been mistaken for caries or albuminuria according as the urinary or bone symptoms have been the more conspicuous. One of the speakers in the discussion referred to the probability that cases may be found in the surgical wards of our hospitals and infirmaries, but for their recognition it may be necessary to carry out a more exact analysis of the urine than is customary in the routine examination for albumen.

THE LIVERPOOL SCHOOL OF TROPICAL DISEASES.

AT a meeting of the Foreign Consuls Association held in the Liverpool Chamber of Commerce last week, Professor Boyce delivered an address setting out the objects and intentions of the Liverpool School of Tropical Diseases. He pointed out that the main objects were to train medical men proceeding to the tropics, or taking charge of ships, to give short courses to missionaries, to train nurses, and to encourage research both in the laboratories of the school and by sending expeditions to the tropics. After some discussion, the following resolution, moved by Mr. A. L. Jones and seconded by the Norwegian Consul, was adopted:

> That this meeting of Consuls expresses its appreciation of the great importance of the work undertaken by the Liverpool School of Tropical Diseases, and suggests that each Consul bring the matter to the notice of his Government, and also of the medical profession and others interested, in such a way as may be best according to his judgment.

We understand that it has been arranged formally to inaugurate the new school on April 22nd, and that it is hoped that the Colonial Office will recognise the school as giving training of the same kind as that to be given at the London School of Tropical Medicine. It is also hoped that medical men coming to Europe, especially from South American countries, may take advantage of the facilities to be provided at Liverpool. Some of the South American Governments give financial assistance to native medical men desiring to complete their medical education by studying in Europe, and it is hoped that one of the results of the sympathy shown by the Consuls in Liverpool to the scheme will be that the Liverpool School of Tropical Medicine will be added to the list of those places where such visitors may spend part of their time.

INFLUENZA AND DIPHTHERIA IN LONDON.

THE decline in the mortality from influenza in London during the first week of the current month has not been maintained. The deaths directly attributed to this disease, which had been 74, 113, and 97 in the three preceding weeks, rose again to 100 during the week ending March 11th. The increase in the mortality was most marked among elderly people, no fewer than 56 of the 100 influenza deaths recorded last week being of persons aged upwards of 60 years. In proportion to population influenza is much more fatal in South London than in any other part of the metropolis, and is especially prevalent in Battersea, Wandsworth, and Greenwich. Although the mortality from diphtheria in London last week showed a decline, the notifications were increased in number. The deaths referred to diphtheria in the metropolis, which had been 40, 29, and 48 in the three preceding weeks, declined to 36 during the week ending March 11th. Of these 36 fatal cases, 4 were of persons belonging to Poplar, 3 to Islington, and 3 to Camberwell sanitary areas. The notifications of diphtheria in London, which had been 199 and 207 in the two preceding weeks, further rose to 229 last week. The increase in the prevalence of the disease was almost entirely confined to North London, the numbers of new cases in West, Central, East, and South London, differing but slightly from those recorded in the preceding week. The marked increase in the prevalence of diphtheria in North London was mainly due to an outbreak in Islington, where 14 new cases were notified, against 3 in the preceding week. In St. Pancras the 12 new cases showed a further increase upon the numbers recorded in recent weeks. There was also a marked increase in the number of new cases notified in Fulham, Bethnal Green, and Camberwell: in the last-mentioned sanitary area no fewer than 26 new cases were recorded last week, against 15 and 10 in the two preceding weeks. There were 1,308 diphtheria patients in the Metropolitan Asylums Hospitals on Saturday last, March 11th; 131 new cases were admitted last week, against 149 and 142 in the two preceding weeks.

HOSPITALS AND CERTIFICATES UNDER THE WORKMEN'S COMPENSATION ACT.

THERE is a good deal of complaint of the improper competition of hospitals with private practitioners which in some respects is no doubt well founded; it is therefore the more important to stop at the beginning a new departure which threatens to deprive private practitioners of a considerable share of the fees payable under the Workmen's Compensation Act. We are informed that several hospitals are prepared to authorise their house-surgeons to give such certificates on payment of a fee varying from 5s. to 10s. 6d., the money in some cases to be kept by the house-surgeon, in others to go directly into the coffers of the hospital; but in either case it must ultimately benefit the hospital funds as such an allowance is equivalent *pro tanto* to an increase in the house-surgeon's salary, and, in the case of the successors of the present incumbents, will no doubt be taken into account. It must also come out of the pockets of the profession, who are thereby deprived of a perfectly legitimate source of income. We are glad to learn that some other hospitals, recognising that these certificates are paid by the employers, refuse to grant anything more than the ordinary free club and sick certificates, and refer these applicants to outside practitioners. We strongly recommend this course to the support of those members of the profession who are on the honorary staffs of hospitals and have the power to prevent this new form of hospital abuse. It is to be regretted that the Birkenhead Medical Society should apparently have given its sanction to the policy we are condemning, but it is, of course, possible that there may be some explanation, not apparent to those unacquainted with local conditions, of their resolution upon this subject already published.[1]

THE PROPOSED AMENDMENT OF THE MEDICAL ACTS.

FROM the summary which we gave last week of the interim report of the President of the General Medical Council on the replies received from the universities and other medical and surgical bodies relative to the clauses amending the Medical Acts, which have already been commented on in the BRITISH MEDICAL JOURNAL, it will be seen that the proposed measure has met with scanty favour. Only three out of the ten bodies who have replied go so far as to express approval of the objects sought to be attained by the Bill, and even their approval is considerably qualified, whilst the other bodies content themselves with stating objections. Six of the bodies consulted have as yet expressed no opinion, and it is hardly probable in view of the replies which have been received that their silence can be construed as entirely favourable. Generally speaking, it may be said that the chief ground of the objections raised is that the proposed Bill encroaches unduly upon the privileges and jurisdiction of the various licensing bodies, and it may at once be admitted that in the existing state of things this is a very natural and reasonable objection, and one which seems to have been overlooked when the clauses were drafted. It will, no doubt, be possible to amend the clauses so as to conciliate the authorities, whose approval the Government requires as a condition precedent to giving their support to the Bill, and the Executive Committee has already resolved that the clauses should be remitted to the Council's draftsman to consider the objections and suggested amendments. As has already been pointed out in the JOURNAL, we consider that unless the clauses are so amended as to have the effect of prohibiting under penalties a medical man whose name has been erased from the *Register*, either temporarily or permanently, from carrying on his profession during the period of erasure, the most efficacious method of punishment is omitted. As, however, the Council does not appear to see its way at present to adopt this means of discipline, we trust that it will be found possible to redraft the clauses, which are, at any rate, a step in the right direction, so as to meet the wishes of the licensing authorities. It is a somewhat curious comment on the provisions of the first clause to find in the Minutes of the Council a list of upwards of thirty persons whose names have been restored to the *Register*, from which they had previously been erased.

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[1] BRITISH MEDICAL JOURNAL, March 4th, p. 537.

EDINBURGH ROYAL MEDICAL SOCIETY.

THE annual dinner of the Edinburgh Royal Medical Society took place in the University Union on March 10th. The Senior President of the Society, Dr. R. F. McNair Scott, occupied the chair, while the other Presidents, Drs. C. M. Cooper, P. T. Herring, and G. F. B. Simpson, acted as croupiers. The guest of the evening was Sir William Overend Priestley, M.P. for the Universities of Edinburgh and St. Andrews, and amongst others present were Brigadier-General Macdonald, C.B.; Dr. Andrew, President of the Royal College of Physicians; Professor Chiene, President of the Royal College of Surgeons; Professor Simpson, Professor Sir William Gairdner, Glasgow; and the Rev. Professor Taylor, Dean of the Faculty of Divinity. After the loyal and patriotic toasts the Senior President gave the toast of the evening, "The Guest, Sir William Overend Priestley, M.P., a most distinguished pupil of the Edinburgh Medical School, an able representative of his constituents in the House of Commons, and a benefactor to the University of Edinburgh." Sir William, in reply, said he was at one with the Society in his affection for the University of Edinburgh. He owed everything to Edinburgh University and Edinburgh herself. He owed his education to the University of Edinburgh, his wife to Edinburgh, and the crowning happiness of his life came from the University of Edinburgh when he was made her representative in Parliament. He recalled the great changes that had come over the University since he was a student in regard to new buildings and facilities for study; but he could not avoid thinking that he had had the inestimable privilege of studying at a time when there was in the University a galaxy of Professors such as had never previously been equalled, and which perhaps would never again be equalled—Alison, Sir Robert Christison, James Syme, Sir James Young Simpson, Hughes Bennett, Goodsir, Sir William Hamilton, Professor Aytoun, Christopher North, Professors Gregory and Pillans. The teaching of Edinburgh University was a model for all other universities in the world. The University of London was but a stepmother to her graduates; the University of Edinburgh was an Alma Mater. He dwelt on the nobility of the medical profession, which satisfied all the aspirations of an honourable man. He wished men would regard their profession from its higher aspects, and look upon the public good as the first and all-important end. He said this because in the late discussion of some public questions the professional aspect instead of the public good had been put uppermost. If they kept the public good before them, professional good was sure to follow as a natural corollary. Dr. C. M. Cooper proposed "The Scottish Universities," and Sir William T. Gairdner replied. He agreed with all Sir William Priestley had said. He would only add that there were giants, but tremendously combative giants, in the professoriate of those days. He spoke of the great changes that had taken place in the system of medical teaching since his student days. Sir William Priestley proposed the toast of "The Royal Medical Society," and the Chairman replied; Dr. Herring gave "The Medical Corporations," and the Presidents of the two Royal Colleges replied; Dr. G. F. B. Simpson gave "The Royal Infirmary," and Professor A. R. Simpson replied.

THE LIVERPOOL LOCK HOSPITAL.

THE announcement has been made that the Committee of the Liverpool Royal Infirmary are about to close the wards of the Lock Hospital, an institution which, except for an interval of three years while the new infirmary was building, has received patients since the year 1834. Lock cases were previously treated in the ordinary wards of the infirmary, but at that time the demand for beds had become so great that the Committee decided to spend £2,000 in providing special wards for venereal diseases, with the result that the present Lock Hospital was built. The decision to close the hospital has been come to in consequence of insufficiency of funds to maintain it, and it has been decided to substitute for it an out-patient department to be conducted by the surgeon to the Lock Hospital. It is quite possible that the maintenance of beds for venereal diseases in a building separate from the main building of the infirmary entails a certain amount of unnecessary expense but there seems to be no reason why these cases should not be admitted into the infirmary itself. If, as is doubtless the case, the wards are already fully occupied there is plenty of room available for the construction of another ward. That this class of case should be refused aid in hospitals is contrary to the true spirit of medical charity, is a cruel injustice to many sufferers, and tends to perpetuate serious disease throughout the community. Venereal diseases are not excluded from the general hospitals of London, Edinburgh, and Dublin, and there is no obvious reason why the large hospitals in the provinces should follow a different system.

SIR DOUGLAS GALTON.

SIR DOUGLAS GALTON, K.C.B., who died on March 10th after a short illness, continued, though he had reached his 78th year, to take an interest in the sanitary matters which had so long engaged his attention up to within a few days of his death. Indeed, he had attended two meetings at the Sanitary Institute, of which he was Chairman of Council and Treasurer, on the very day his last illness began, although at the time in considerable pain. Sir Douglas Galton entered the Royal Engineers in 1840, and was at first largely concerned in railway work under the Board of Trade. His attention appears first to have been turned to sanitary matters owing to his appointment as a member of the Commission which visited the barracks and military hospitals of Great Britain and Ireland and the stations on the Mediterranean after the Crimean war, which had aroused public interest in questions affecting the health of the soldier. He designed the Herbert Hospital, Woolwich, and was known as the inventor of appliances for ventilating and heating public institutions and private houses. His last public appointment was that of Director of Public Works and Buildings in the office of Her Majesty's Board of Works. This he resigned in 1875 and since that date he had mainly occupied himself in sanitary engineering questions. He took an active interest in the foundation of the Parkes Museum, and after the amalgamation of that institution with the Sanitary Institute he continued to be a constant attendant at the meetings of its Council, over which he had presided for several terms.

PLAGUE AND THE MECCA PILGRIMAGE.

Something approaching alarm must be aroused by the news as to the outbreak of plague at Jeddah, the port of Mecca, on the Red Sea, and the behaviour of the authorities there. Attempts at enforcing quarantine regulations at Jeddah met with direct opposition by the pilgrims and residents; the troops, it is said, sided with the pilgrims when attempts were made at isolation. An outbreak of plague at Jeddah or Mecca will too probably be followed by the establishment of the disease in Egypt, Syria, and Turkey. With the shores of the Suez Canal infected the infection of Europe is a contingency quite within the range of possibilities, and one of the chief stepping stones in the path of infection is by way of the Mahommedan pilgrimages to Mecca. Any laxity in the sanitary regulations at Jeddah can but hasten the inroad. We observe in India also that the presence of plague is being taken as a matter of course, and that the stringent rules of segregation and isolation are giving place to social conveniences. We have no fear, however, of the Indian authorities losing their hold on the outbreak of plague; but in an uncivilised country, such as Hedjaz, with what authority there is set at defiance, and the possibility of spreading the disease unlimited, we cannot but feel concern.

THE QUARRELS OF ANTIVIVISECTORS.

The New England Antivivisection Society, of whose domestic troubles we had recently occasion to speak, is about to give the world another object lesson of the manner in which "zoöphilism" promotes peace and brotherly love among its adherents. An action is being brought by the treasurer of the Society to prevent the former president from disposing of its funds. From our point of view the funds of such bodies could hardly be better expended than in carrying on an internecine war among themselves. But however amusing these lovers' quarrels may be to outsiders, one wonders what the subscribers think of the money given by them for the protection of animals being used by those to whom they have entrusted it to fight each other.

MARTYRS OF SCIENCE.

Dr. Angelo Knorr, *Privat-docent* in the Veterinary School of Munich, died on February 22nd, from acute glanders, contracted in the course of an experimental research on mallein. Before going to Munich, Dr. Knorr had been senior assistant in the Berlin Institute for Infectious Diseases, and he was afterwards assistant in the corresponding institute at Marburg. He was a young worker of the highest promise, and had done good work in regard to tetanus infection. This death recalls some other tragic occurrences of the same kind which have taken place in recent years. Helman, the Russian investigator who discovered mallein, himself fell a victim to accidental inoculation of the glanders virus. Some time afterwards another Russian, Protopopow, died of glanders contracted in a French laboratory. An Austrian physician, Dr. Koffmann-Wellenhof, died of the same disease, contracted in the Institute of Hygiene at Vienna. On January 17th of the present year Dr. Giuseppe Bosso, of the University of Turin, died of infection contracted in the course of cultivations of tubercle bacilli made in his laboratory. Not long before Dr. Lola, assistant in the maternity department of the Czech University Hospital of Prague, died of tetanus caused by an experimental inoculation made on himself. Some fourteen or fifteen years ago a medical student of Lima proved that "verruga Peruana" is an infectious disease by inoculating himself with it, an act of scientific devotion which cost him his life. Only this week we have to record that Major J. F. Evans, of the Indian Medical Service, has died of plague contracted while conducting a *post-mortem* examination. There are doubtless others who have fallen on the same glorious battlefield, but *carent vate sacro.* Besides those who have died, there are many who have only escaped with their lives after long and painful illness. Professor Kourloff contracted anthrax in a laboratory at Munich, and was saved only by vigorous surgery. Dr. Nicolas supplied, in his own person, the first example of tetanus produced in man by inoculation of the pure toxin of the bacillus of Nicolaïer. John Hunter inoculated himself with a loathsome disease, and a London physician now living incurred the same penalty in the cause of science. Morton nearly killed himself with sulphuric ether, and Simpson more than once risked his life in experimenting with unknown anæsthetics. Let these facts—and with a little trouble the record could be made much longer—be remembered when antivivisectors taunt investigators with not daring to make experiments on themselves.

EAST COAST SUNSHINE.

Appended to the annual report of the medical officer for Felixstowe (Dr. C. G. Havell) are some meteorological notes for 1898, which are of interest as illustrating the type of climate to be found at many East Coast seaside places. The most striking fact is the very large amount of bright sunshine recorded. Unfortunately, the record does not include the first two months of the year. In the 10 months there were only 42 days in which no sunshine was noted. The highest amount recorded in any month was in August, when there were 262 hours, an average of 8.2 hours a day. In April there were 201.75 hours of bright sunshine, an average of 6.7 a day, while even in March there were 159.1 hours of bright sunshine, an average of 5.3 hours a day. But another table shows that the mean of the minimum temperatures for each day in April was 40.3° F., and for March 33.5° F., while extremes of 31° F. and 27° F. were noted in these months respectively; in fact, on two days in March the lowest temperature of the 10 months was noted. Again, the record of the force of the wind showed that not once in the 10 months was a calm noted, the nearest approach being a light or moderate breeze. The place where the observations are taken is much exposed, but the moral which the medical officer of health draws appears to be sound, and is applicable to other places on the East Coast besides Felixstowe, namely, that no opportunity should be lost of planting trees and providing wind shelters, since nothing is so detestable to strong and weak alike as incessant wind. These meteorological observations illustrate both the strong and the weak points of the climatic conditions on many parts of the East Coast, and especially perhaps in Suffolk and Norfolk. The large amount of spring sunshine, which is a great attraction and a great advantage to patients suffering from many forms of chronic disease, can only be enjoyed without risk when care is taken to guard against the low temperatures and winds which prevail, especially during this season of the year. Yet it seems to be the great ambition of the seaside places to build piers so as to tempt visitors into exposing themselves to the east or polar wind. Many sites for sanatoria, which could be rendered ideal if properly protected, exist in the district we have indicated.

GONORRHŒA, SEPTICÆMIA, AND HEART DISEASE.

Not very long ago it was taught that gonorrhœa was a serious local disease in the male but relatively trifling in the female. Then it was found that women often suffered from grave local complications. General infection is fortunately rare in either sex but it may occur. Drs. Thayer and Lazear have published an important monograph on Gonorrhœal Septicæmia and Ulcerative Endo-

carditis in the January Number of the New York *Journal of Experimental Medicine*. It contains much original work and a well-prepared table of 32 cases. The authors conclude that an acute gonorrhœal urethritis may be the starting point of a grave general septicæmia, with all its possible complications. The infection may be mixed or secondary, due to the entrance into the circulation of organisms other than the gonococcus, or they may be purely gonococcal. Endocarditis, an occasional complication of gonorrhœa, may be quite transient, or may result in a chronic valvular lesion, or may pursue a rapidly fatal course with the symptoms of acute ulcerative endocarditis. The complication is generally due to the direct action of the gonococcus, but may be traceable to a secondary or mixed infection. The same applies to gonorrhœal pericarditis, a rarer complication than endocarditis. Grave myocardial changes, necroses, purulent infiltration, embolic abscesses are common in the severe gonococcal septicæmias. In instances of this special form of blood poisoning the diagnosis may in some cases be made during life by cultures taken from the circulating blood according to proper methods. There is reason, when we remember the evidence already referred to about chronic valvular lesions, to suspect that cardiac disease may be more often a result of gonorrhœa than is usually supposed.

FAMILY PROCLIVITIES.

DR. JOHN THOMSON, in a note on the tendency in some syphilitic families for certain organs and tissues to be specially affected, which he published in a recent issue of the *Scottish Medical and Surgical Journal*, has touched on one aspect of a very interesting subject. The well-known proclivity of certain families not only to suffer from certain diseases, but to suffer from them in a severe form, is pretty generally recognised, but the number of instances actually on record is not very great. This proclivity must be assumed to be due to a power of resistance to the infection inferior to the average. Dr. Thomson's cases illustrate apparently a diminished power of resistance of certain tissues. Thus in one of his families four out of a family of seven children affected by congenital syphilis suffered from choroidal atrophy, choroiditis, or choroido-retinitis; one of the children died at the age of 9 weeks, and the two other children who escaped were respectively the eldest and youngest of the family. In another family of four the three elder all suffered from epiphysitis, while the youngest, about a year old, has thus far escaped any manifestation of the disease. In another family of twelve, only two survived infancy, and both the survivors were deaf and had syphilitic teeth. In another family of ten, the five younger children showed no signs of syphilis, but of the other five the only two who survived infancy suffered from periostitic swelling between 10 and 12 years of age. The theory has been advanced that among the offspring of syphilitic parents the disease is apt to fall with greater severity on one sex than the other—sometimes on the boys, sometimes on the girls. Dr. Thomson does not discuss this point, but it is not impossible that his cases might support the view, for it appears that in the family which showed changes in the fundus oculi, three out of the four affected were girls, and the lesion was more severe in them than in the boy. In the family with periostitis, all the three sufferers were boys. In the next family the two surviving children, who were deaf, were both girls, and in the fourth family both the surviving children were boys. On the other hand, it is no doubt true, as Dr. Thomson observes, that the congenital syphilitic taint seems, on the whole, to have a tendency to lessen with each succeeding child. At first there is a succession of miscarriages or still-ths; then one or two or three children are born alive but r from congenital syphilis, and the later born children ealthy, or at least present no manifest symptoms of the disease. This is, of course, a different point altogether, but it must be kept in view in any investigation into the question of the existence of a special liability of certain tissues to suffer more severely than others in certain families from the syphilitic virus.

PROSTATIC DISEASE CURED BY SUPRAPUBIC CYSTOTOMY.

MUCH has lately been written touching the cure of enlarged prostate by castration, excision of the vas deferens, and suprapubic cystotomy. The latter method is usually practised to establish a permanent drain. Tussau, of Mâcon, reports a case on which he operated over two years ago when urgent symptoms were present. The patient was 65, his prostate bulky and tender. Catheterism was difficult, the temperature 104°, the tongue dry and brown, and the general condition very grave. Tussau immediately opened the bladder above the pubes, when a quantity of fœtid urine escaped. For a month all urine was drawn off through the wound or escaped from the wound. Then the urethra was carefully catheterised. The wound, which at the end of the operation itself was left only wide enough to admit a No. 15 to 17 French catheter, was carefully closed during the second month by a plastic operation, where pins as well as silks were used to ensure apposition; the curette and thermo-cautery were likewise used to destroy granulations. At the end of the third month, according to the report in the *Lyon Médical* of February 12th, no more urine came through the scar. Since then the patient, who underwent the operation in July, 1896, has never required the catheter nor suffered from tenesmus, which previously had been most distressing. He takes care to avoid overdistension of the bladder. The prostate has completely returned to its normal proportions under the influence of the rest allowed it for several weeks after the operation.

IN addition to the course of lectures to be delivered by Mr. Treves at the London Hospital as Emeritus Professor, a course will be delivered by Mr. Jonathan Hutchinson, who also is an Emeritus Professor.

DR. THOMAS BARLOW has been appointed to fill the vacancy in the body of the University of London Commissioners, caused by the resignation of Sir William Roberts.

WE are requested to state that the date of the extra meeting of the British Balneological and Climatological Society, at 20, Hanover Square, for the further discussion on papers by Drs. Douglas Kerr and Hedley on heat as a therapeutic agent, has been altered from Wednesday, March 22nd, to Thursday, March 23rd.

WE understand that George Neil Stewart, formerly Professor of Physiology of the Western Reserve University, Cleveland, Ohio, U.S.A., and now of Wisconsin, M.A., D.Sc., M.D.Edin., D.P.H.Camb., formerly Senior Demonstrator of Physiology, Owens College, is also, or is about to become, a candidate for the Chair of Physiology in the University of Edinburgh.

THE IRISH UNIVERSITY QUESTION.—We are informed that at a general meeting of the Belfast Medical Students' Association, resolutions were passed to the effect that the present state of university education in Ireland is unsatisfactory; that the establishment of denominational universities cannot fail to be detrimental to medical education in Ireland, and that the Royal University of Ireland should be maintained, but that the various public colleges should be adequately endowed.

MEDICAL NOTES IN PARLIAMENT.

[FROM OUR LOBBY CORRESPONDENTS.]

The London School for Tropical Diseases came under discussion in the House when the Civil Service supplementary estimates were taken. The Colonial Secretary explained that his great object was to lessen the mortality more especially in the West African colonies. He believed that preventable causes were at the bottom of the unnecessary mortality, and one cause was the want of good nursing. A private body, the Colonial Nursing Association, would undertake to remedy this defect by sending out trained European nurses. A second cause was the difficulty of finding doctors acquainted with tropical diseases, and to remedy this he proposed to form a school for the study of tropical diseases, to which all medical officers should be sent for two months before going to West African stations. The grant asked for was for the necessary buildings for the accommodation of the students. The expenses would be defrayed partly by subscriptions raised at home and in the Colonies. In selecting officers for these colonies the Colonial Secretary said he would give preference to those trained at schools like Liverpool and King's College, where instruction in tropical maladies was regularly given. On both sides of the House the scheme was heartily approved, one member, not a medical man, saying that it was the best item in the whole of the supplementary estimates.

The London Hospital Bill is a private measure which awaits Committee in the House of Lords. It proposes to give the Governors of the hospital power to acquire certain lands and expend their funds in erecting an out-patient department. The measure is necessary to enable the hospital to acquire certain freehold lands and tenements, and also a block of almshouses, for a site for the department, towards which a gift of £25,000 has been promised.

Venereal Disease in the Army was the subject of a question to the Secretary for India last week, and elicited the information that the admission-rate had fallen to 485 per 1000 in 1897, as compared with 511 in 1896. The new cantonment rules were not brought into operation until towards the close of 1897, and could not be expected to do much for that year. The results of their working have not yet been ascertained, but the results for 1898, so far as they are known, were stated to be very encouraging.

The Tuberculosis Debate, which was to have occupied Tuesday, had to give way to the exigencies of Supply. The Army Estimates, which were to have occupied Friday night (March 10th), could not be taken as they had not been entered on the printed notice paper sent to members. Under these circumstances, the House adjourned before half-past seven, and on Monday the First Lord deprived private members of Tuesday night on account of the necessity for passing the Estimates. A vigorous protest was raised against this course. Many members on both sides of the House were anxious that the subject of tuberculosis in animals and its bearings on agriculture and public health should be fully discussed before private Bills giving increased powers to local authorities to deal with these diseases were submitted for second reading. The Leader of the House could not, however, meet their wishes, and carried his point by a large majority. The victory was a barren one, however, for when Tuesday came private Bills connected with railways lasted till 7, and the absence of the Chairman of Ways and Means prevented the use of the closure, and so the Government passed no Estimates after all.

Army Nursing Sisters are required—the Under-Secretary for War told the House on Monday—to have three years' training in a civil hospital, and six months' probation in the Army Nursing Service, before final appointment. A private of the Royal Army Medical Corps receives instruction at Aldershot for five months; after that he is attached as a supernumerary to a large military hospital to learn nursing and ward work, and he remains there till efficient. The education is, moreover, systematically continued as long as he is with the colours. The Royal Army Medical Corps is responsible for all hospital duties, but all the men are available for nursing duties, and perform them in turn.

The Contamination of Oysters by Sewage has at last been promised the attention of the Government, and a Bill will be introduced shortly which will deal with the matter.

The Petroleum Bill called together a large House on Wednesday afternoon, and produced a most animated debate. There has not been for some years a Bill on which so much printer's ink has been expended. Members have for weeks past been deluged with printed matter, and the daily papers (morning and evening) have taken a most active share in giving the public information. The speakers had therefore plenty of material, and some of them spoke with remarkable knowledge and effect. There was a great deal of cross voting on the division, which ended in the rejection of the Bill by 244 to 159, and so the "deadly 73°," as it has been picturesquely called, has won the day.

The University Degrees Bill was moved immediately after the division had been taken on the Petroleum Bill, but was promptly objected to by several members, and the second reading postponed till a later day. As medical graduates of colonial and foreign universities are using their influence against it, there is not much chance of its being passed this session.

THE KANTHACK MEMORIAL FUND.

DR. J. H. DRYSDALE (25, Welbeck Street, W.) requests us to publish the following list of subscriptions received up to March 14th towards this fund:

	£	s.	d.
Mrs. L. Andrews	5	5	0
James Berry, F.R.C.S. ...	3	3	0
Harrison Cripps, F.R.C.S....	2	2	0
H. J. May, M.B.	5	0	0
W. P. Herringham, M.D. ...	2	2	0
F. E. Batten, M.D.	1	1	0
E. W. Willett, F.R.C.S. ...	5	5	0
W. S. Church, M.D.	10	10	0
H. G. Read, M.R.C.S., L.R.C.P.	1	1	0
Sir T. Smith, Bart.	10	10	0
Sir James Paget, Bart. ...	2	2	0
W. S. A. Griffith, M.D. ...	10	0	0
F. W. Andrewes, M.D. ...	5	5	0
D'Arcy Power, F.R.C.S. ...	2	2	0
H. W. P.	5	5	0
H. M. Fletcher, M.D. ...	10	10	0
A. E. Garrod, M.D.	5	5	0
P. Furnivall, M.D.	5	5	0
C. P. White, F.R.C.S. (Leeds)	5	5	0
W. G. Heasman, M.R.C.S., L.R.C.P.	5	5	0
C. A. Ballance, F.R.C.S. ...	5	5	0
G. E. G. Metcalfe, L.R.C.P.	1	1	0
H. Rundle, F.R.C.S.	2	2	0
G. Saunders, M.D., C.B. ...	2	2	0
D. R. P. Stephens, F.R.C.S.	1	1	0
Anonymous	10	0	0
L. Thorne Thorne, M.D. ...	1	1	0
R. F. Jowers, F.R.C.S. ...	2	2	0
C. P. Handson, M.D.... ...	1	1	0
F. D. Bennet, M.R.C.S., L.R.C.P.	1	1	0
E. W. Roughton, F.R.C.S. ...	1	1	0
A. McWeir, M.D.	1	1	0
W. D. Stone, M.D., F.R.C.S.	1	1	0
G N. Stephen, M.R.C.S. ...	1	1	0
Surgeon-Major-General R. W. Rice	10	10	0
H. A. Ballance, M.D., F.R.C.S.	1	1	0
L. G. Glover, M.D.	2	2	0
J. H. Ormerod, M.D. ...	3	3	0
Sir Felix Semon	10	10	0
W. S.	1	1	0
Mr. W. P. Digley	1	1	0
S. J. Ross, M.B.	1	0	0
H. W. Maidlow, M.D. ...	0	10	6
Surgeon W. J. Codrington, R.N.	0	10	0
W. G. Clark, F.R.C.S. ...	10	10	0
H. J. Capon, M.D.	1	1	0
H. B. Maingay, F.R.C.S. ...	1	1	0
H. Willoughby Gardner, M.D.	3	3	0
H. Huxley, M.R.C.S., L.R.C.P.	5	0	0
G. R. Murray, M.D.	2	2	0
H. T. Butlin, D.C.L., F.R.C.S.	10	10	0
F. de Havilland Hall, M.D...	3	3	0
J. Westlake, Q.C.	5	0	0
J. A. Hayward, M.D.... ...	5	5	0
A. E. Wynter, M.D.	2	2	0
J. H. Lightbody, M.D. ...	2	2	0
G. H. R. Holden, M.D. ...	1	1	0
A. Kuttner, M.D. (Berlin) ...	10	0	0
F. P. Weber, M.D.	2	2	0
T. M. Legge, M.D.	5	0	0
T. Lauder Brunton, M.D., F.R.S.	10	10	0
G. C. Taylor, M.B.	1	1	0
W. Langdon Brown, M.B. ...	1	1	0
Sidney Martin, M.D., F.R.S.	3	3	0
C. Butler, M.D....	5	5	0
A. W. Blackwell, M.D. ...	0	10	6
Lovell Drage, M.D.	5	0	0
Hon. G. Scott	2	2	0
Captain H. A. Berryman, R.A.M.C.	2	2	0
T. G. Horder, M.B.	1	0	0
T. S. Stevenson, M.D. ...	2	2	0
Total	267	10	0

THE United States Congress has been asked by the Bureau of Education for an appropriation of $10,000 (£2,000) "for a psychophysical laboratory, and for the collecting of sociological and abnormal or pathological data, and for necessary printing, including special reports on results of work."

THE SWISS "PHARMACOPŒIA."—The Special Committee appointed on August 1st, 1898, to prepare a new (fourth) edition of the *Pharmacopœia Helvetica* was, it appears till lately, in a state of suspended animation owing to the want of funds. This difficulty has now been got over by a vote of the Federal Assembly, and the Committee is hard at work on its responsible task.

THE MIDWIVES BILL.

THE DRAFT BILL OF THE BRITISH MEDICAL ASSOCIATION CONTRASTED WITH THE BILL OF THE MIDWIVES BILL COMMITTEE.

ELSEWHERE in the present issue of the BRITISH MEDICAL JOURNAL will be found the report of the special meeting of the Council of the British Medical Association, which was held on March 10th, to consider the draft Bill of the Parliamentary Bill Committee, embodying the amendments which are necessary in the Midwives Bill of the Midwives Bill Committee. The following tabular statement of the main points of difference between the two Bills may be found useful:

MIDWIVES BILL COMMITTEE.	BRITISH MEDICAL ASSOCIATION.
Midwife undertakes for gain to attend women in childbirth.	Midwife undertakes for gain to attend women during natural labour and the lying-in period under the rules, regulations, and medical control, etc., set forth in the Act. Midwife is debarred from employing an unlicensed substitute. Restricts privileges to attendance in cases of natural labour only in accordance with rules, etc., to be laid down; prevents the assumption of the title "Licentiate in Midwifery (4 (2)); penalises the giving of certificates of stillbirth or death, or any medical certificates, and provides that fees shall not be recoverable if unlicensed deputy used.
Makes L.O.S. and L.M. certificates entitle to licence without other evidence.	Makes Board sole judge of certificate which shall entitle to licence, and requires evidence of good character in all cases.
Board to be constituted of members representing London Corporations, Midwives Institute, and Privy Council.	Board to be elected by General Medical Council and to be representative of districts, with one representative of Privy Council. Teachers and instructors of midwives may not serve on Board. Includes lying-in homes among the matters over which the Board have control, gives power of deputing inquiries to Committees, with power to act, and makes it misconduct to omit to send for medical practitioner when case not natural labour. Provides for cost of local supervision.
Local supervising authority to be County M.O.H. or other practitioner or practitioners.	Local supervising authority to be a county committee of not fewer than three registered medical practitioners not teachers or examiners of midwives. Gives local authority power to suspend from practice pending inquiry by Board.

CRITICISMS BY THE MIDWIVES' INSTITUTE.

We are informed that the following letter is being sent to the Midwives Bill Committee from the Incorporated Midwives' Institute:

12, Buckingham Street, W.C.,
March 14th, 1899.

To the Chairman of the Midwives Bill Committee.

SIR,—The Council of the Incorporated Midwives' Institute, after a conference with their members, have requested me as their representative to lay before your Committee their views on the present Bill.

The Council of the Incorporated Midwives' Institute consider this Bill inferior to that of last year, but they are however so strongly impressed with the urgent need for legislation that they will offer no opposition to the present Bill so long as the following points are insisted on:

1. That the final decision in all cases be in the hands of the central authority. (See Clause 9, Duties of Supervising Authority; and Clause 10, Annual and Local Certificate.) They consider with regard to Clause 10 that their interests are not sufficiently safeguarded.

2. That their representation on the Central Board is retained, and that an amendment is asked for "That the nominees of the Privy Council should be two lay persons, one a woman."

3. That the certificate of the London Obstetrical Society be retained as a qualification for licence.

Your Committee will doubtless consider that those three points are some of them already dealt with in the Bill, and that the others will follow as a natural sequence. The reason the Council of the Institute have called your attention to them is because of the amendments to this Bill that have appeared in the BRITISH MEDICAL JOURNAL, and which will doubtless be largely supported by the medical profession.

The Council of the Incorporated Midwives' Institute consider the machinery of the new clauses to be so complicated that they will prove unworkable, and provide only a "nominal" protection to the mother, and the "pretence" of a monopoly of practice to the licensed midwife. They consider the unconscientious midwife will have every opportunity of evading the law, while the conscientious midwife is controlled at every turn, and might possibly fall a victim to local jealousy, owing to the preponderance of medical representation on the Midwives Board. A further danger is created by the uncertainty regarding the official position of the person to be appointed as local supervising authority.

I remain, Sir, your obedient servant,
ROSALIND PAGET,
Honorary Treasurer Midwives' Institute, and Representative on the Midwives Bill Committee.

FOOD AND DRUGS LEGISLATION.

Two Bills are now before Parliament dealing with this matter. One is backed by Mr. Kearley, Mr. Lough, Sir James Kitson, and others, and is practically the same Bill that has been introduced on several previous occasions and which honestly attempts to carry out the suggestions made by the "Select Committee of the House of Commons which sat during the sessions 1894-5-6 and, after collecting a vast body of evidence, reported in June, 1896."[1] Last session a Government Bill dealing almost entirely with dairy produce was introduced. The chief objection to it was that it was a weak bantling, hurtful chiefly from its not doing what it was intended to do, and by its very presence preventing the passage of a proper measure. This year the President of the Board of Agriculture, as was pointed out in our last issue, has introduced another Bill of the same rachitic diathesis, and by pressure of the Government majority this was read a second time on Thursday week (March 2nd, 1899). It has not yet been committed, and it is of the utmost importance that all who take an interest in seeing a wisely planned and efficient measure substituted for the present anomalous and scrappy legislation on a subject so essential to the health of the community should use every endeavour to secure that what we may conveniently call the "Select Committee's Bill," distinguishing it in that way from the Bill of the agriculturists, should be read a second time and sent by the House to the Grand Committee on Trade along with the farcical little measure of the Government.

THE GOVERNMENT MEASURE.

Mr. Long's "Bill to Amend the Law relating to the Sale of Food and Drugs" modestly consists of 23 sections. It has three parts, entitled respectively Agricultural Products, Sale of Food and Drugs, and Supplemental. Of the eleven sections which make up the first part, the first deals with the marking of imported packages of adulterated or impoverished milk, butter, and cheese, and makes the Custom House the prosecuting authority, giving them power to examine samples. By the second section the power of sampling for analysis any articles where their condition affects "the general interests of agriculture in the United Kingdom" is given to officers of the Board of Agriculture. If (Section III) the Board of Agriculture are of opinion that the local authority have been in default, "and that their failure affects the general interests of agriculture," the Board's officers may be directed to act in lieu of, and at the expense of, the authority. Section IV is a fine example of how not to do it. It makes, of all people in the world, the Board of Agriculture a Board of Reference to determine what deficiency of natural ingredients, and what proportion of foreign ingredients, shall constitute adulteration. This power is limited, however, to dairy produce. There is a good deal about margarine in the four following sections, and the last of these, the eighth, makes it penal to adulterate margarine with butter to more than 10 per cent.—a fine example of "hysteron proteron." Section IX requires a milkvendor to have his name on his cart; X requires that portions of samples taken during transport in a public conveyance be forwarded to the consignor; and XI concerns the labelling of condensed and separated milks.

Part II is apparently far less important in the opinion of the promoters than Part I, and contains a few trifling enactments about notice of mixtures, non-opening of duly-labelled tins, limits of notice, provisions as to warranty and certificates of analysis, more or less harmless. This cannot safely be predicated of Section XIII, which seems to us to afford the fraudulent dealer an easy escape from all his troubles at the hands of the sanitary officer. It puts it into his power, by refusing to receive a portion of the sample which the Section compels the officer to deliver to him, to put the latter entirely out of court. It is as fine an example of muddling as can easily be met with, even in a Government measure. Section XIV prescribes maximum penalties for second and third offences, but no minimums. As the sale of dirty water instead of milk is an extremely profitable undertaking, and as the magistracy are too apt to be lenient with even hardened offenders, this is a mistake. The Bill, as already said, is a poor little bantling. That it should perish with the "innocents" at the end of the session is too good a fate for a measure which is hurtful by its very existence. Its passing would prevent the passage of a real Bill.

THE "SELECT COMMITTEE'S BILL."

This Bill, backed by Mr. Kearley, Mr. Lough, Sir James Kitson, and others, and which has on previous occasions in nearly its present form been noticed in our columns, goes a long way in the direction of removing the difficulties experienced tn the satisfactory working of the existing Acts of 1875 and 1879. The Bill embraces the main provisions of these Acts and of the Margarine Act of 1887, and introduces amendments.

The definition of the term "food" is extended so as to comprise "any article intended to enter into or be used in the preparation of human food and flavouring matters and condiments." This extension is of obvious value, and it will serve to remove the anomaly that such an article as a baking powder has been held to be beyond the scope of the 1875 Act, seeing that it was not used either as a food or as a drug. Unfortunately the Act is so worded that it might include a frying-pan.

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[1] Report of City Analyst and Medical Officer of Health to Leeds Sanitary Committee.

For a second offence committed within two years of the previous one the penalty imposed by this Bill could not be less than £5, or, for a third offence committed within two years of the second, less than £20. After a second conviction a notice of the fact might be ordered by the Court to be affixed to the premises of the person convicted, and the facts might be advertised in such newspapers as the Court might order.

The Bill would make it an offence for any person, whether as owner, consignor, consignee, agent, or broker, to have an adulterated, impoverished, or altered article of food or drug in his possession, provided that he cannot show that such article was not intended for sale by retail without notice of such alteration, and the importation of adulterated articles is prohibited.

When under the Act of 1875 the defendant was able to produce a written warranty that the article was the same in nature, substance, and quality as that demanded of him by the prosecutor, and that he sold it in the same state as when he purchased it, he was discharged from the prosecution; and as all proceedings must be taken with respect of perishable articles, such as milk, within twenty-eight days, it was generally too late to proceed against the warrantor, who thus very commonly escaped punishment. This was a very obvious flaw in the Act, and the present Bill meets the difficulty in the following way: "Provided that such defendant shall not be entitled to be so discharged unless he shall give notice to the prosecutor that he intends to rely upon such defence, together with the name and address of the person giving the alleged warranty, and unless he shall summon before the Court the person upon whose warranty he so relies." If, moreover, the defendant is discharged from the prosecution, the prosecutor shall be entitled forthwith to proceed against the person giving the warranty; and where the person summoned gives notice to the prosecutor of his intention to rely upon a warranty, the prosecutor shall forthwith deliver to the person who shall have given such alleged warranty a sample of the article in respect of which the proceedings have been taken.

The provisions for dealing with samples are therefore amended to the extent that the article must be divided into four parts. One part is to be delivered to the seller or his agent, another to the analyst, and the other two parts to be retained by the officer, the fourth part being required to satisfy the above-mentioned requirements as to warranty.

An important provision is made for the taking of a minimum number of samples by a local authority, and the minimum is fixed at not less than one sample per annum for every 1,000 inhabitants.

Probably the most valuable section in the new Bill before Parliament is that which provides for the appointment of a properly-constituted Board of Reference. The powers which it is proposed that the new Board should possess include the making of rules as to procedure before such Board; the power to call for documents and to compel the attendance of witnesses before it; to make rules as to the qualification of analysts and inspectors under the Act; to determine standards of composition for foods and drugs, and of the amount and kind, if any, of foreign substances to be allowed for the preservation or flavouring of foods; the power to examine food and drugs as to composition, and to devise and recommend methods for their examination, etc. Such a Board has long been wanted to lay down, authoritatively and definitely, standards of purity in respect of certain food stuffs, and to advise as to the selection of methods of examination with the view of establishing that uniformity of procedure among public analysts which is so desirable.

There are other valuable changes in the private Bill, and these are brought about by the repeal of the existing laws, and the re-enactment of the valuable and stable portions with such modification as experience has shown to be necessary. The Government Bill would add another piece of tinkering legislation to the confused mass of clauses relating to food and drugs. The private Bill, by repealing the former Acts, simplifies the whole matter. It is, we repeat, to be desired that the two Bills be sent to a committee to redraft.

NURSING AT THE SHOREDITCH INFIRMARY.

THE INFIRMARY BUILDINGS.

THE old but substantial buildings of Shoreditch offer many difficult problems to those who seek to adapt them to the needs of the present day. Hemmed in on all sides by the close quarters of a thickly-populated neighbourhood, with Hoxton Street in front, and the workhouse at the back extending to the Kingsland Road, both situation and buildings are as inelastic as can be imagined. The whole infirmary is certified for 515 patients; this includes epileptic, insane, and lying-in patients; they are distributed through three blocks, named respectively East, West, and Central. The Central Block, originally intended for administrative purposes, is cut up into small wards, which increase the labour of nursing. Several wards are appropriated to the chronic female patients, and besides this class, the female insane, epileptic, and imbeciles are in this block. The lying-in ward is in the East Block; it is on the ground floor near the mortuary, and there is no labour room, a most unsatisfactory arrangement. We were glad to hear that the removal of this ward is under consideration. The nursery is on the opposite side of the passage.

The wards in the East and West Blocks are oblong, of varying size, and containing from 28 beds to 8; the beds are rather close together, with the minimum of cubic space; between the beds are lockers for the patients' possessions and clothes. The new pattern of locker devised by Dr. Norton, the Medical Superintendent, is a great improvement on the old ones, many of which are still in use. New bedsteads of the Lawson Tait pattern are being introduced gradually, and "the pull," which is a great help in the nursing of heavy and helpless patients, is attached to some of them. The bathrooms are small, close, and unsuitable; the baths are copper, sometimes burnished, sometimes used for all improper purposes in the process of cleaning, as is the wont of the pauper class. The waterclosets are small, and fitted with the modern hopper pan; there was no accommodation for ward vessels. There is a large number of infirm in this infirmary—indeed, they cause a block in the wards; and the few day rooms are not nearly sufficient to relieve them. The workhouse infirm wards and the lunacy wards were also crowded. There is a small ward for isolation treatment.

MEDICAL OFFICER'S REPORT ON THE NURSING.

The guardians are quite alive to the necessity of remodelling the nursing of the infirmary, and in July of last year Dr. Norton presented an exhaustive report to the Board, in which he suggested that the nursing staff should consist of sisters, staff nurses, and probationers; the sisters to have had three years' training in a recognised hospital or infirmary. One sister should be placed in charge of each floor, and in each ward there should be a staff nurse, with one or perhaps two probationers for day duty. At night a staff nurse and one probationer for a floor, working under the supervision of a night superintendent. Extra nurses to be supplied if required. Dr. Norton estimates for a staff of nurses in the proportion of one nurse to eleven patients, including seven or eight sisters. There is one suggestion with regard to the payment of the probationers that we think well worthy of adoption and of imitation elsewhere; he proposes to pay them for the first year in two sums of £5, the first payment at the end of the first six months, and the second at the end of the year, giving them uniform. He anticipates that this scheme would choke off those unsatisfactory women who sample infirmaries during a three months' stay, and depart with a quarter's wage and the uniform. The sisters are being introduced gradually, but the infirmary at present is quite understaffed, as there is the usual difficulty in procuring probationers.

There is a separate nurses' home, providing a separate room for each nurse, and two recreation rooms connected with the infirmary by a covered way. The nurses' mess room is in the infirmary, and is served from the infirmary kitchen. At present there is no trained matron.

THE TRAINING OF THE PROBATIONERS.

It is proposed that probationer nurses should be trained under the sisters in the wards, class instruction being given by the home sister and the medical officers; a certificate is to be granted after an examination held by an outside examiner.

In considering this scheme for training, we see nothing to criticise in the theory, and we trust that in time this infirmary may become a training school for nurses. But to prevent disappointment, we think it well to ask what value the certificate will have in the nursing market, what standard can the nurse attain to? There can be no doubt that those probationers would be at a disadvantage who seek their training where there is no trained matron, for there must be a lack of that general nursing discipline which the matron alone can maintain. The authority of the sister does not extend beyond her ward, and the influence of the home sister is bounded by walls of the nursing home; the arch is without the keystone; and, until the guardians see their way to appointing a trained matron, the probationers will compete at a serious disadvantage with their more favoured sisters. It is to be feared that the best class of probationer will not be attracted to the infirmary until she is assured that the training she will get will be an all round training, including the discipline and the ruling of her daily life, as well as the theory and practice of nursing. Anything short of this only means the heart-breaking worry of perpetual change, which, while detrimental to good nursing, also gets the infirmary a bad name, which is difficult to live down.

We trust that the Local Government Board will soon be prepared to schedule all infirmaries whose certificate will be accepted as a guarantee of efficiency, and that the department will state the conditions which must be complied with by any infirmary claiming to be a training school for nurses.

SIXTH INTERNATIONAL OTOLOGICAL CONGRESS, 1899.

WE have received from Mr. Cresswell Baber, the Honorary Secretary-General, the following additional particulars relative to this Congress, which, as already announced, is to be held in London from August 8th to 12th, under the Presidency of Dr. Urban Pritchard:

The British Organisation Committee, which numbers over seventy members from Great Britain and the Colonies, has Mr. A. E. Cumberbatch for its Treasurer and Mr. Cresswell Baber for Secretary-General. It has also appointed the following Subcommittees, namely:

1. Reception: Vice-Chairman, Mr. Field; Honorary Secretary, Mr. R. Lake.
2. Excursion: Vice-Chairman, Dr. Dundas Grant; Honorary Secretary, Mr. P. Macleod Yearsley.
3. Dinner: Vice-Chairman, Mr. Mark Hovell; Honorary Secretary, Mr. L. A. Lawrence.
4. Museum: Vice-Chairman, Mr. C. A. Ballance; Honorary Secretary, Mr. Arthur H. Cheatle.

The President-Elect is Chairman of all the Subcommittees.

The meeting will be held at the Examination Hall of the Royal College of Physicians of London and Royal College of Surgeons of England, and the following details have been arranged:

On Monday evening, August 7th, a preliminary reception will be held by the President-Elect. On August 8th, 9th, 10th, and 11th the Congress will be in session, and will be followed on Saturday, August 12th, by an excursion for members and their lady friends.

The official languages of the Congress are English, French, German, and Italian.

The subscription, to include a copy of the *Transactions*, is fixed at £1, to be paid to the Treasurer, Mr. A. E. Cumberbatch, 80, Portland Place, London, W., before the opening of the Congress.

The subject chosen for special discussion is Indications for Opening the Mastoid in Chronic Suppurative Otitis Media, which will be introduced by Professor W. Macewen, of Glasgow; Dr. H. Knapp, of New York; Dr. Luc, of Paris; and Professor Politzer, of Vienna.

A museum of specimens and instruments relating to otology, shown by members, will be held during the meeting. Communications regarding the museum should be addressed to Mr. A. H. Cheatle, 117, Harley Street, London, W.

Intending members of the Congress are requested to send in their names to the Honorary Secretary-General as soon as possible, and in any case not later than May 1st. Titles of communications, together with a short abstract, to be sent to the Honorary Secretary-General by the same date. According to the regulations of the Congress no papers shall exceed fifteen minutes in reading, therefore all long communications should be read in abstract.

THE PLAGUE.

THE MECCA PILGRIMAGE.

WE learn from a well-informed correspondent in Constantinople that the first case of plague this year at Jeddah was recognised on February 22nd. The patient was a native of the Assyr (the mountain region between the Hedjaz and the Yemen), who was living in the Yemen quarter of the town. From that date up to March 6th, 13 deaths from plague were registered by the sanitary officials at Jeddah. The three first cases all occurred in the Yemen quarter. From March 1st to 6th, these officials were silent, owing probably to the circumstance that the Constantinople Board of Health, on being informed of the occurrence of plague at Jeddah, had ordered measures to be applied to that town of a vexatious and impracticable' character. Jeddah and its villages were surrounded by a sanitary cordon; the departure of pilgrims from Jeddah for Mecca, until they had performed a quarantine of ten days at a station outside Jeddah, was prohibited; pilgrims arriving at Jeddah were prevented from landing in the town, and compelled to land at a spot 10 kilometres to the north of Jeddah, where there was no landing stage. It was said that a landing stage would be built, but the approaches are dangerous owing to coral reefs. In the meanwhile, pilgrims who had already entered the town of Jeddah, and those that would arrive there before this landing stage was ready for them, were to be transferred to the lazaret, or to be retained on board ship.

On March 3rd the population of Jeddah rebelled against these measures, and an excited mob demolished the quarantine huts erected outside the town and plundered the shops of tradesmen within the town, causing a panic throughout the place. All the foreign consuls telegraphed to their Ambassadors in Constantinople to get the cordon abolished and allow freedom of intercourse between Jeddah and Mecca, and Sir N. O'Conor went at once to the Porte to urge this consular request. The Board consequently received a message from the Sultan in this sense, and abolished the cordon. Both in Jeddah and Mecca houses in which cases of plague may occur are directed to be inspected, isolated, and subsequently disinfected, the effects of persons suffering from the disease will be destroyed by fire, and general sanitary measures will be taken. A special hospital for plague-stricken patients is to be established at Jeddah. Ships arriving at any Turkish port from Jeddah will have to perform ten days' quarantine. In the meanwhile, a case of plague occurred at Mecca on March 6th in the person of a Bokhara pilgrim arrived from Jeddah.

CALCUTTA.

Major J. Evans, Professor of Pathology in the Calcutta Medical College, died of plague at Calcutta on March 13th. It is understood that he became inoculated with the disease whilst performing a *post-mortem* examination on a case of plague. He was appointed Surgeon on April 1st, 1886, and was promoted Surgeon-Major last year. He was called as a witness before the Special Plague Commission during its sittings in Calcutta, and was congratulated by the President on the interesting character of his evidence. By his untimely death in the discharge of duty pathology has lost a careful expositor and the Calcutta school an excellent teacher. He served with the Burmese expedition in 1887-89 (medal and clasp), and in the operations in Lushai, 1892, was with the Eastern Sonai column.

BOMBAY.

The number of deaths from all causes in the city of Bombay has fallen during the past week. The deaths attributable to plague, according to official records, numbered 1,064, but the actual number is probably 1,700. A decline of the epidemic of plague is confidently anticipated, and, judging from the falling off in the exodus of the natives, it may be assumed to have already begun. With the return of warm weather, the natives can now sleep out-of-doors, thereby diminishing the overcrowding of sleeping rooms.

POONA.

A recrudescence of plague, happily of no great moment as yet, has occurred in Poona. In the General Plague Hospital there were 31 cases under treatment on February 19th. At a meeting of plague volunteers in consultation with Major Reade it was resolved that a patient suffering from plague and occupying a good house might be treated in his own home; that suspicious cases were not to be removed from their homes until plague was definitely diagnosed; and that health camps should be opened free to persons desirous of occupying them.

THE SPECIAL COMMISSION.

At Ahmadnagar the evidence given went to show that plague commenced there in October, 1897, and ceased in March, 1898. The city was almost deserted, 20,000 people out of a population being removed from their homes. The number of deaths from plague, according to official returns, amounted to only 315, and owing no doubt to the exodus the death-rate for 1898 was lower than in any of the preceding five years.

The city was "disinfected," and, not only plague disappeared but cholera also. Contrary to reports elsewhere there was no great mortality amongst rats in Ahmadnagar, possibly this had to do with the smallness of the death-rate and the disappearance of the disease.

LITERARY NOTES.

THE *Medical Handbook of Life Assurance*, by Dr. James E. Pollock and Mr. James Chisholm, has recently been translated into the Danish and Dutch languages.

Messrs. Baillière, Tindall, and Cox have in the press a third edition of Sir William Broadbent's *Diseases of the Heart*, with additional chapters and illustrative cases; a new work by Sir Richard Thorne, on *The Administrative Control of Tuberculosis*. The same publishers will shortly issue in book form Mr. Berkeley Moynihan's Arris and Gale Lectures at the Royal College of Surgeons, on *The Anatomy and Surgery of the Peritoneal Cavity*, which have recently appeared in the BRITISH MEDICAL JOURNAL. Messrs. Baillière, Tindall, and Cox also announce several new editions of well known works.

M. E. Leroux, publisher to the French Ministry of Education and Fine Arts (28, Rue Bonaparte, Paris) will shortly issue a volume entitled *Rabelais, Anatomiste et Physiologiste*, by Professor Le Double of Tours. The work will contain 174 illustrations and 32 facsimiles. The author, who is himself a distinguished anatomist, endeavours to show that Rabelais, when his descriptions and particularly his similitudes are properly interpreted, was a pioneer in the field of anatomy of sufficient importance to entitle him to rank with Andreas Vesalius. His quaint comparisons of organs and structures to instruments, articles of household furniture and wearing apparel, ornaments, etc., are shown to be strikingly appropriate when placed side by side with the dissected parts as Rabelais saw them. Altogether Professor Le Double's work promises to be one of exceptional literary interest and historical value

According to the *Medical News*, the Board of Trustees of the American Medical Association met on February 17th, at Chicago for the purpose of selecting an editor for its journal. The result of the balloting was the unanimous election of Dr. George H. Simmons, of Lincoln, Nebraska, editor of the *Western Medical Review*, secretary of the Nebraska State Medical Society and of the Western Surgical and Gynæcological Association. The salary of the editor has been increased from $4,000 (£800) to $5,000 (£1,000) per annum, but according to a resolution adopted by the Board Dr. Simmons is compelled to devote his entire time to the interests of the journal. Dr. Simmons is said to be a well-informed medical journalist, a man of great executive ability, and a good organiser.

In Mrs. Ritchie's introduction to the eleventh volume of the "Biographical Edition" of Thackeray's works, now in course of publication, she refers to an article written by Sir Henry Thompson for the first number of the *Cornhill Magazine*. It did not, however, appear in that number, but in the fourth; the manuscript having somehow been mislaid by the able editor, as is occasionally the fate of manuscripts. The history of the article is told by Sir Henry in the following letter to Mrs. Ritchie:

> Before the *Cornhill* came out, your father told me that he intended to develop a new principle—that he thought that every man, whatever his profession, might be able to tell something about it which no one else could say, provided the writer could write at all; and he wanted to utilise this element. "So," said he, "I want you to describe cutting off a leg as a surgical operation, and do it so that a ship's captain at sea who had not a doctor on board, would be able to take a sailor's leg off by reading your description." Having heard in a letter from your father signed "Yours, in trouble," that the article was lost, I was very glad to learn by an envelope addressed to me with the following words, "The leg is found, W. M. T.," that the manuscript had come to light. The article finally appeared with a new title. When your father had read it, it struck him that the paper he had asked for might be somewhat painful, so he wrapped it up in something sweet for the British public to take, and called it Under Chloroform. I had brought the anæsthesia to the front for the same purpose.

The volume also contains a vigorous sketch of Thackeray by Sir Henry Thompson made about 1857, and the facsimile of a letter of congratulation written by Thackeray to Sir Henry, probably after his successful operation on the King of the Belgians. The letter runs as follows:

> Palace Green, Kn., Tuesday.
>
> MY DEAR THOMPSON,—Is it true about the 100,000 francs and the Grand Cross? Hip, hip, hooray! I don't want to borrow money, and am almost as pleased as if I had received it myself.—W. M. T.

The February number of the *Medical Chronicle*, just received, contains an announcement that after the issue of the March number the Council of the Owens College will cease to be proprietors of that periodical. The *Medical Chronicle* will in future be carried on at the Owens College under the direction of the following guarantors: Mr. Stanmore Bishop, Dr. Alfred Brown, Dr. Judson S. Bury, Dr. J. R. Carver, Dr. E. G. Clegg, Dr. Coutts, Professor Delépine, Professor Dreschfeld, Dr. Fothergill, Dr. Goodfellow, Dr. J. W. Grange, Dr. A. H. Griffith, Dr. Hodgkinson, Professor T. Jones, Dr. Kelynack, Dr. Larmuth, Dr. R. E. Lord, Dr. A. W. W. Lea, Professor Leech, Professor C. R. Marshall, Dr. Milligan, Dr. Moore, Dr. Mumford, Mr. J. E. Platt, Dr. H. W. Pomfret, Dr. Reynolds, Professor Sinclair, Mr. J. W. Smith, Dr. Graham Steell, Mr. F. H. Westmacott, Dr. Wild, Dr. Williamson, Mr. A. Wilson, and Mr. G. A. Wright.

The part played by rats and insects in the dissemination of plague has recently formed the subject of a careful investigation by Dr. P. L. Simond, an abstract of whose paper was given in the BRITISH MEDICAL JOURNAL of December 24th, 1898, page 1906. In *La Chronique Médicale* of December 15th Dr. P. Dorveaux quotes from a curious old work entitled *L'Esperon de Discipline*, by Antoine du Saix, published in 1532, some lines which may perhaps—with a little goodwill—be taken to contain the germ of the same notion. The author is speaking of the signs of the coming of plague:

> Il nous convient parler du signe unziesme,
> Lequel est tel, affin qu'au propost rentre:
> Quand la vermine et ce qui va du ventre,
> Qui par soleil donnant sur pourriture
> En lieux infectz prennent leur géniture,
> Comme formiz, vipères imperfectes,
> Mousches aussi de grands aisles refaictes,
> Vers à monceaulx et aultres animaulx
> Tant qu'aux jardrins emmy n'y a, ny maulx
> Qu'ilz ne soyent faictz par taulpes et par raz:
> Quand nombre grand de ce naistre verras,
> Et cognoistras s'en fuyr dessoub terre,
> Et le poisson dessoub l'eau à grand erre,
> Puis delaisser leur habitation
> Appertement, et propre mansion
> En s'enfuyant comme persequutez,
> Ou de quelqu'un griefvement agitez,
> Lors fault juger que l'eau est corrumpue, etc.

In short, when the air is full of insects engendered by "the sun kissing carrion," and when rats and such "small deer" come in crowds from underground, then a visitation of the plague may be looked for.

Although we may not be disposed to agree with M. Brunetière that science has become bankrupt, it may be admitted that her credit stands less high in the Exchange of thought than it did twenty-five years ago. Then enlightened persons thought they had solved the riddle of the universe by that blessed word "evolution." Now we have come to see that even this magic formula leaves one or two points unexplained. Materialism is going out of fashion, and even Mr. Herbert Spencer appears to be finding his intellectual raiment somewhat antiquated. Doubtless, however, there are still some who are content to accept Cabanis's definition of a man as "a tube open at both ends," and who find in that inspiring belief a rule of life sufficient for their purpose. To such myopic philosophers a paper on the "Spirit of the Age," read by Dr. Austin Williams, of Liverpool, at a conference of members of the Third Order of St. Francis held in that city not long ago, may be commended as a corrective of their mental vision. Dr. Williams renders unto science that which belongs to her in no grudging spirit; but he insists that she must not go beyond her proper sphere. Instruments of precision may tell us much, but there are secrets of which they can give no hint; or as Dr. Williams, suddenly waking to extasy the living lyre, sings:

> Ophthalmoscopes reveal the eye
> *But see not sight*, nor can descry
> Emotions that begat the tears
> Of sympathy, of joys or fears.
>
> Transparent may the body be
> Or by x rays through structures see;
> But not the life can we behold
> That vivifies; *yet is controlled.*

To *Nature* of March 2nd Italo Giglioli contributes an interesting article on Dante and the Action of Light on Plants. The best known passage in which the great poet alludes to the action of solar radiation on plants occurs in the *Purgatorio*, xxv, 77:

Guarda il calor del Sol che si fa vino
Giunto all' umor che dalla vite cola,

translated by Longfellow as follows:

Behold the Sun's heat which becometh wine,
Joined to the juice that from the vine distils.

These verses are, according to Signor Giglioli, but a powerful and poetic rendering of a passage in Cicero's *De Senectute*, a book much studied by Dante. Nevertheless, Dante's verses have a special interest in the history of vegetable physiology, for they drew attention to the importance of their meaning in two minds of such calibre as those of Galileo Galilei and Francesco Redi. Signor Giglioli thinks it not unlikely that the passage influenced Leonardo da Vinci in believing that "the sun giveth spirit and life to plants, and the soil with its moisture nourisheth them," leading him to make an experiment in which the importance of leaf function in the nourishment of plants was noted for the first time 200 years before Malpighi.

ASSOCIATION INTELLIGENCE.

PROCEEDINGS OF THE COUNCIL.

At a special meeting of the Council called for the purpose of considering the minutes of the special meeting of the Parliamentary Bills Committee of February 3rd, 1899, relating to the Midwives Bill, etc., held in the Council Room of the Association, 429, Strand, London, W.C., on Friday, March 10th, 1899,

Present:

Dr. Robert Saundby, LL.D., President of Council, in the chair.

Dr. Charles Parsons, Treasurer.

Dr. James Barr, Liverpool.
Dr. Michael Beverley, Norwich.
Dr. James Brassey Brierley, Old Trafford.
Mr. Langley Browne, West Bromwich.
Mr. Andrew Clark, London.
Dr. H. Radcliffe Crocker, London.
Brig.-Surg.-Lieut.-Col. E. F. Drake-Brockman, London.
Mr. George Eastes, M.B., London.
Dr. W. A. Elliston, Ipswich.
Dr. Freeland Fergus, Glasgow.
Sir Walter Foster, M.D., M.P., London.
Dr. John H. Galton, Upper Norwood.
Dr. J. Groves, Carisbrooke, Isle of Wight.
Dr. Henry Handford, Nottingham.
Mr. John D. Harries, Shrewsbury.
Mr. J. Hughes Hemming, Kimbolton.
Dr. Holman, London.
Dr. P. Sydney Jones, London.
Mr. Jordan Lloyd, Birmingham.
Dr. Roderick Maclaren, Carlisle.
Mr. N. C. Macnamara, London.
Dr. J. C. McVail, Glasgow.
Mr. R. H. B. Nicholson, Hull.
Surg.-Gen. T. F. O'Dwyer, Aldershot.
Mr. C. H. W. Parkinson, Wimborne Minster.
Dr. Frank M. Pope, Leicester.
Dr. Edwin Rayner, Stockport.
Mr. H. B. Robinson, London.
Dr. William Russell, Edinburgh.
Dr. L. W. Sedgwick, London.
Dr. G. E. Shuttleworth, Richmond.
Mr. Henry Stear, Saffron Walden.
Dr. W. L. Winterbotham, Bridgwater.
Dr. S. Woodcock, Old Trafford.

Read letters of apology for non-attendance from the President (Sir T. Grainger Stewart), Dr. J. Ward Cousins (President-elect), Dr. Henry Barnes, Dr. P. Maury Deas, Dr. T. M. Dolan, Professor David W. Finlay, Dr. Alfred Godson, Dr. Bruce Goff, Mr. T. Vincent Jackson, Mr. T. R. Jessop, Mr. Evan Jones, Dr. John William Moore, Mr. Jones Morris, Dr. R. W. Philip, Professor G. Hare Philipson, Dr. Phillips-Conn, Dr. George E. Rennie, Dr. E. Markam Skerritt, Dr. R. Somerville, Dr. J. Roberts Thomson, Dr. A. R. Urquhart, and Mr. T. Jenner Verrall.

The General Secretary read the notice convening the meeting.

The President of Council introduced Dr. Roderick Maclaren the representative of the Border Counties Branch, who attended the Council for the first time.

The Midwives Bill was then considered in accordance with minute 547 of the Parliamentary Bills Committee, namely:

Resolved: That the Midwives Bill thus amended be adopted and referred to the Council for adoption, as that form of legislation on this subject which alone includes adequate safeguards, both for the public health and for the interests of the medical profession.

It was moved, seconded, and resolved: That this Council hereby adopt the principle of the Bill drafted by the Parliamentary Bills Committee.

The Bill was then considered clause by clause, and adopted as amended.

It was moved and seconded:

That, should a Midwifery Bill be introduced into Parliament, the Council authorises the President of Council and the Chairman of the Parliamentary Bills Committee to take such action as may be necessary to promote legislation upon the lines indicated by the Bill approved by the Parliamentary Bills Committee and as now amended.

Whereupon a rider was moved and seconded:

That the Bill, as presented by the Parliamentary Bills Committee and adjusted by the Council, be not issued excepting as preceded by the following statement, as it may be adjusted by the President of Council and the President of the Parliamentary Bills Committee:

That the Council of the British Medical Association are of opinion that the Midwives Bill promoted by the Midwives Bill Committee for the licensing of midwives would constitute a serious menace to the health of women and infants, and that the evils which this Bill is likely to create are much greater than the evils which it is intended to cure. The Council considers it impolitic that, so soon after hundreds of men with years of training at recognised medical schools and with large experience in the practice of medicine, surgery, and midwifery, have, for the greater safety of the public, and owing to their want of registrable diploma in medicine, surgery, and midwifery, been thrown out of employment as practitioners' assistants, an indefinite and probably a very large number of women should, after only three months' training, obtain a licence to practise in an important department of the medical art. At the same time the Council, recognising that legislation with regard to midwives is likely to be undertaken, feel it to be their duty to do all in their power to render such legislation as little mischievous as possible. They therefore have carefully revised the Midwives Bill with a view to its improvement, and they are of opinion that the amendments suggested in the Bill make less inadequate the safeguards both for the public health and the interests of the medical profession.

The rider was put from the Chair, and declared to be lost.

Whereupon an amendment was moved and seconded:

That inasmuch as the general meeting of the members of the Association has always protested against the registration of midwives, the President of Council is requested to call a general meeting of the Association to again consider the question.

The amendment having been put from the Chair, the same was declared to be lost, two only voting in favour of it.

The original motion was then put from the chair, and declared to be carried.

Read communication from the Lancashire and Cheshire Branch respecting the Midwives Bill:

72, Rodney Street, Liverpool, March 1st, 1899.

The President of Council of the British Medical Association.

Dear Sir,—At a meeting of the Lancashire and Cheshire Branch, held in Liverpool yesterday, the following resolution was adopted:

"That the Lancashire and Cheshire Branch of the British Medical Association considers that the Midwives Registration Bill at present before Parliament is defective in matters of control and limitation of practice, and in other respects; that these defects are met by the amendments adopted by the Parliamentary Bills Committee of the British Medical Association, and urges on the Council of the Association the advisability of submitting these amendments to the Privy Council and to the General Medical Council, should there be indications of legislation on this question going forward."

I am, dear Sir, yours very truly,
James Barr.

The question from the Scottish Poor-law Medical Officers' Association, asking for a Bill to be introduced into the House of Commons on the basis of "a Bill to amend the Local Government (Scotland) Act, 1894," and petition to Lord Balfour of Burleigh on the subject was then considered, in accordance with resolution 550, namely:

Resolved: That Mr. Alexander Cross, M.P., be invited to introduce a Bill into the House of Commons on the basis of a "Bill to amend the Local Government (Scotland) Act, 1894," and that the petition to Lord Balfour of Burleigh be signed by the Chairman on behalf of this Committee.

Resolved: That the action of the Parliamentary Bills Committee be sanctioned and approved.

The question of a central fund for the payment of superannuation allowances to Poor-law officers was then considered, in accordance with Resolution 553, namely:

Resolved: That a Subcommittee be appointed to consider the question of the formation of a central fund for the payment of superannuation allowances to Poor-law officers, with power to confer with the Poor-law Officers' Association, and to report back to this Committee at its next meeting, consisting of Mr. Balding, Dr. Major Greenwood, Dr. Groves, and Mr. Parkinson.

Resolved: That the action of the Parliamentary Bills Committee be sanctioned and approved.

Resolved unanimously: That the best thanks of the Council be presented to Dr. Woodcock, Chairman of the Subcommittee of the Parliamentary Bills Committee, for the enormous pains and time he has bestowed upon the Midwives Bill.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday the 12th day of April next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

429, Strand, March 9th, 1899.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1899.

MEETINGS of the Council will be held on April 12th, July 12th, and October 11th, 1899. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, March 23rd, June 22nd, and September 21st, 1899.

ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

OXFORD AND DISTRICT BRANCH.—The next meeting of this Branch will be held at the Radcliffe Infirmary on Friday, March 24th, at 3 P.M. Members wishing to read papers, etc., are requested to communicate with the Honorary Secretary as early as possible.—**WM. COLLIER**, St. Mary's Entry, Oxford.

SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT.—The next meeting will be held at the Infirmary, Worthing, on March 23rd, at 4 o'clock. Dr. Leeds Harrison will preside. Mr. Anthony Bowlby will read a paper on Cases of Abdominal Surgery, illustrating (*a*) Actinomycosis of the Intestine, (*b*) Acute Pancreatitis, (*c*) Unusual forms of Suppuration about the Cæcum and Appendix. Dr. Harrison and Dr. Morris will show cases of Transposition of Viscera. Members desirous of making communications, or of showing cases of interest, are requested to communicate with the Honorary Secretary, **FRANK HINDS**, 14, The Steyne, Worthing.

SOUTH-EASTERN BRANCH: EAST KENT, WEST KENT, AND NORTH KENT DISTRICTS.—A conjoint meeting of the above Districts will be held at St. Bartholomew's Hospital, Rochester, on Tuesday, March 21st, at 3 P.M., Dr. T. T. Brunyate in the chair, when Mr. Victor Horsley, F.R.S., will deliver an address on the Present Condition of the Medical Practitioner and his Relation to the General Medical Council. Dinner at the Bull Hotel at 6 P.M.; charge 6s. exclusive of wines. All members of the South-Eastern Branch are entitled to attend and to introduce professional friends. The Honorary Secretary of the West Kent District would be much obliged if members would kindly inform him by post-card whether they intend, if possible, to be present at the dinner. By so doing they will very materially facilitate arrangements and promote the success of the meeting.—**LUDFORD COOPER**, St. Bartholomew's Hospital, Rochester, Hon. Sec. West Kent District; **T. F. RAVEN**, Broadstairs, Hon. Sec. East Kent District; **A. TENNYSON SMITH**, Orpington, Hon. Sec. North Kent District.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of this District will be held at the Grand Hotel, Brighton, on Thursday, March 23rd, at 5.15 P.M. Dr. Waring in the chair. Agenda.—To fix the place and date of next meeting and to nominate a member of the Branch to take the chair thereat. Mr. T. Jenner Verrall: Perforated Gastric Ulcer; Operation; Recovery. Dr. Mackey: Clinical Notes on some Remedies in Skin affections. Dr. Batterham (for Mr. Ticehurst): Intussusception; Resection of Bowel; Recovery (with specimen). Mr. A. H. Dodd: Photograph and Skiagraph of a case of Suppression of Toe. Mr. W. H. Dodd: An Unrecognised Fracture of the Femur, illustrated by skiagraph. Dr. Watson Griffin will show a case of Acquired Interstitial Keratitis. Dinner at the Grand Hotel, 7.15 P.M.—**J. W. BATTERHAM**, M.B., Grand Parade, St. Leonards-on-Sea, Honorary Secretary.

YORKSHIRE BRANCH.—The next meeting of the Branch will be held at the Infirmary, Leeds, on Wednesday, March 22nd, at 3.15 P.M. The following business will be transacted and papers read. The resolutions of the Council *re* amendment of the Vaccination Act will be considered. Dr. Sharp (Whitby) will propose: "That this meeting feels that the time has now come when the general practitioners of the United Kingdom are entitled to demand a much larger share of direct representation on the General Medical Council." The President (Dr. Dolan) will read a note on the Midwives Bill. Dr. F. W. Smith (Harrogate): Notes on the Treatment of Rheumatoid Arthritis by Superheated Hot Air. Mr. Littlewood (Leeds): Notes on Two Cases of Bullet Wound of the Bowel treated by Abdominal Section and Suture. Patients will be shown. Dr. Solly (Harrogate): A Case of Abdominal Injury presenting some Interesting Points. Dr. Bain (Harrogate): On the Excretion of the Alloxur Bases in Gout. Dr. Herbert Rowe (Leeds) will show an Aseptic Obstetric Case. At the last meeting of the Branch it was decided to send out circulars to all unattached members of the Association residing in Yorkshire, requesting them to join the Branch. No fewer than seventy members have responded to this appeal, and their names will be submitted to the Council of the Branch for election. Any unattached member of the Association residing in Yorkshire who wishes to join the Branch should send his name to the Secretary before Wednesday, March 22nd.—**A. BRONNER**, M.D., 32, Manor Road, Bradford, Honorary Secretary and Treasurer.

WEST SOMERSET BRANCH.—The spring meeting of this Branch will be held at the Railway Hotel, Taunton, on Friday, April 7th, at 5 o'clock. Agenda: Communications from the General Council and from the Worcestershire and Herefordshire Branch on the vaccination question. Discussion on Constipation, introduced by the President, Mr. Routh. Notice of papers or communications should be sent to the Honorary Secretary early. There will be a dinner at 6.30 at the Railway Hotel, price. 5s., exclusive of wine. Members intending to dine are requested to communicate with the Secretary on or before April 3rd.—**R. LIDDON MEADE-KING**, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: WEST LONDON DISTRICT.—The next meeting of this District will be held on Thursday, March 23rd, at the Western General Dispensary, Marylebone Road, N.W. (near Edgware Road and Baker Street Stations), at 5 P.M., by kind permission of the staff. G. Crawford Thomson, M.D., V.P., in the chair. Agenda.—Dr. Gibbes: Prognosis in Aortic Regurgitation, illustrated by cases. The Staff: Clinical Cases. Tea and coffee at 4.30 P.M.—**THOMAS DUTTON**, M.D., 13, Holland Park Avenue, W., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.

A MEETING of this District was held at the London Temperance Hospital on March 8th, Dr. MORTON in the chair.

Confirmation of Minutes.—The minutes of the last meeting were read and approved.

Surgical Treatment of Gastric Ulcer.—Mr. L. A. BIDWELL read a paper on this subject. Operation might be required for (*a*) perforation; (*b*) large hæmorrhage, if repeated; (*c*) frequently recurring small hæmorrhages; (*d*) effects of adhesions or dilatation of stomach from pyloric cicatrisation. The symptoms of perforation of gastric ulcer were reviewed. The statistics of cases operated upon pointed unmistakably to the utmost importance of early operation. Mr. Bidwell then described the various steps in operations with perforations on the anterior surface, and perforations on the posterior surface of the stomach. The question of subphrenic abscess arising from leakage from a gastric ulcer was next considered. In the case of hæmorrhage from gastric ulcer, the possibility of the erosion of the mucous membrane being only superficial was emphasised. In some cases of gastric ulcer which resisted medical treatment, he strongly advocated surgical relief, and the choice lay usually between gastro-enterostomy and pyloroplasty. With recent operations the mortality apparently does not exceed 12 to 15 per cent. (for example, 185 cases and 27 deaths). Operation might be needed to break down adhesions from gastric ulcer, pain not infrequently being the only symptom present (pain in the early morning). Cases were referred to. The paper was subsequently discussed.

Visit to Wards.—Dr. SOLTAU FENWICK showed the members round the wards of the hospital.

Votes of Thanks.—Votes of thanks were passed to the lecturer for his interesting paper, to Dr. Soltau Fenwick for his kind help, and to the hospital authorities for their hospitality.

MIDLAND BRANCH: LINCOLNSHIRE DIVISION.

A FAIRLY-ATTENDED and interesting meeting was held at the Johnson Hospital, Spalding, on March 9th, Dr. W. A. CARLINE, President, in the chair.

Communications.—The following communications were read and discussed: Dr. G. M. LOWE: Fæcal Accumulations simulating Disease. Cases were detailed simulating malignant disease, etc.—Mr. W. J. CANT: An Operation for Ptosis by Permanent Subcutaneous Wire Loop.—Dr. R. A. FARRAR: Labourers' Boots: their Pathological Effects. Their rigidity and hardening in course of wear were insisted on.—Mr. E. C. KINGDON: Some Clinical Features of Acute Glaucoma.—Mr. G. LACY BARRITT: (1) Brain Injury by a Ramrod passing through the Skull. The patient and ramrod were exhibited. (2) Acute Suppurating Appendicitis: Abdominal Section: Recovery.

JAMAICA BRANCH.

1897.

THE report of the proceedings of the Jamaica Branch, 1897, forms a closely-printed pamphlet of 32 pages, the contents of which afford abundant evidence of the vigorous vitality of the Branch. It is stated that during 1896 six general meetings were held, and the membership at the beginning of the year was 61. The office-bearers for 1897 were as follows: *President*: Dr. G. F. Da Costa. *President-elect*: Dr. E. E. Bronstorph. *Hon. Secretary and Treasurer:* Dr. G. V. Lockett. *Council*: Drs. G. C. Henderson, H. Strachan, H. E. Mansell, F. H. Saunders, J. W. Plaxton, A. R. Saunders, G. Cooke.

Medical Defence.—At a meeting on March 3rd, 1897, the subject of Medical Defence in relation to the British Medical Association was discussed, and the Secretary was directed to issue a circular inviting answers to questions relative to the scheme of the Council. At a further meeting on March 11th the answers were read. In reply to one question: Are you in favour, or not, of the Association undertaking the duties of individual and collective medical defence? there were 14 written answers in the affirmative, and 5 written answers in the negative. Of the 14 in favour of the Association undertaking the duties of medical defence, 5 were in favour of the scheme as drafted by the Special Committee appointed by the British Medical Association, with Paragraph 3 erased and Paragraph 2 altered, substituting the words "and shall include all members," for the words "and limited to those resident in Great Britain"; 6 in favour of scheme of Special Committee, 3 in favour of scheme of Council.—Dr. MANSELL proposed, and Dr. THOMSON seconded:

> That this Branch is of opinion that the British Medical Association should not undertake the duties of medical defence.

—Dr. LOCKETT proposed, and Dr. MOORE seconded, an amendment:

> That the Jamaica Branch of the British Medical Association—by a majority of 14 to 3, of which majority 8 are in favour of Scheme A of Council, or a modified form of the same—is in favour of the British Medical Association undertaking the duty of medical defence.

The amendment was put and lost, and the original resolution carried.—Drs. LOCKETT and MOORE protested against the action of the members who voted for a resolution which ran counter to the majority of written opinions forwarded by the members.

Scientific Work.—The scientific work done by the Branch was considerable in quantity, and of a high order in respect of quality. Among communications of special interest were the following:—Dr. G. V. LOCKETT: (1) Notes on a Case of Right Carotid Aneurysm following a Spontaneously Cured Left Carotid Aneurysm; (2) a Case of Volvulus of the Sigmoid occurring a second time in the same Patient: Operation: Recovery; (3) Remarks on a Disease in which there is a Symmetrical Trophic Lesion of the Skin of the Hands and Forearms, some Profound Change in the Mucosa of the Alimentary Canal, and Marked Cachexia.—Dr. E. E. BRONSTORPH: A Paper on Permanent Drainage in Multiple Urinary Fistulæ.—Dr. H. B. KNOX: A Report of a Case of Aortic Valvular Disease, with Loud Musical Murmur.—Dr. H. STRACHAN: A Case of Large Multilocular Cystic Ovarian Tumour, successfully Removed.—Dr. C. A. H. THOMSON: A Case of Perforating Wound of the Sclerotic caused by a Stick, with Complete Recovery of Vision.—Dr. J. A. ALLWOOD: Case of Aphasia and Facial Paralysis.

1898.

A complete report of the proceedings in 1898 has not yet reached us. The following notes refer to two meetings held in the early part of the year:

At a meeting on February 9th, 1898, the following were elected office-bearers: *President:* Dr. E. E. Bronstorph. *President-Elect:* Dr. J. F. Donovan. *Honorary Secretary and Treasurer:* Dr. G. V. Lockett. *Members of Council:* Drs. Da Costa, Maunsell, Plaxton, Clare, Henderson, F. H. Saunders, and A. R. Saunders.—The SECRETARY read a short report for the year.—The membership was stated to number 63.

Scientific Work.—Dr. G. V. LOCKETT read Notes on Two Cases Fatal after Laparotomy from Intestinal Toxæmia (?), and showed a Case of Physiological Looping of the Retinal Arteries.—At a meeting on April 27th Dr. H. CASTLE read Notes on a Case of Wound of Structures in the Carotid Sheath; and the PRESIDENT communicated Notes on a Case of Encysted Hydrocele of the Round Ligament, on which he had operated successfully.

BRITISH GUIANA BRANCH.

THE first quarterly meeting of this Branch was held at the Public Hospital, Georgetown, on January 26th, Dr. F. H. EDMONDS, President, in the chair, and fifteen members were present.

Alterations in By-law.—Dr. W. BARNES's motion in *re* alterations in By-laws 4 and 7 were carried unanimously.

Medical Ordinance of Trinidad.—The recently-passed Medical Ordinance of Trinidad was discussed, and a committee was appointed composed of the President, Drs. Gomes, Barnes, and De Freitas, to consider and report at the next meeting, or sooner, if necessary, how far it could with advantage be applied to this colony, and, if considered advisable, to approach the Government on the subject.

Statement of Accounts.—The statement of accounts, duly audited, was laid on the table.

President's Address.—The PRESIDENT delivered an address on Malaria and Pregnancy, which will be published. In the discussion which followed most of the members present took part, and the general opinion was in concurrence with that of the President, that it was better to give quinine and run the risk of producing abortion in serious cases of malarial fever in pregnant women than risk the serious consequences of withholding it.—Dr. ANDERSON proposed a vote of thanks to the President for his address, and which, on being seconded by Dr. HONIBALL, was carried by acclamation.

Specimens.—Specimens of the Filaria Ozzardi, sent by Dr. OZANNE, and a Blood Cast of the Uterus after severe Hæmorrhage, by Dr. GODFREY, were exhibited.

HONG KONG AND CHINA BRANCH.

A MEETING of this Branch was held at the Naval Yard (by kind permission of Rear-Admiral Holland, A.D.C.) on January 24th, Dr. J. C. THOMSON (President) in the chair; the following were also present: Dr. J. M. Atkinson, Surgeon Browne, R.N., Captain Bewlay, R.A.M.C., Surgeon Bradnell, R.N., Surgeon L. Dartnell, R.N., Colonel Evatt, R.A.M.C., Dr. Gibson, Dr. Harston, Staff-Surgeon Home, R.N., Dr.

Hogar, Fleet-Surgeon Johnston, R.N., Surgeon Pickthorn, R.N., Fleet-Surgeon Sibbald, R.N., Dr. Stedman, Dr. Ewan, Major Whitty, R.A.M.C., Dr. Chan, and Dr. Francis Clark, Hon. Secretary.

New Members.—Fleet-Surgeon Sibbald, Surgeon Reed, Surgeon Dartnell, and Surgeon Levinge were elected members of the Branch.

Communications.—Dr. J. M. Atkinson showed two recent specimens of Loeffler's Diphtheria Bacillus.—Dr. Stedman showed a case, with recent specimens, of Filaria Sanguinis Hominis.—Staff-Surgeon Home showed a case of Fracture of the Patella, with instruments.—Surgeon Bradnell showed a case of Fibrous Growths in connection with the Ligamentum Patellæ.—Major Whitty showed a recent specimen of Gumma of the Inner Table of the Skull.

Injury to the Knee-joint.—A paper was read by Dr. Stedman on Three Cases of Injury to the Knee-joint requiring operation, and the cases shown. The first was one of rupture of the ligamentum patellæ, ligament sutured, result good; the second was one of removal of a loose fragment of the anterior semilunar cartilage, result good; the third was one of suppuration of the knee-joint (contracted in Macao subsequent to operation there), treated by antiseptic irrigation and drainage, with the result that the limb was saved.

Vote of Thanks.—After some discussion, the meeting closed with a vote of thanks to Dr. Stedman for his paper.

SPECIAL CORRESPONDENCE.

BERLIN.

The Congress of Balneology.—Sick Nursing.

At the Congress of Balneologists which met in Berlin on March 2nd, ending on the 6th, the most noticeable address was decidedly that of its president, Professor O. Liebreich, on the Resisting Power of the Organism to Micro-organisms. Liebreich developed the idea that all therapeutic methods, however seemingly divergent, are at one in their final object, which is, to act on the cell. No one method excludes other methods, and no thoughtful physician will make use of one exclusively, but will take up this or that course of treatment judged as specially opportune, or suited to the peculiarities of the case. Dr. Brock read the yearly report, and congratulated the members on the first steps to success attained by their repeated petition for sanitary improvements in German watering places and health resorts. Prince Hohenlohe, the Imperial Chancellor, had earnestly recommended the petition to the attention of the German Federal Governments. And in Prussia something had already been done. A ministerial rescript had been sent to the provincial governors, directing them to appoint local Boards of Health (on each of which at least one medical man of the place is to sit), with power to superintend not only the public hygienic arrangements, but also the sanitary conditions of lodginghouses, hotels, etc. Now, said Dr. Brock, is the time for the doctors to put their shoulders to the wheel, to use all their energy toward getting these capital proposals put into working order and carried out efficiently.

Sick nursing as an art—as a home art—is not so generally understood and practised in Germany as in England. Perhaps this is partly due to the abundance of private clinics in all German large towns, to which patients, even of the better classes, remove when they are to undergo an operation or some special treatment, and where of course they are attended, not by the members of their families, but by professional nurses. Of late, however, since all things pertaining to hygiene have been more widely understood, sick nursing and the appliances and conveniences which alleviate suffering, have come in for their share of attention in Germany too; and so, not only the medical world, but the general public also, is looking forward with great interest to the exhibition of objects connected with sick nursing, which is to be opened in Berlin during the time of the Tuberculosis Congress, and will remain on view till June 18th. Among the Committee members are Professors von Leyden, Bernard, Fraenkel, Lassar, General Army Surgeon Schjerning, Staff-Surgeon Pannwitz, and Dr. Martin Mendelsohn, while Cultus-Minister Bosse figures as honorary president. Several of these gentlemen have been chosen to form a "special jury," to whom all the objects to be exhibited must be submitted, and who will decide on their admissibility.

ROME.

Homœopathic Pharmacies.

The Italian Superior Council of Health, at the meeting held during the last week of January, had two questions to decide in reference to homœopathic pharmacies in Italy. The questions arose in reference to a request made by a pharmacist who wished to open a homœopathic pharmacy in Milan. They are as follows: Must homœopathic pharmacies be considered as ordinary pharmacies, and are they subject to the regulations made by the sanitary law for pharmaceutical practice? Assuming that homœopathic pharmacies are subject to this law, in what way will it be necessary to provide for those already existing which do not conform to the sanitary law?

In reference to the first question the Superior Council declared that the homœopathic pharmacies must be completely assimilated to the ordinary pharmacies, inasmuch as the law does not make any distinction between them. Consequently homœopathic pharmacies are obliged to keep all the drugs prescribed in the *Pharmacopœia* approved by the Government. That they in addition to these medicines keep drugs of a homœopathic nature does not matter. What matters is that these pharmacies must serve as effectually as possible as ordinary pharmacies capable of dispensing the prescriptions of orthodox practitioners.

As to the second question the Council considered that to compel the present homœopathic pharmacies immediately to furnish all the drugs prescribed by the *Pharmacopœia* would seriously disturb the ordinary pharmaceutical practice, being exposed to a new and unexpected competition, which would be very grave considering the number of homœopathic pharmacies that exist in some parts of Italy. For these pharmacies, therefore, the Council considered it opportune to recognise a state of acquired right, by which they will be permitted to continue to exercise as at present, that is, for sale and dispensing of homœopathic drugs only.

CHICAGO.

The Death of Dr. J. B. Hamilton.—The Drainage Canal.—The Influenza Epidemic.—Hospital Appointments and Politics.

Dr. John B. Hamilton, whose death on December 24th, 1898, has already been announced in the British Medical Journal, was active in the editorship of the *Journal of the American Medical Association.* He was also Professor of the Principles of Surgery at Rush Medical College, and there is no little speculation as to who will be selected to carry on this work and occupy the vacant chair. It no doubt will be less difficult to find another superintendent of the State insane asylum at Elgin—which position was also held by Dr. Hamilton at the time of his death—for this is a purely political appointment.

It is now announced, with an assurance of certainty, that the great drainage canal, which is designed to carry away completely all the sewage of the city, will be ready in October, 1899. The work will have occupied about six years of time in the building, and will represent one of the greatest undertakings of modern times.

A return of the influenza epidemic has been affecting the population of Chicago. The incidence of the disease, which began shortly before the holidays, does not appear to be severe, as the mortality rate has thus far been chargeable with no particular increase due to this cause. The disease, however, is generally prevalent, though of mild character.

For many years there has been a competitive examination each spring for the eight internship positions at the Cook County Hospital. A stir, therefore, was recently created when it was announced that the County Board was about to change the method of examination, placing these positions in the classified Civil Service list. In this event the examinations would be under the charge of politicians, and would be open to the customary jobbery and bribe influence. Furthermore the hospital staff (attending) now having charge of the examinations makes them confident of the successful contestants, for they know they have as assistants the best posted men graduating from the various schools each year. Then, again, the abrogation of the present system, for political reasons only, was taken as a reflection upon, and a fling at, the attending staff. A very caustic war of words was precipitated as soon as the proposed change was announced, which finally resulted in a temporary backdown by the County Board. These intern positions are greatly sought after by advanced students. The institution is large, and its teaching facilities are probably unsurpassed in this country. The present method of distributing the prized positions—by a very strict and thoroughly impartial competitive examination open to all advanced students of Chicago medical schools—is, and has been, in every way satisfactory to the profession.

PHILADELPHIA.

The New Water Supply.—The University of Pennsylvania's new Laboratory.—Resignations.

THE matter of an adequate supply of pure water to the city of Philadelphia has at last come fairly and squarely before the people, and the chances are that it may be the question on which will turn the election of the next mayor. Two attempts in as many years to sell water franchises to private Corporations have met the fate they deserved, and now a third Corporation comes forward with a proposition in solution of this vexed problem. The endemic appearance of typhoid during the last two seasons has roused the people to the dangers of the further use of Schuylkill water, which, because of the tremendous growth in the last decade of the cities along its course, has now not sufficient volume to purify itself. Director Thompson, of the Department of Public Works, in his report to the Common Council, favours municipal ownership and control of the water supply, pumping machinery, and filtration plant. He recommends the use of Delaware river water, suggests filtering of the entire supply, and urges regularly increasing the facilities to meet the demands of the city's constant growth in population. The recent report of Chief Trautwine of the Water Bureau exhausts every phase of the question. He estimates that the cost of installation of mechanical filters for water used during 1,900 would be 4,605,000 dollars, and for water used and wasted about 12,509,000 dollars. This includes filtration plants, real estate, meters, and immediate requirements for extension and improvements. His final recommendation is that "300,000 dollars be appropriated for the restriction of waste, and the construction of a filtration plant for the Roxboro' district, further expenditures in this direction to be deferred until the Roxboro' plant is constructed and in operation." This is a sensible suggestion, and removes all danger of wasting a large sum of money on an uncertain experiment. Two years ago Philadelphia abandoned municipal control of its gas works much to the discomfort of the people, who will not soon get the taste of this experience out of their mouths.

Three hundred thousand dollars is now being raised by subscription from the Alumni of the University of Pennsylvania for the erection of a new pharmacologic, physiologic, and pathologic laboratory. A direct appeal has been made to the 6,000 alumni, and it is said that all of the projected sum is now in sight.

Two resignations of interest have recently been recorded. The first was that of Professor John Guiteras of the University, well known for his work in pathology. The severance of his connection with the University is due to the doctor's desire to return to Cuba, his native country. The other resignation was that of Dr. Geo. E. de Schweinitz, long time Professor of Diseases of the Eye in the Philadelphia Polyclinic and College for Graduates in Medicine. In recognition of his distinguished services to the institution, the trustees conferred on him the Emeritus professorship.

MELBOURNE.

Mesmeric Performances.—Mode of Election to Hospital Staffs.—The Finances of the Melbourne Hospital.—Plucking at the University.—The late Dr. Burke.

AT the commencement of this year a so-called professor of mesmerism gave a series of exhibitions in Melbourne of his powers in the form of public entertainments. On the strength of his wonderful gifts he travelled all over Australia. Crowds of people paid for admission to see him exercise his hypnotic powers, and *séances* were held, to which medical men were invited, to test the credibility of his asserted powers. Revelations have recently been made public, which go to show that the subtle influence which the professor was supposed to exercise was in no way necessary for the purpose of conducting his experiments. Three men have come forward who declare that they had been paid subjects of the professor for years, and that never at any period had they been in the least affected by his mesmerism. As a proof of their statements they offered to undergo all the tests applied to them on the stage without any hypnotism whatever. One of these men is a person who was believed to have been in a trance for six days at a time, and the subjects all declare that they had simply made up their minds to deceive the doctors and the public, to stand whatever tests might be applied to them. Accordingly, at the office of an evening paper, and in the presence of Dr. Neild, Lecturer in Forensic Medicine at the Melbourne University; Dr. Rennie, Demonstrator of Anatomy at the Melbourne Hospital; Dr. Molloy, Medical Superintendent of the Melbourne Hospital, and other members of the medical profession, the three late subjects of the professor of mesmerism endeavoured to prove the truth of their statements. The first test consisted in one of the men stretching himself on the floor and imparting rigidity to his limbs and body. Two chairs were then placed at a distance apart, and the man was lifted from the floor and the nape of his neck placed on the back of one chair and the heels on the back of the other. His body remained perfectly rigid and straight. One of those present then sat astride of the man, and this weight was supported for a few seconds without any apparent change in the rigidity of the body. In experiment No. 2, a needle threaded with a stout thread was thrust completely through the lobe of an ear of another subject, and the thread drawn backwards and forwards. The needle was then passed through the cheeks, and subsequently stuck deeply into the thigh. No symptom of pain was noticeable. The third man swallowed the following mixture: A heaped-up teaspoonful of salt, a similar quantity of mustard, as much cayenne pepper as could be lifted on to the upper part of the handle of a teaspoon twice; to this was added kerosene, vinegar, neatsfoot oil, and cod-liver oil in equal quantities to fill a large ale tumbler, and the whole stirred up together. After taking this mess the man resumed his conversation as if he enjoyed the drink.

The method of electing the staffs of the "Melbourne" and "Women's" Hospitals was recently discussed at a public meeting convened by the Executive Committee of the Charity Organisation Society. The object of the meeting was to consider what steps should be taken to introduce some reform in the method of election. The chairman stated that the present method was held by all to be scandalous. Doctors were compelled to canvass, and methods were adopted which were not strictly legitimate. He was not satisfied that the best men were always selected. He did not think that if the privilege of the subscribers were curtailed the subscriptions would fall off. He favoured the establishment of a public body, consisting of four men appointed by the Governor in Council, four by the medical profession of the Colony, two by the Melbourne University, and five by the Committee of the Melbourne Hospital, to elect the medical officers. The meeting was but sparsely attended, and the motion embodying the chairman's proposal was carried. Another motion, proposing that only subscribers of three years' standing, should be entitled to vote, was also carried. The object of this last resolution was to stop roll stuffing. A further suggestion that the tenure of office should be for seven years instead of four was also entertained. At this meeting Mr. Webb, who for many years had been honorary surgeon to the Melbourne Hospital, said "that at one election one candidate put a whole girls' school—little bits of things with short petticoats—on the roll, and they voted. And Chinamen! One candidate went to Adelaide, and got 130 proxies from the employees in his brother-in-law's factory. The system bred bitter hatred and hostility among the staff. The surgical staff now hardly spoke to one another. The scandal and disgrace of the system had been scathingly commented on in Canada." It does not seem likely that in the near future the proposals for reform will be taken up seriously. For years the present system has been endured, and every four years the same outcry is heard, and nothing practical is arrived at. To obtain the co-operation of the present holders of office in any scheme of reform a demand is made of fixity of tenure for themselves. It is not unlikely that a radical change in the present method of election would cause a serious falling off of revenue to the institution concerned, and that until a charity tax is imposed on all, and the charitable institutions of the colony are removed from the fluctuations of a variable public subsidy, the administration of the two hospitals will hesitate in risking their present revenue.

The Melbourne Hospital finances are languishing, and there exists an alarming gap between income and outlay. The deficit amounts to £5,000 a year. The hospital has 292 beds, and during the year 4,918 patients pass through these beds. The out-patients number 17,750 for the same period. In 1896 the receipts amounted to £25,700, in 1897 they fell off to £19,930, in the present year it rose to £20,645. The expenditure during the same periods has been steadily increasing, being, namely, £22,511, £24,402, and £25,953 respectively. The daily average of patients has risen from 271 in 1896 to 295 in the present year. Of this year's receipts the Government gives a subsidy of £1,200, while the municipalities of the colony only contribute £324. The private subscriptions amount to £3,600, while the inmates themselves now subscribe £229. The registration fees (1s.) amount to £1,031. Of the expenditure the wages are £5,912, drugs and accessories amount to £3,024, bandages £1,830, bread £549, eggs £523, meat £1,417, milk £960, printing £230, wines and spirits £437, plumbing and repairs £710, gas £841, cab and tram fares £39. The inside staff consists of 16 sisters, 30 nurses, 25 probationers, and 12 night nurses, with 15 ward maids to assist. During the last twelve months 58 of the nursing staff have become patients themselves, and of these 32 were compelled to take to their beds for more than a fortnight. Several spent from four to six months in bed. The students who attend the hospital number 51, and contribute £267 in entrance fees and pay nothing more. But it is now proposed that they pay an annual fee of £5 5s. It has been suggested that no dressings be destroyed until specially ordered, and imposition is to be more carefully guarded against. Special orders for diets are to be made, and statutory declarations are to be made by all intending patients with regard to their financial positions. During last year over 1,000 operations were performed, and a heavy outbreak of diphtheria and measles was a severe call on the finances of the hospital. Altogether the expenditure is to be checked in every direction, and large economies are promised.

There have been so many medical students plucked in their fifth year at the University examinations—namely, 22 out of 30—that an attempt has been made by some of the examiners to explain the cause. We are told that the subjects responsible for the largest number of rejections are medicine and surgery. A member of the Council of the University declared that our students were "under-taught and over-examined." The explanation of the failures, as given by Dr. Williams, is that they are due to the abolition of certain interim examinations. Formerly there was an examination in the third year in surgery and the fourth year in medicine in those portions of the subjects which the lecturers had then gone through. The discontinuance of this arrangement has led to a laxity in the work of students. Many students attending lectures take notes, but as there is no examination they do no reading. The result is that they come into the wards unequipped with the necessary knowledge for clinical study. The recent examination was not above the average for the same year's work at English universities.

Dr. S. J. Burke, who was for many years honorary surgeon to the women's hospital, and was probably the best known and one of the most popular physicians in Melbourne, has just died. Dr. Burke arrived in the colony in 1854; previously he had seen active service in the Crimea. In 1870 he settled in North Melbourne, where his private acts of charity and his exceptional skill in his profession made his name a household word.

SHEFFIELD.

The Prevention of Tuberculosis.—Improvements and Extensions of the Hospitals.—Death of Mr. Henry J. Knight.

A COMMITTEE of the Medico-Chirurgical Society was recently formed to consider the tuberculosis question, and as a result a conference was held between this Committee and representatives of various other bodies, including representatives of the Health Committee, the Royal Infirmary Royal Hospital, the Women's and the Children's Hospitals, the two Boards of Guardians, etc. After discussion it was resolved that it was expedient to form a local branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis. A requisition was signed asking the Lord Mayor to call a public meeting, and when this was presented on March 10th the Lord Mayor acceded to the request. The meeting will, it is expected, be held early in May, and it is hoped that one or more of those prominently engaged in the cause may be induced to visit Sheffield and put the objects of the Association before its citizens.

In recent times there has been great activity in hospital extensions in Sheffield. The Royal Infirmary asked for funds to commemorate its centenary in 1897 for the erection of an ophthalmic block, a nurses' house, and a laundry. The money was forthcoming, and all the buildings were completed, and were occupied last year. The additions raise the total number of beds available to more than 240. The ophthalmic block is reserved entirely for eye cases, contains 38 beds, and consists of two wards (male and female), and two wards for isolation and special cases. The operating theatre, supplied with every modern appliance and architecturally up to date, is a marked feature of the block. More recently, funds have been solicited for the building of a surgical operating theatre, and the extension of the out-patient's department. The Royal Hospital still requires funds to complete its new buildings commenced some years ago, but progresss is being made. It is very recently also that extensions were made at the Children's Hospital, and now the Jessop Hospital for Women has appealed for £20,000 to make extensions and alterations in the buildings. There is good hope of the money, moreover, being raised, for, with the assistance of Dr. Keeling, the Senior Surgeon, who has himself contributed £1,000 to the fund, subscribers have come forward in a manner which must be most satisfactory to the authorities of the hospital. To add to the list of hospital extensions it should be mentioned that at both the Union infirmaries enlargements have been going on. At the Ecclesall Union a new maternity department has been built, and additions are in progress at the Fir Vale Union Infirmary.

The medical profession has received a severe shock by the sudden and unexpected death of Mr. Henry J. Knight. He was the leading practitioner of Rotherham, and was widely and very deservedly respected.

BRISTOL.

The Endowment of Chairs in University College.—Hospital Sunday Fund.—The Convalescent Home.—The General Hospital.—The Royal Hospital for Sick Children.

CIRCULARS have been issued in the city inviting thos interested in education to a meeting to be held at University College, at which it will be suggested that a society should be formed to collect money to endow Chairs, or to assist the Sustentation Fund of the College. The proposal is that the society should be formed on the lines of the well-known Colston Societies, the funds of which, amounting yearly to about £3,000, are given wholly in annuities and doles. Edward Colston, whose memory these societies perpetuate, gave largely to education; in fact, the figures on the third page of the circular show he gave three times as much for that cause as to all other objects together. It is claimed by those who send out the circular that had Colston lived in the present day, when elementary education is sufficiently cared for by the State, his sympathies would have been with the higher education of the people—such education as is supplied by University College. It is a notorious fact that the fees received from students at the College are only sufficient to about half pay the salaries of the staff, and that the subscriptions to the Sustentation Fund permit the Government to grant only £1,200 yearly. With such a state of affairs it certainly seems to be desirable that some effort should be made on behalf of the College, which, though it may be admirably equipped and staffed, is unable to expand owing to lack of funds. From one society—the Anchor—a donation has already been received for the College, and it is hoped that the other two—the Dolphin and Grateful—will also hand over a donation in the future from their funds, for many persons, though generously inclined, are beginning to think that the quantity of annuities and doles has reached a limit at which it might stop. University College was started after a meeting of the British Association in 1876, and it would be a fitting memorial of the very successful meeting of last year if this effort, which it is hoped will infuse new vigour into the College, were carried to a happy conclusion. The circular is signed by the Mayor, High Sheriff, the Bishop of Hereford (President of University College), Mr. Albert Fry (Chairman of University College), and the Headmaster of Clifton College.

The Committee of the Hospital Sunday Fund have issued their list of donations received, and on the whole the collection has been a decided improvement on last year. There are still a few more donations to come in, as many of the vicars of country churches in the district round preferred to hold the collection on the Sunday of their Harvest Festival. The total received was £1,491 14s. 9½d., an increase of £373 11s. 4½d. on last year. The total would have been higher had all the churches who promised their help paid their collection into the Fund; some, while using the circulars and posters, sent direct to the institutions they most favoured. This it is hoped will not happen in future years.

There is talk of a member of the Royal family coming to open the Convalescent Home when it is opened in June.

The half-yearly Board meeting of the General Hospital was held on March 13th, and the report stated that the receipts from all sources were £158 less than last year and £1,200 less than the expenditure, which was £10,658. The average number of beds occupied during the year was 166.8. Over £6,000 had been received from legacies, but two donations of large sums recently acknowledged in the local papers do not come in the 1898 accounts. Several important structural improvements had been made, and about £2,000 spent on the laundry.

The annual meeting of subscribers to the Royal Hospital for Sick Children and Women was held on March 10th, the Mayor (Mr. Herbert Ashman) presiding. The meeting was of the usual description. From the statement of accounts it appears that the institution is following the example of the majority of hospitals, and getting yearly more in debt, the total indebtedness now being £2,771 6s. 5d., and increase of £1,043 3s. 8d. on the year.

CORRESPONDENCE.

PLAGUE PRECAUTIONS AT BOMBAY.

SIR,—Having lately experienced the annoyance of the inspection of passengers as carried on by the Government after leaving Bombay, perhaps you will allow me to detail them and at the same time contrast the utter want of real protection afforded by the inspection of the Lascar crews of the P. and O. and other steamship lines.

I landed in December, and proceeded up to the North-west Provinces within forty-eight hours. No inspection was made at the station, but after we had been an hour or so in the train (we left at 9 P.M.) and had settled down for the night, I was woke by a cold clammy hand thrust in through the carriage window, with a request to allow my pulse to be felt. Four ladies in the same carriage, but in another compartment, had to submit to the same examination. We were waked up no fewer than four times during the night to undergo a similar farcical examination, and again next day were examined on the railway platform at Itarsi. I need hardly point out the absolute childishness of such a system which is still going on.

Now, *per contra*, let me state what precautions are taken to ship healthy crews in the P. and O., etc. Many of the Lascars are "signed on" the very day before sailing, and notwithstanding all the efforts of the health officers, they bring on board a quantity of soiled clothes which it is impossible to disinfect. In fact, many of the crew are taken on the very day the ships sail, and it was among some of these very men that the cases of plague appeared in the *Caledonia*. If this is not straining at a gnat and swallowing a camel, I don't know what you can call it.

I consider that arrangements should be made to have all crews complete on board for at least three days before sailing, and that all their kits should be disinfected before being allowed on board. After this no connection with the shore should be allowed.

The present system seems to me to be an absurd one, as no medical officer could possibly detect the latent germs of plague among apparently healthy men, who, perhaps, the night before embarkation slept in plague-infected houses in Bombay.—I am, etc.,

J. B. HAMILTON,
Surgeon-General, R.P.

Bombay, Feb. 14th.

LUNACY LAWS AND BORDERLAND CASES.

SIR,—With reference to Dr. Reichardt's letter of February 14th, I should like to offer a few words of protest against the intemperate use he makes of the phrase "incarceration in a lunatic asylum," a particularly odious expression, which seems to please him so much that he repeats it no less than six times, with additional remarks about "odium," "horror," and the like.

Into the subject matter of his letter I will not enter, but whatever may be the rights or wrongs of the borderland question I beg most emphatically to say that no possible good can be served by the use of words like these, which are calculated only to increase the foolish prejudice that still exists against asylums and the men who devote their lives to the care of them.

It is not fair or right that medical men, of all people, should for their own ends attempt to foster this. Trusting that you will spare me space for this remonstrance, I am, etc.,

Chiswick, March 4th. T. SEYMOUR TUKE, M.A., M.B.Oxon.

SIR,—In your report of the interview between the conjoint deputation of the British Medical and Medico-Psychological Associations and the Lord Chancellor, the spokesmen do not appear to make it quite clear what alternative they suggest for the existing judicial authority in cases of early and curable mental disease.

I do not suppose that it is intended to take away the liberty of the subject, even for a period of six months, except with the sanction and approval of some properly constituted independent authority; and what I should like to know is, where are we to look for a more convenient, unbiassed, and get-at-able authority than the present, or a more unobtrusive, simple, and private proceeding than the certification now in force?

Considering the late ebullition of feeling against confining a patient for even seven days on an urgency order, is it likely that the public will permit the liberty of a patient to be taken away on the *ipse dixit* of the physician, the relatives, or even of the patient himself?

Again, we must remember that in order to make the early treatment of incipient insanity of any service whatever, the control of the person of the patient must be as complete as it is under the present reception order: and who is there who advocates the lessening of the safeguards against this control being improperly used?

If these are the social and commercial disabilities connected with certification which Dr. Savage described, the deputation might have suggested something for their removal.

With an attack on certification *per se* I have little sympathy, because, after observing its workings intimately for nearly ten years, I am satisfied that the charges brought against it are visionary or highly coloured; but any honest attempt to make better provision for the treatment and cure of slight and temporary mental attacks outside an asylum would have my fullest sympathy, because I recognise that whatever stigma is attached to mental breakdown—and it is a cruel hardship that there should be any—is due not to certification but to residence in an asylum.

Why should not the Commissioners in Lunacy keep a register of medical men who could receive into their houses for treatment incipient cases of insanity? I say a register should be kept, because it does not follow, if a man possesses medical diplomas, that he is always a fit person to undertake the treatment of mental disease.

I notice that the eminent specialists who spoke for the deputation made use of the gentle term "incarceration," which, according to the dictionary, is synonymous with "imprisonment." I should be curious to know whether these gentlemen, when they were connected with institutions for the insane, took the same hostile view of certification, and whether they were in the habit of describing their patients as being "incarcerated."

It seems to me that so much ability and energy might have been better spent in allaying the prejudices against certification, which after all are very fanciful; for the obnoxious process has received more publicity and notoriety through the present agitation for its modification than its natural workings have given it during the many years in which it has been resorted to.—I am, etc.,

Sunbury-on-Thames, March 14th. W. J. Handfield Haslett.

POISONING BY RHUS TOXICODENDRON.

Sir,—The case of poisoning by rhus toxicodendron, related by Dr. F. Nicholson in the British Medical Journal of March 4th, is of the greatest interest, as it would seem these cases, as far as I have been able to discover, are of great rarity in this country. This perhaps is strange considering that the plant, a most lovely creeper, is not so very uncommon amongst us. It is one of the hardy sumachs coming from North America, and is well known there to gardeners. It came into use here some years ago, and as it grows very rapidly, was much used for wall spaces on large houses and for garden walls needing covering by creepers. It was a usual plant in gardeners' catalogues, but of late, owing to its troublesome qualities, is more rarely sold.

In America most serious and alarming cases of poisoning have arisen, and even cases of death have been recorded from the handling or pruning of the plants, besides lengthened illness and serious after-injury to health.

Some years ago I had some eight or ten plants, which were a most lovely sight when in leaf in the spring and summer, owing to their brilliantly delicate green tint and glossy leaves of a beautiful shape, and the mixture of all shades of gold, pale green, and brilliant reds in the autumn, for which reason they are a most desirable acquisition as a creeper. These plants were chiefly on the wall of a large garden much used by gentlemen patients. They were sent to me either by mistake for an order for ampelopsis Veitchii, or else purposely to get rid of them. I did not for some time find out their poisonous history until I learnt of it from Lord Ducie, a great gardener, and one who takes interest in all trees, shrubs, etc., and from Canon Elacombe, another well-known gardener, who had been advising everyone to discard them.

During the time the plants were in existence their leaves had been constantly plucked for use in flower vases, and also for lining the fruit dishes for the table! No ill-effect, however, had been produced upon the hands or face—the places commonly attacked—of those handling them, the chief of these being a young lady; nor did those eating the fruits lying on them suffer in any way!

As soon, however, as I learned the dangerous character of the plants they were removed. I fancy our freedom from injury was due either to the fact of the leaves being plucked chiefly when fading in the autumn, when the sap was losing its power; or perhaps to the plants being young and not fully developed, and probably not having flowered, as I never remember seeing flowers on them. I thought at the time that this climate might lessen or tend to slacken the development of the poisonous qualities; but as the plant in Lincolnshire has developed them, this can hardly be the case. I fancy the injury arose in Dr. Nicholson's case owing to the plant being in flower or fruit at the time of its use, and when no doubt the poisonous qualities are more fully developed. A great deal has been written about this Rhus and its properties from time to time in the gardening papers.—I am, etc.,

Reginald Eager,
Lecturer on Medical Jurisprudence in the Bristol Medical School.
March 6th.

ARMY CONVALESCENT HOMES.

Sir,—At length the War Office has decided to establish army convalescent homes at their selected stations in England and Scotland. Under the proposed scheme the convalescent soldier is to be drafted to barracks whose situation and climate appear most fitted to hasten his recovery. So far there need be no great difficulty in securing desirable localities for the ordinary run of convalescents. But what about the exceedingly large class with health shattered by syphilis? In the British Medical Journal of February 11th Lieutenant-Colonel William Alexander advocates the Aix-la-Chapelle method of mercurial inunction, together with the use of thermal waters for the radical cure of syphilitic diseases. In this connection it would be interesting to know if Bath, or some similar watering place, has been selected to meet the requirements of such cases. The subject is worthy of serious consideration if it be true, as stated, that of the troops ordered on active service in the late operations on our Indian North-West frontier, some 10 per cent. were found inefficient as a result of syphilitic disease.—I am, etc.,

Wm. Stewart,
Stirling, Feb. 25th. Surgeon-General (Retired).

IMPROVEMENT IN *X*-RAY TECHNIQUE.

Sir,—In the British Medical Journal of March 4th, attention is very properly called to the extremely important improvement in interrupters, for which we are indebted to Dr. Wehnelt, of Charlottenburg. In your note you say that the difficulty will be to get tubes to stand the current, and already the cathodes of several tubes have been melted. Will you allow me to point out that this impression, which is very common meantime, is quite erroneous? I have been making a series of experiments lately with the new interrupter, and, briefly stated, the instrument promises to be more capable of gradation than any previous arrangement of apparatus. We can vary the results in tubes by altering the voltage to the primary by difference in the proportions in the size of the two electrodes, by the fluid in which the metals are immersed, by the distance between the two metals in the cell, etc. Not the least important of these is the intensity of the current going to the primary, which, of course, can be very easily controlled by a rheostat.

I have tried coils of different sizes, the largest giving a 28-inch spark, and judged by the results, the principles involved in each seem to be pretty much the same. Even with the largest coil one can easily vary the conditions so that the small ordinary tubes can be used with perfect safety. In other words, this interrupter is already under our control.

With regard to the difficulty of getting tubes, I cannot see that it will be any greater than in the past. Before Dr. Wehnelt's interrupter was introduced I experienced precisely the same difficulty in getting tubes with a high enough vacuum, say, for a coil giving a 30-inch spark or a large Wimshurst machine. Up to date I have not found a tube which both would not excite. Of late I have had tubes made under my own supervision, several of which are excited with difficulty even when using an 18-inch spark Apps-Newton coil with the new interrupter.

There is another remark in the same note to which I should like to call the attention of your readers, namely, "The fluorescent screen gives such an effect as is seen when a large Wimshurst machine excites a tube, but it is more brilliant." Might I be allowed to point out that the result would depend upon the size of the Wimshurst? With my present influence machine, containing 24 plates of 36 inches diameter, I have no tube which cannot be readily excited. This new interrupter is bound to create greater interest in the question as to which is the best exciter of Crookes's tubes, and some experimenters seem to have come to the conclusion that the new interrupter will settle this; but the end is not yet. I do not wish your readers to understand that I am here taking any part in this discussion. On the contrary, when the question was discussed at the Roentgen Society last session, I could not see my way to take either side, maintaining, as I still do, that each has its advantages and disadvantages, that we might as well discuss the question whether a certain amount of work should be done by a gas, oil, or steam engine. I am still of opinion that as we get to understand more about coils and influence machines, it will be seen what one can the other will be got to do. The selection of a particular transformer, coil or static machine, will probably in the future depend upon such questions as portability, and the electoral force at the disposal of the operator—say the batteries, street mains, etc.

Lastly, the above-mentioned views do not detract in the slightest from the undoubtedly great improvement in technique, for which we are indebted to Dr. Wehnelt. On the contrary, my experiments have shown that the exposures in photographing deep-seated tissues of the body by means of the coil are greatly reduced; while the brilliancy and steadiness of the screen with this transformer surpass anything hitherto obtained in using the induction coil.—I am, etc.,

Glasgow, March 5th. J. MACINTYRE.

MEDICAL AID ASSOCIATIONS.

SIR,—In reply to a letter *re* medical aid associations, which appeared in the BRITISH MEDICAL JOURNAL of March 11th, signed by "A Member B.M.A.," might I ask if he means medical aid associations to include a doctor's private family club? If so, I quite agree with him that strong measures should be adopted to do away with these clubs. If, on the other hand, he means that only medical aid associations go in for canvassing, I think it only fair to point out that there is no more canvassing done by these associations than by canvassers of doctor's private clubs. In fact, I was in a town where I was told a medical man actually employed a coal man to supply a bag of coals to those who promised to join his club. A great many ways are no doubt employed by some medical men to get members to join their club by discreditable means such as I have mentioned above. It would be a boon to the profession if the General Medical Council possessed the power to do away with all canvassing clubs.—I am, etc.,

March 13th. A. B. C.

SIR,—"A Member B.M.A." is perfectly right when he says we are bound to take strong measures if we wish to do away with the medical aid associations. The only possible remedy that I see is for the General Medical Council to forbid entirely any medical man from working, first, for a sum of money less than that paid actually by the patient; secondly, for money collected in advance by a collector, except in the case of the recognised benefit societies—namely, Oddfellows and Foresters, etc., for men only—under pain of having his name erased from the *Medical Register*.

This would do away with the medical aid associations, the collectors for which get from 15 to 25 per cent. of what they collect, the medical men the rest. Also the still worse condition of a medical dispensary, which is run by a lay company, who pay their medical man a fixed sum, however hard he may work.

I myself am a surgeon to a very large number of medical aid patients, and I attend families, including a father, mother, and perhaps six or eight children, for 3d. a week; people over 14 years pay 1d., and under 14 years ½d., per week, and perhaps they will be three or four weeks in arrears, but I treat them all the same. Of course, people say this state of affairs is horrible, but I am powerless to help myself, as I cannot afford to throw away £150 a year, which is part of the practice I have lately purchased; and if I did what would happen? Another medical man would take it on, or else the medical aid association would advertise for a man offering him £150 a year for a start, and would easily get one, who would cut into my private practice, or else all, or nearly all, would join the dispensary here, and the company would get another man down as assistant to the first man if the first man could not do all the work.

How is this state of affairs to be altered except by the General Medical Council taking strong measures? I might also point out that medical men who take on the medical aid associations are simply tools used by the associations for insuring people. The medical aid collectors go to a house and ask the people to insure their lives by paying a penny a week, holding out as an inducement that they are allowed to pay another penny to the doctor's club, and so get their medical attendance cheap.—I am, etc.,

March 11th. MEDICAL AID SURGEON.

SIR,—Concerning the abuse carried on by agents of medical aid associations, the *modus operandi* is to approach a newly-qualified man who is "squatting," and offer to work him up a large list of members. The commission is, I am informed, £5 for every 100 members on the list. One, or at most two, men are selected, and having consented to act, their names are freely canvassed from house to house. The middle class is approached for the simple reason that the weekly payment of 5d. (2½d. for medical advice, 2½d. for life assurance) is more easily and regularly paid than would be the case among the very poor.

The evil being acknowledged, the remedy to my mind is very simple, effective, and calculated to entirely crush out of existence all such bodies as medical aid societies. Let the General Medical Council at the next sittings adopt the same course as followed with regard to unqualified aid. Let it be deemed infamous conduct to have any connection whatsoever with medical aid societies, let notice be given to terminate any standing agreements in three months, and let all general practitioners be on an equality as regards their fees. Who ever heard of a dental aid society or a veterinary aid association? The dentist and the veterinary surgeon would ridicule such a notion; how is it then that medical men can be found who are willing to accept such paltry sums?

As it seems impossible for unity to exist amongst medical men, then let our councillors decide for us that we must not disgrace their good name, and take good care that we follow their wise dictates.—I am, etc.,

March 14th. ONE WHO KNOWS.

VANISHING TUMOURS.

SIR,—In the report of my observations in the discussion at the Harveian Society on Mr. D'Arcy Power's paper, published in the BRITISH MEDICAL JOURNAL of March 11th, p. 600, I am represented as declaring that "the majority of cases of vanishing tumours in the abdominal wall were simply cases of tuberculous peritonitis." I need hardly say that "wall" is a mistake for "cavity."—I am, etc.,

Granville Place, W., March 11th. ALBAN DORAN.

THE GENERAL MEDICAL COUNCIL AND THE SOCIETY OF APOTHECARIES.

SIR,—The writer in the BRITISH MEDICAL JOURNAL of February 25th, who with smug satisfaction appropriates as all his own the well-worn motto "Honesty is the Best Policy," would have been well advised to leave his letter unwritten. The title "Physician and Surgeon" deceives nobody, but simply states that the practitioner is qualified to treat medical as well as surgical cases. It certainly does not attract the educated classes, who are well aware that consulting physicians do not in these days practise also as surgeons, or *vice versâ;* and for my part I do not believe it does those who sport it one atom of good; they are, in fact, too honest or too clever by half; the one title without the other would serve their purpose better.

"Honesty" insinuates that the L.S.A. is the lowest English qualification. I think this is news to a great many of us. In the *Medical Register* the Society of Apothecaries is the third on the list of bodies represented at the General Medical Council, and no less a personage than Mr. Brudenell Carter has been its representative for a dozen years past. No college or society has done more to uphold the purity or the prestige of the profession. To talk, as "Honesty" does, of its having "crept from behind the counter" is a gratuitous insult, no more appropriate than if the College of Surgeons were depicted with a barber's block surmounting the building and the pole projecting at the orthodox angle from its portico.

As I said in a former letter, the real distinctions in the medical profession have only the remotest relation to the titles obtained from the qualifying bodies. It matters not what bishop laid his consecrating hand upon our head; we are all priests alike in the Temple of Physic. No doubt as in the Church so in Medicine, there are differences arising from birth, breeding, and collateral education; but there are no "grades" at all resembling those of bishops, priests, and deacons in our profession. We are alike qualified to practise in medicine and surgery, and the position we fill is determined by a variety of causes, of which the particular diplomas we hold are amongst the least.—I am, etc.,

February 25th. M.R.C.S.ENG., L.S.A.

SIR,—The remarks made by your correspondent, who signs himself "Honesty is the best Policy," ought certainly not to have been made over a *non de plume*. Possibly he felt too much ashamed of his own sentiments to allow his professional brethren to know who he is.

Having passed both, I can say that the examination for the L.S.A. is every whit as certain, and infinitely more practical, than that of the Conjoint Board. By what right does your correspondent call it the "lowest English qualification," or suggest that it "crept from behind the counter"? Let him remember that it was at one time the only qualification obtainable. The title is, I allow, unfortunate, as the present popular idea of "Apothecary" is not its original meaning, and there is no doubt that it is the absurd high falutin' style of remarks made by your correspondent and others of a similar turn of mind who happen to hold, as he evidently does, a more high sounding but not a bit "superior" qualification, that has led to the injustice done by confessedly ignorant judges to the late Mr. Hunter. The law of self-preservation exists as strongly with the L.S.A. as anyone else, and if he happens to be earning his living in a district where one of your "superior" qualified men finds him at least as able as himself, and who sets the report in circulation that the L.S.A. is practically little better than a druggist and ought not to be allowed to practise (and I have known it done), who shall blame him if he lets his patients know that he is a physician and surgeon. In the ordinary common sense meaning of the words he has a perfect right to do this. Your correspondent asks: "Do the public when they say they wish to consult a physician mean they want the opinion of an L.S.A.?" Certainly not if the L.S.A. is a general practitioner, nor do they want any other man acting in that capacity, whether he be M.D. or anything else. They want a specialist or a consultant, let his diploma or degree be what it may.—I am, etc.,

February 28th. M.R.C.S.ENG., L.R.C.P.LOND., L.S.A.

OBITUARY.

WILLIAM HUGHES WILSHIRE, M.D.,

Formerly Physician to Charing Cross Hospital.

DR. W. H. WILSHIRE, who died recently in his 83rd year, graduated as M.D. of the University of Edinburgh in 1836, and was appointed Joint Lecturer in Botany at Charing Cross Hospital Medical School in November, 1838. In 1841 he was appointed Joint Lecturer in Materia Medica, and in 1842 he was admitted a Licentiate of the Royal College of Physicians under the old regulations. He retained the Lectureship of Botany untill 1847, and that on Materia Medica until 1855, in which year he was appointed Joint Lecturer on Medicine. Meanwhile he had acted as Assistant-Physician and Physician to the hospital, and eventually retired in March, 1866. He was also at one time Physician to the Royal Infirmary for Diseases of Children, Waterloo Road, and was President of the Medical Society of London in 1855. He published a work on *The Principles of Botany* for the use of students in medicine; a course of lectures on Diseases of Children, in the *Medical Times*, 1847-49; and Lectures also in the *Lancet*, as well as many other contributions to this and other medical journals.

We are indebted to Dr. T. Carter Wigg for the following appreciation of the character of Dr. Wilshire, who was but little known to the present generation:

When in 1860 I entered at Charing Cross Hospital Dr. Wilshire was one of the Assistant Physicians and Lecturer on Medicine. As a teacher he was vigorous and terse. Though he held his own opinions strongly, he was not dogmatic, but always ready to show that there might be another view, and to train his hearers to think for themselves. The subject-matter of his lectures was always carefully thought out and definite rules laid down. He was a firm believer in the scientific method in medicine, but he as strongly advised the study of the practice of the art. I remember some of his distinctions between the science and art of medicine: thus he would say, "Science speaks, art acts. Science studies the nature of poisons, the means by which and how they kill, but art flies to the stomach pump and antidotes. Science looks to essence and cause, art to facts and effects." He took great interest in diseases of the skin. For this reason other members of the staff voluntarily transferred cases to his care, and at one time he seriously contemplated devoting himself as a specialist to diseases of the skin. He spared no pains or time to explain his views of treatment and pathology, laying down very definite lines upon which the student might afterwards build the superstructure of clinical study.

Dr. Wilshire was naturally of a very artistic nature, and after his retirement he devoted much of his time to painting and art studies, but his eyesight not being strong he relinquished it years ago. He was well read both in Greek and Latin classics, and his pronunciation of Latin softly like the modern Italian will be remembered by those who knew him; he spoke German and French with ease, and of Arabic and Hebrew he had a good knowledge, having resided for some years in Algeria and Morocco. Chemistry and botany had much interest for him, and he strongly recommended the study of botany by medical men as a means of demonstrating that Nature's methods in plants and animals were alike.

As a physician he was most painstaking, striving to establish a diagnosis by the process of elimination, giving his reasons step by step. The interest he displayed in the welfare of his patients in or out of hospital was great. Indeed, no trouble or time would he spare himself to give the benefit of his help and guidance.

In manner he was somewhat reserved and abrupt, but always courteous. He was punctual and methodical in all that he did; never in a hurry, but when once a thing was done he was ready to do the next. When once the ice was broken the genuine inquirer soon realised the extent of his knowledge and his friendly readiness to help.

Austere, almost to severity, at times, none could more thoroughly enjoy a joke, even though it was against himself. Upon concluding a lecture one morning upon the advantages of botany, he concluded with the admonition to cultivate a "botanical eye," and in the afternoon's lecture finished with the advice to get a "clinical eye"; this provoked a laugh, which much annoyed him. Upon my going into the museum afterwards he insisted upon knowing why the laughter; I tried to evade the inevitable, but out it had to come. The question was, which was his clinical, and which his botanical eye? He quite enjoyed the joke—he suffered from marked divergence of one eye.

To the teaching staff of my student days my memory reverts with respect and gratitude, but to none more than to him to whose personal kindness many a time and oft have I been indebted. It is now my duty, as it is my pleasure, to recall his personality and ability as a professor, teacher, and physician, and my desire, inadequately though it be, to exalt and extol his memory.

JOHN ROSE, M.A., M.D.ABERD.,

Honorary Consulting Surgeon to the Chesterfield and North Derbyshire Hospital.

DR. JOHN ROSE, of Dale Bank, Chesterfield, died on March 7th, at the age of 76. He was born at Perth House, Banff, N.B., in 1822. After taking the degree of M.A. at the University of Aberdeen, he studied medicine, and obtained the degree of M.D. in the same University. He then entered the Royal Navy, and was stationed for some time at Haslar Hospital. He was Surgeon on H.M.S. *Frolic* in the Mediterranean, and Staff-Surgeon on H.M.S. *Flying Fish* and H.M.S. *Nimrod*, during the China war 1857-58, and obtained the medal with two clasps. He was Staff-Surgeon to H.M.S. *Eagle* in 1859. He was author of *Letters from the Mediterranean*, *Notes on China*, and numerous articles and reports of medical and surgical cases in the medical papers. On retiring from the naval service he became Resident Surgeon to the Kidderminster Hospital, where he remained nine years, leaving that for a similar appointment at Chesterfield, which he held for twenty-three years. After his retirement from the service Dr. Rose continued to take an interest in the welfare of seamen, particularly in connection with diet, and was an early advocate of the use of condensed water. and of the issue of preserved potatoes. Some years ago it was found that he was suffering from valvular disease of the heart, and he has since lived in retirement, though maintaining his interest in medical and charitable work to the last. He died in his sleep.

A friend writes of him that he was "a man who made no enemies, whom it was a privilege to know, and whom to know was to love. Any scheme for the good of his fellow-creatures was sure of the sympathy and practical help of Dr. Rose. He was a good Churchman, a staunch teetotaller, a true friend, an honest and upright man; and his death creates a void in Chesterfield which it will be difficult to fill."

JAMES WILLIAMSON, M.D.St.And., L.R.C.S.Edin., L.S.A.

Dr. James Williamson, whose death at the age of 84 is announced, was the son of a Baptist minister of North Shields. After serving a term of apprenticeship he became a medical student at Edinburgh. Before qualifying he went for a cruise as surgeon on a Greenland whaler, which became ice bound in Davis Straits from October 5th, 1835, to February 19th, 1836; the crew were reduced to great straits and twenty-seven died of scurvy. When at last liberated only sixteen hands remained to work the ship to the Orkney Islands. After qualifying in Edinburgh he became Resident-Surgeon to the Dispensary of South Shields, and subsequently Surgeon to the Jarrow Chemical Company—an office which, with a considerable private practice, occupied all his time. In South Shields he was universally respected alike by the public and the profession. About twenty-two years ago his energy and health failed somewhat, and he retired from practice, settling down in Petherton Road, Highbury, London, where he died. In 1897 he celebrated his golden wedding. Mrs. Williamson, three daughters, and two sons—one of whom is Dr. James Mann Williamson, of Ventnor—survive to feel a loss which by care and affection they have done much to postpone.

Dr. Glover, of Highbury, writes to us as follows: "I should like, with your permission, to say a few words about my late and most esteemed master, Dr. Williamson. He was a most honourable example of the general practitioner of his day. He never ceased to take an interest in the profession and in the great revolutions of practice which his great age enabled him to witness. With traces of the old sailor in him, dating from his Arctic adventure, he was in all respects a gentleman. His tastes were classical; his practice was arduous; his prescriptions were practical; his principles were deep and religious. He was born on December 9th—Milton's birthday. Though he did not much affect poetry, he was Miltonic in his Puritanism, his religion being simple in its strong faith and in all the virtues which grow out of such faith. Though a staunch Nonconformist, he was conservative in his religious creed and in his resistance to such views as Darwin's, but on all ordinary subjects he was liberal almost to the degree of being radical. As a friend he was invaluable and unchanging, and, taken for all in all, I do not expect to meet a man more kind, more upright, or more devout."

WILLIAM STOKES GRIFFITH, M.A., M.B.Cantab., F.R.C.S.Eng.

We regret to record the death, at the age of 34, of Dr. Griffith, on November 17th, 1898, at Kimberley, Cape Colony. He was the son of Judge Griffith, who recently retired from the position of county court judge of the Wolverhampton Circuit, and was formerly Attorney-General for Cape Colony before responsible government was granted.

Dr. Griffith entered Trinity College, Cambridge, in 1882, and graduated with honours in Classics three years later. He received his medical training at St. Thomas's Hospital, where he later held the post House-Surgeon. In 1893 he was appointed Senior Resident Medical Officer of the Royal Free Hospital. It was whilst he held this appointment that he contracted phthisis, the disease which ultimately caused his death. After a voyage to the West Indies and a stay for some months at Falkenstein, he went to the Cape Colony early in 1895, and spent about a year in Aliwal North and in Basutoland, where he held the post of Acting Medical Officer at Quiting. In April, 1896, he went to Kimberley, and shortly afterwards he obtained the post of Senior House-Surgeon to the hospital, a post he continued to hold till the time of his death. He was also President of the Griqualand West Branch of the British Medical Association.

An original thinker, a clever and hard-working surgeon, a kindhearted and true gentleman, he gained the respect of and endeared himself to doctors, nurses, and patients in the institution to which he was attached, and to all others with whom he came in contact.

Mr. Richard Faircloth, F.R.C.S.Eng., one of the oldest members of the profession, died recently at his house in Kensington. He was born in 1810, entered at Guy's Hospital in 1829, and was afterwards apprenticed to Dr. Robertson, of Northampton. He settled at Newmarket, and for many years became the trusted friend and adviser of all the best-known racing men of that time—Admiral Rous, Mr. George Payne, and the Duke of Rutland, the last of whom remained ever a staunch friend. Finding twenty years ago that sciatica unfitted him for hard work, and being possessed of ample means, he retired to Kensington. A courteous, quiet gentleman of the old school, he made many friends, nearly all of whom he survived.

Dr. Robert P. Harris, who died at his home in Philadelphia on February 20th at the age of 75, was well known by his contributions to obstetrical and gynæcological literature. He took his doctor's degree at the University of Pennsylvania in 1844, and became a Resident Physician in the Pennsylvania Hospital. He was the American editor of Playfair's *Midwifery*, and he did much to bring into favour the operations of Cæsarean section and symphysiotomy, on the results of which he collected a large mass of statistics. Dr. Harris was a prolific writer on medical subjects, but was perhaps even better known as a student of horticulture. His delight was in the acclimatisation of vegetables from other countries, and he introduced a number of melons and cucumbers from Italy and elsewhere into the Southern States and California. At the time of his death he was Vice-President of the Pennsylvania Horticultural Society.

The death occurred on March 4th, in his 58th year, of Mr. Richard Warren Pendleton. He was the son of the late Captain Henry Pendleton, of co. Meath. He obtained the diploma of L.R.C.S.I. in 1865, and became M.R.C.P.I. in 1881. He commenced practice in Liverpool, but illness compelled him to go to Port Augusta, South Australia, where he held the appointments of Medical Officer to the Prison and Police, and was Honorary Surgeon to the Port Augusta Hospital. Whilst in South Australia he met with a carriage accident, which seriously affected his spine and permanently impaired his health. He returned to England in 1887, and after undergoing treatment started a medical home at Brighton.

Deaths in the Profession Abroad.—Among the members of the medical profession in foreign countries who have recently died are Dr. Mavrogeni Pacha, of Constantinople, First Physician-in-Ordinary to His Majesty the Sultan; Dr. Loir, some time Professor of Toxicology at Strassburg and afterwards in the Faculty of Science of Lyons, of which he was Dean; Dr. Vladimir Vasiljevic Ipjakoff, formerly Lecturer in the University of Moscow; Dr. H. M. Tarnowski, Director of the St. Petersburg Maternity Hospital, and Dr. Charles F. Taylor, of New York, one of the foremost orthopædic surgeons of the United States.

ROYAL NAVY AND ARMY MILITARY SERVICES.

THE ARMY MEDICAL DEPARTMENT REPORT FOR THE YEAR 1897; WITH APPENDIX, VOLUME XXXIX.

As in previous years, we have again to speak in the highest terms of this annual official report, which, notwithstanding the complicated nature of the facts to be dealt with, is always not only full, but correct in detail.

Classification.—In this volume the revised nomenclature of diseases has been used, but at the same time, certain synonyms not actually forbidden are retained for inconvenience in the military statistical returns. On the whole, these army returns are little affected by the change.

Admission and Mortality Ratios.—The first broad result to be noted is that, in the United Kingdom, both the admission and mortality ratios during 1897 showed a decline compared with the previous year, and also with decennial averages. But this satisfactory result did not hold at several foreign stations, for, while Bermuda, Mauritius, Straits, Cape, Ceylon, and especially Egypt, showed declines, increases obtained at Gibraltar, Malta, West Indies, China, and India. In a strength of 198,294 of the British army, at home and abroad, there was a ratio per 1,000 in 1897 of 62.25 constantly sick, as against a decennial average of 58.57. This varied very much, from 37.95 at home, 23.77 in Canada, 26.72 in Bermuda, to 87.00 in the West Indies, 101.38 in India, and no less than 114.38 in China. Of course, ratios are affected by the total strength of troops in a command, for moderate sickness in a small body may give high ratios, compared with ratios spread over a large number, with varying conditions of healthfulness. Abroad, a ratio of from 50 to 60 per 1,000 constantly sick may be considered moderate. But the ratios of deaths do not at all correspond, in many instances, with that of admissions or constantly sick: for instance, Bermuda, in 1897, with a strength of 1,521, had 687 admissions, and 17 deaths; while China, with a strength of 1,417, had 2,973 admissions and 11 deaths. The sickness in the former place, although in the aggregate much less, was thus far more fatal than in the latter; enteric fever was frequent in Bermuda; venereal diseases chiefly swelled the enormous total in China. The sick time to each soldier, at home and abroad, in 1897 was 22.72 days; against a decennial average of 21.38, it varied from a minimum of 8.67 in Canada, 13.85 in the United Kingdom, to 37.00 in India and 41.75 in China. It may be deduced from the foregoing that, of our army at home or abroad, about 6 per cent. are on an average non-effective through sickness.

Zymotic Diseases.—Passing to more detail, at home not a single admission occurred from small-pox, but there were no fewer than 537 cases of scarlet fever, of which an epidemic at Caterham furnished 292 admissions. Ireland, and particularly Dublin, had as usual a bad pre-eminence of enteric fever, which in the latter place, notwithstanding recent sanitary measures, is still ascribed to defective drainage and polluted water supply. Diphtheria showed decline, but continued to appear in Aldershot, notwithstanding "progressive amelioration" in the sanitary condition of the camp. The antitoxin treatment, it is stated, was employed with beneficial results.

Tuberculosis.—Tuberculous diseases still showed progressive decline.

Venereal Diseases.—These diseases were both under the previous year and the decennial average. Improvement was most marked in the Western, North-Eastern, and Scottish districts, the greatest prevalence being in the Dublin, Western, Belfast, and Woolwich districts.

Suicide. — The remarkable and inexplicable average of suicides was maintained, the total being 23, against a wide yearly average of 21.

Crete.—Among foreign stations it is interesting to find Crete figuring, but our partial occupation of it has been too short to give average results. Its salubrity is estimated as follows: The climate on the whole is good, though at times trying, owing to debilitating south winds in summer, and gales and heavy rains in winter; yet, even in November and December, the thermometer did not drop below 46° in the day time.

India.—In India, during 1897, both admissions and constantly sick were above the figures of the preceding year and the decennial average, and this notwithstanding that the returns do not include the European troops employed in the Frontier expeditions, by which the average strength reported on was reduced to 64,531. The admissions were higher among men in their first year of Indian service showing progressive diminution during subsequent years, a result no doubt due to the weeding out of the unfittest and survival of the fittest. Small-pox caused 24 admissions and 4 deaths. There were 5 cases of plague, 3 in Bombay and 1 each in Poona and Purandhur all recovered. Enteric fever showed an increase of 6.3 per 1,000 admissions and 2.31 deaths; it gave an aggregate total of 2,050 admissions, and a sad total of 556 deaths, and occurred in every district except Aden. Medical officers, in default of finding a cause of infection in food, water, or milk supply, ascribe the spread, not to the barracks, but to insanitary bazaars visited by the men. Cholera caused 116 admissions and 80 deaths, chiefly through an outbreak at Sitapur.

Special Reports.—Appended to the report are some very interesting special reports, among which we may mention that on Hygiene, for 1898, by Colonel Notter, R.A.M.C., embracing a review of sanitary legislation, literature, and practical work during the year; An Account of Operations and Wounds at Netley during 1897-8, by Colonel Stevenson; Surgeon-General Gore's Summary of the Operations on the North-West Frontier of India from June, 1897, to April, 1898; and a most interesting account of the Surgical History of the Tirah Expeditionary Force, 1897-8, by Lieutenant-Colonel Whitehead; also an elaborate report on the International Congress of Hygiene and Demography, by Major W. G. Macpherson, R.A.M.C.

THE MEDICAL DEPARTMENT OF THE UNITED STATES ARMY IN THE LATE WAR.

THE official report of the Special Commission appointed by the United States Government to investigate the conduct of the War Department in the recent war with Spain, has now been issued. In regard to the general question, the Commission has come to the conclusion that "there was lacking in the general administration of the War Department during the continuance of the war with Spain that complete grasp of the situation which was essential to the highest efficiency and discipline of the army." With regard to the Medical Department in particular the findings of the Commission are as follows:

1. That at the outbreak of the war the medical department was, in men and materials. altogether unprepared to meet the necessities of the army called out.

2. That as a result of the action through a generation of contracted and contracting methods of administration, it was impossible for the department to operate largely, freely, and without undue regard to cost.

3. That in the absence of a special corps of inspectors, and the apparent infrequency of inspections by chief surgeons, and of official reports of the state of things in camps and hospitals, there was not such investigation of the sanitary conditions of the army as is the first duty imposed upon the department by the regulations.

4. That the nursing force during the months of May, June, and July, was neither ample nor efficient, reasons for which may be found in the lack of a proper volunteer hospital corps, due to the failure of Congress to authorise its establishment, and to the non-recognition in the beginning of the value of women nurses and the extent to which their services could be secured.

5. That the demand upon the resources of the department in the care of sick and wounded was very much greater than had been anticipated, and consequently, in like proportion, these demands were imperfectly met.

6. That powerless as the department was to have supplies transferred from point to point, except through the intermediation of the Quartermaster's Department, it was seriously crippled in its efforts to fulfil the regulation duty of "furnishing all medical and hospital supplies."

7. That the shortcomings in administration and operation may justly be attributed, in large measure, to the hurry and confusion incident to the assembling of an army of untrained officers and men ten times larger than before, for which no preparation in advance had been or could be made because of existing rules and regulations.

8. That notwithstanding all the manifest errors, of omission rather than of commission, a vast deal of good work was done by medical officers, high and low, regular and volunteer, and there were unusually few deaths among the sick and wounded.

The Commission makes definite recommendations for the future conduct of the Medical Department, urging the necessity of a larger force of commissioned medical officers; authority to establish in time of war a proper volunteer hospital corps; the establishment of a reserve corps of selected trained women nurses; extra supplies of all sorts to be held constantly on hand; improvement in transportation; less red tape; and the authorisation of surgeons to purchase such articles of diet as may be necessary for the proper treatment of soldiers too sick to use the army ration.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: **EDWIN FOLLIOTT**, Surgeon, to the *Eclipse*, for disposal, March 16th; **BERNARD LEY**, Surgeon, to the *Assaye*, undated; **WALTER H. S. SEQUEIRA**, M.B., Surgeon, to the *Lapwing*, undated; **HERBERT A. JULIUS**, Surgeon, to the *Sphinx*, undated; **GEORGE T. COLLINGWOOD**, Staff-Surgeon, to the *Hotspur*, February 28th; **MATTHEW J. O'REGAN**, Surgeon, to Bermuda Hospital, February 28th; **SIDNEY ROACH**, Surgeon, to the *Alert*, February 28th; **EUSTACE ARKWRIGHT**, Surgeon, to the *Renown*, for the *Columbine*, February 28th; **OSWALD REES**, M.D., Surgeon, to the *Wildfire*, for Royal Marine

Depôt, Walmer, March 15th; **Alan G. Eastment**, Surgeon, to the *Jason* March 16th; **Frank Bradshaw**, Surgeon, to the *Howe*, March 16th; **Frederick D. Lumley**, Surgeon, to Haulbowline Hospital, March 16th; **Charles W. Sharples**, M.B., Staff-Surgeon, to the *Monarch*, for Ascension Hospital, March 13th; **Hubert Holyoake**, to the *Australia*, temporary, March 13th; **Johnston H. Acheson**, M.B., Surgeon, to the *Victory*, for disposal, March 8th; **Walter H. O. Garde**, Surgeon, to the *Victory*, for the *Research* (lent); **James G. Watt**, Surgeon, to the *Wildfire*, for the *Triton* (lent); **John H. Pead**, M.B., Surgeon, to the Royal Marine Artillery, Eastney, March 27th.

Staff-Surgeon **John Rose**, M.D., Retired List, died at Dale Bank, Chesterfield, suddenly, on March 7th, at the age of 76. He was appointed Surgeon, May 10th, 1847, and Staff-Surgeon, May 10th, 1856. While Assistant Surgeon of the *Frolic* he served on shore during the insurrection in Cephalonia in 1849. During the cholera and fever epidemics in 1850 he was in medical charge of the *Frolic* and *Spitfire*. As Surgeon of the *Nimrod* he was at the capture of the Peiho Forts in China, in 1858, receiving the medal with clasp.

ROYAL ARMY MEDICAL CORPS.

Major Henry J. McLaughlin, from half-pay, is restored to the establishment, with precedence next below D. F. Franklin, *vice* J. R. Barefoot, deceased, February 23rd. Major McLaughlin was placed on half-pay on account of ill-health, September 2nd, 1894.

CHANGES OF STATION.

The following changes of station amongst the officers of the Royal Army Medical Corps have been officially reported to have taken place during the last month:

	From	To
Surgeon-General W. Taylor, M.D., C.B. ...	War Office ...	India.
,, H. S. Muir, M.D.... ...	Egypt	War Office.
Lieut.-Colonel J. A. Cleary, M.B.	Crete	Woolwich.
,, H. J. W. Barrow	Egypt	Punjab.
Major R. W. E. H Nicholson	Bengal	Waterford.
,, J. G. W. Crofts	Athlone ...	Madras.
,, J. Battersby	—	Bombay.
,, S. E. Duncan	Belfast	Holywood.
,, E. Davis	Madras	Devonport.
,, T. Daly	—	Netley.
,, L. P. Mumby, M.B.	Colchester ...	Bengal.
,, B. L. Mills, M.D.	Pembroke D'ck	Newport.
,, T. H. Corkery	Waterford ...	Bombay.
,, C. H. Burtchaell, M.B.	Punjab ...	Woolwich.
,, R. J. D. Hall	Dover	Bombay.
,, C. W. Allport, M.D.	Malta	Curragh.
Captain W. C. Poole, M.B.	Dublin	Athlone.
,, J. Girvin	Netley	Cyprus.
,, E. E. Powell	—	Aldershot.
,, E. McK. Williams	Gosport ...	,,
,, I. A. O. MacCarthy	Crete	Bombay.
,, C. B. Lawson, M.B.	Punjab... ...	Dover.
,, F. A. Symons, M.B.	Madras ...	Devonport.
Lieutenant R. E. G. Phillips...	Home District	Woolwich.
,, P. McKessack, M.B.	Crete	Portsmouth.
,, H. O. B. Browne-Mason ...	Woolwich ...	Punjab.
,, B. Watts	Aldershot ...	,,
,, A. B. MacCarthy, M.B. ...	Dover	Lydd.
,, J. S. Gallie	Edinburgh ...	Maryhill.
,, A. E. Thorp	Liverpool ...	Bengal.
,, H. Herrick	Curragh ...	Bombay.
,, E. J. Dobbin	Aldershot ...	,,
Quartermaster J. H. W. Beach	Crete	Chester.
,, J. Tandy	Egypt	Portsmouth.
,, R. Hawkey	—	Netley.

Major J. H. Nicholas, retired pay, has relinquished his medical charge at Devonport.

The newly-appointed Lieutenants are stationed as follows: H. P. W. Barron, J. E. Hodgson, A. L. Scott, M. H. G. Fell, G. H. Goddard, T. C. Lauder, M.B., J. W. H. Houghton, D. E. Curme, G. M. Goldsmith, M.B., R. H. Lloyd, D. Harvey, M.B., J. N. Sloan, M.B., H. E. Haymes, F. J. Brakenridge, G. C. Phipps, N. J. C. Rutherford, M.B., H. D. Packer, W. W. Scarlett, H. K. Palmer, A. O. B. Wroughton, and F. Ashe, at Aldershot; L. E. L. Parker, at Netley; J. G. Gill, at Canterbury; G. W. G. Jones, at Colchester; W. B. Winkfield, at Hounslow; H. S. Taylor and G. J. A. Ormsby, M.D., at Woolwich; L. Humphry, at Gosport; R. S. Rodger, M.B., at Dover; J. W. Leake, station not named.

ARMY MEDICAL RESERVE.

Surgeon-Lieutenant H. C. Reid, M.B., is promoted to be Surgeon-Captain, March 11th.

INDIAN MEDICAL SERVICE.

Colonel L. D. Spencer, M.D., C.B., Bengal Establishment, is promoted to be Surgeon-General from October 25th. His commission as Assistant-Surgeon dates from March 31st, 1865; that of Surgeon-Colonel from October 24th, 1892. He was Principal Medical Officer with the Waziristan Expedition under Sir William Lockhart in 1894-5, was mentioned in despatches, made a Companion of the Bath, and received a medal with clasp.

The retirement from the service of Colonel W. P. **Warburton**, M.D., C.S.I., Bengal Establishment, and Lieutenant-Colonel G. F. **Nicholson**, M.D., Bengal Establishment, the announcement of which has already appeared in the British Medical Journal, has received the approval of the Queen.

Surgeon-Major **Francis Nottidge Macnamara**, M.D., late of the Bengal Establishment, died on March 5th, aged 67. He entered the service as Assistant-Surgeon, June 18th, 1853; became Surgeon-Major, June 18th, 1873; and retired on a pension, February 14th, 1876.

MILITIA MEDICAL STAFF CORPS.

Surgeon-Captain T. W. Richardson is promoted to be Surgeon-Major, March 15th. He resigns his commission from the same date, retaining his rank and uniform.

Supernumerary Surgeon-Lieutenant S. O. **Oliver** is appointed Surgeon-Lieutenant within the Establishment, March 15th.

THE VOLUNTEERS.

The undermentioned Surgeon-Lieutenants are promoted to be Surgeon-Captains, dated March 15th: D. J. **Penney**, M.B., 1st Argyll and Bute Artillery; R. A. **Johnston**, 1st Volunteer Battalion the Sherwood Foresters (Derbyshire Regiment); A. **Leitch**, M.B., 1st (Renfrewshire) Volunteer Battalion Princess Louise's Argyll and Sutherland Highlanders.

Surgeon-Lieutenant T. G. **Jenkins**, 1st Volunteer Battalion the Royal Welsh Fusiliers, has resigned his commission, March 15th.

Mr. **James R. Foulds**, M.B., is appointed Surgeon-Lieutenant in the 1st Dumbartonshire Rifles, March 15th.

MEDICO-LEGAL.

Replies in this column are limited to questions affecting the legal interests and privileges of the medical profession at large. The column is not to be used as a medium for affording legal advice in private or personal matters as to which the applicant ought to consult his own solicitor.

THE ROYAL BLUE BOOK.

The lady whose name appeared in the Trades and Professional Section of the Royal Blue Book (see British Medical Journal of March 11th, p. 637), writes: I was quite unaware of my name being in the "Trades" list: it was an error of the man from whom I ordered a copy of the book. A new rule, so Kelly's clerk tells me, gives to "Trades" the privilege of such a notice on buying a Blue Book. It would not have occurred to me that medicine came under such a heading. I have seen the publishers, who at once acknowledged that it was a mistake on their part. Will you kindly notify that it is a mistake in an early issue of the British Medical Journal? It will certainly not recur in the May number of the Blue Book.

MEDICAL WITNESS'S FEES IN MAGISTERIAL CASES.

H.J.T. states that he was required to give evidence before the magistrates at a distance of over 8 miles from his house, for which he was paid 10s. 6d., and mileage 5s. He enquires if he is not entitled to 21s. and mileage, being the fee he received for giving evidence at assizes.

⁂ The fee received by our correspondent is, we regret to say, all that he is entitled to claim under the law as now existing. Efforts are being made by the British Medical Association with a view of securing a revision (on a proper remunerative basis) of the scale of fees at present allowed to medical practitioners for giving evidence in criminal cases.

AN ACTION AGAINST A MEDICAL MAN.

In the case of Taylor *v.* Findlater the plaintiff sought to recover from the defendant, a doctor, damages for alleged negligence in his professional treatment of her. It appeared that the defendant opened an abscess and inserted a drainage tube. This drainage tube was afterwards missed, but it was supposed that the patient had lost it when she removed the bandages. The wound eventually healed, but ultimately a second operation was performed by another practitioner and a piece of indiarubber tubing removed from the arm. The defendant denied that he had been guilty of any negligence; and corroborative evidence was given by Dr. Douglas Drew and Mr. Charles Stonham, who expressed the opinion that it would not have been justifiable to slit up the sinus in order to search for the tube. The jury found a verdict for the defendant, and judgment was given accordingly. Dr. Findlater was defended by the Medical Defence Union, and the case illustrates the advantage of a medical man belonging to such an organisation.

UNIVERSITIES AND COLLEGES.

UNIVERSITY OF CAMBRIDGE.

Medical Degrees.—At the Congregation on March 11th the following degrees were conferred:—*M.D.:* R. D. R. C. Atkins, B.A., Clare; H. Cooper Pattin, M.A., Jesus. *M.B. and B.C.:* F. J. Lidderdale, Trinity; H. M. Hart-Smith, B.A., Caius; A. C. Jordan, B.A., Sidney.

Honorary Degree.—The degree of M.A. *honoris causa* was on March 16th conferred on Dr. G. Sims Woodhead, Professor of Pathology.

Allen Studentship.—Professor Macalister and Mr. F. Darwin, M.B., have been appointed electors to the valuable Allen Studentship to be awarded for original research.

UNIVERSITY OF EDINBURGH.

Honorary Degrees.—The Senatus Academicus of the University of Edinburgh conferred the honorary degree of LL.D. on the Right Hon. the Lord Balfour, Secretary for Scotland, Lord Rector of the University of Edinburgh, on March 14th, on the occasion of his delivering his address as Lord Rector. The Senatus has also resolved to confer the same degree at the Graduation Ceremonial on April 14th next on: The Most Hon. the Marquis of Dufferin and Ava, G.C.M.G., G.C.S.I., D.C.L.; Sir William Anson, Bart., D.C.L., Warden of All Souls College, Oxford; William Mitchell Banks, M.D., F.R.C.S.; and Major-General Andrew Wauchope, C.B., C.M.G., one of the numerous heroes of Omdurman and Khartoum.

UNIVERSITY COURT.

The Edinburgh University Court met on Monday, March 13th. Present: The Right Hon. the Lord Balfour of Burleigh (in the chair), Principal Sir William Muir, the Hon. Lord Stormonth Darling, Professors Sir William Turner, Crum Brown, Laurie, and Butcher, Drs. Joseph Bell and Patrick Heron Watson, Sheriff Mackay, and Mr. J. Hope Finlay.

Lectureship on Tropical Diseases.—On a report of the Committee appointed to consider the qualifications of candidates for the Lectureship in Diseases of Tropical Climates, the Court appointed Dr. Andrew Davidson, Edinburgh, to the office for a period of three years from May 1st next.

Chair of Physiology.—The Court approved of the arrangements proposed by the Senatus, under which Dr. E. W. Carlier should carry on the work of the Chair of Physiology until the end of the current session, and also, in conjunction with the additional Examiner, the work in connection with the ensuing examinations in physiology for graduation in medicine and science.

Lectureship in Diseases of the Skin.—The Court, on the recommendation of the Senatus, resolved to institute a Lectureship in Diseases of the Skin, and appointed Dr. W. Allan Jamieson, Edinburgh, as University Lecturer on the subject. In connection therewith the Court approved of a recommendation of the Senatus that, in addition to the two courses—one of which candidates for medical degrees are required to attend—there be a further option of "a course of clinical instruction in diseases of the skin, given by a University Lecturer or by a recognised teacher at not less than twenty meetings in the wards of a recognised hospital, or in the wards of a hospital and in a dispensary, both recognised for the purpose."

Demonstrator of Surgery.—On the recommendation of the Professor. the Court appointed Dr. John Stevenson as Junior Demonstrator of Surgery for the remainder of the current year, in room of Dr. James Gray, who is to resign at the end of the current session.

Bequests.—Intimation was made of the following bequests to the University: (1) By the late Mrs. M. A. Shaw, Ventnor, of £100, to be designated the "Dr. Shaw Gift;" (2) by the late Emeritus Professor Sir John Struthers, of anatomical drawings; (3) by the late Professor Rutherford, of diagrams and microscopical specimens in the department of physiology, and of his books on physiology, histology, anatomy, etc.

The Extra-Mural School of Medicine of Edinburgh.—So far as can be ascertained there are this winter 1,217 students in attendance at the "School of Medicine of the Royal Colleges, Edinburgh," as the Extra-Academical School of Medicine is now styled. The comparable number at about the same date last year was 1,184. The clause of reservation "so far as can be ascertained" must be used, because it is not pretended that these figures represent the full muster of students in attendance at the school. It is indeed a matter for regret that when the new constitution and regulations were established in 1895 provision was not made to ascertain fully and accurately the numbers, names, and addresses of students, with their year of study, as is done on matriculation at the University. It ought not to be difficult to organise a central bureau or registration office, under the care, it might be, of Mr. R. N. Ramsay, the Secretary and Treasurer of the School, where students should at the beginning of each session set down the particulars mentioned; otherwise it would appear to be impossible from time to time to gauge the size of the school.

UNIVERSITY OF WALES.

THE LATE LORD HERSCHELL.—At a meeting of the Standing Executive Committee of the University of Wales, held on March 10th, the following resolution was unanimously passed:

That the Standing Executive Committee of the University of Wales desires to express its profound regret at the untimely death of the late Lord Herschell. The Committee gratefully remembers the ready and powerful support which, in his place in Parliament, Lord Herschell invariably extended to measures for the improvement of education in Wales, and in particular to the charter constituting this University. The Committee deeply honours the unwearied efforts which, in his high position as Chancellor of the University of London, Lord Herschell made to promote the prosperity of that University, and to establish it on a broader basis. In reviewing Lord Herschell's many titles to fame, as a scholar, as a lawyer, as a statesman, and as a man of affairs, the Committee recalls with pride that so illustrious a name has been borne upon the roll of honorary graduates of the University of Wales.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,540 births and 4,853 deaths were registered during the week ending Saturday, last, March 11th. The annual rate of mortality in these towns, which had increased from 19.5 to 21.6 per 1,000 in the three preceding weeks, further rose to 22.2 last week. The rates in the several towns ranged from 13.5 in Cardiff, 13.7 in Gateshead, 16.3 in Croydon, and 16.6 in Swansea, to 28.0 in Manchester, 29.7 in Preston, 29.8 in Oldham, and 30.4 in Halifax. In the thirty-two provincial towns the mean death-rate was 22.0 per 1,000, and was slightly below the rate recorded in London, which was 22.4 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.9 per 1,000; in London the rate was equal to 1.8 per 1,000, while it averaged 1.9 in the thirty-two provincial towns, among which the highest zymotic death-rates were 3.3 in Manchester, 3.6 in Salford, 3.8 in West Ham, and 4.1 in Birkenhead. Measles caused a death-rate of 1.9 in Bolton, 2.6 in West Ham, and 2.8 in Manchester; scarlet fever of 1.0 in Derby and 1.2 in Salford; and whooping-cough of 1.3 in Preston, 1.6 in Hull, 2.1 in Plymouth, and 2.7 in Birkenhead. The mortality last week from "fever" showed no marked excess in any of the large towns. The 90 deaths from diphtheria in the thirty-three towns included 36 in London, 7 in Sheffield, 5 in Leicester, 5 in Leeds, 4 in Cardiff, 4 in Liverpool, and 3 each in West Ham, Portsmouth, Swansea, and Salford. No fatal case of small-pox was registered during the week under notice, either in London or in any of the thirty-two large provincial towns; and 2 small-pox patients were under treatment in the Metropolitan Asylums Hospitals on Saturday last, March 11th. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 2,575 and 2,584 at the end of the two preceding weeks, had declined to 2,540 on Saturday last, the 11th inst.; 217 new cases were admitted during last week, against 202, 241, and 236 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, March 11th, 938 births and 697 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 24.1 and 25.1 per 1,000 in the two preceding weeks, declined to 22.8 last week, but slightly exceeded the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 10.2 in Perth and 16.9 in Dundee to 25.5 in Leith and 28.4 in Aberdeen. The zymotic death-rate in these towns averaged 2.2 per 1,000, the highest rates being recorded in Aberdeen and Leith. The 331 deaths registered in Glasgow included 2 from measles, 2 from scarlet fever, 11 from whooping-cough, and 3 from "fever." Eight fatal cases of whooping-cough were recorded in Edinburgh and 7 in Leith; and 7 deaths from measles occurred in Aberdeen.

HEAVY DEATH-RATE FROM WHOOPING-COUGH IN EDINBURGH.

AT the last meeting of the Edinburgh Town Council, Baillie Pollard said the total fever mortality since the year began was 138, and he wished to add the melancholy fact that 78 of these deaths were due to whooping-cough. From the information he had he was sorry to say that this appalling mortality among children was due to a very large extent to the neglect and ignorance on the part of the parents and guardians of little children. These seemed to act as if whooping-cough were a disease that children must take, and when it got into a family one found that children were wilfully exposed to infection in order that they might take it and get through with it.

SUPERANNUATION.

SAPOO writes: Previous to my appointment as District Medical Officer in this Union I served four years in another and signed "under superannuation scheme." I informed the clerk of these guardians of the fact, but in the three quarterly cheques received there has been no deduction, though I have drawn his attention to the matter. Should I take further steps or am I quite safe?

⁂ When "Sapoo" says he "signed under the superannuation scheme" we assume that he accepted the provisions of the Act of 1896 and that he did not contract himself out of it. Unless he has contracted out we apprehend that he is entitled to all its benefits whether the proper deductions from salary have been made or not. If there has been any error in not making the deductions the overplus will have to be repaid to the guardians. The clerk appears to have made an oversight.

MEDICAL NEWS.

WE learn from a paragraph in the *Times* that the visiting staff of the Dreadnought Seamen's Hospital, Greenwich—Drs. Curnow and Anderson, and Mr. G. R. Turner and Mr. Donald Gunn—have resigned their appointments at the hospital.

THE Treasurer of St. Thomas's Hospital has received an anonymous donation of £1,000 for the endowment of a bed called the "Tom Hughes bed," in memory of Mr. Thomas Hughes, Q.C.

PRESENTATION.—Dr. Francis C. Bryan, upon leaving Littlehampton to practise in London, has been presented by his friends and patients with a silver bowl and an address on vellum.

THE annual meeting of the Asylum Workers' Association will be held at the house of the Medical Society of London (11, Chandos Street, Cavendish Square) on Monday, March 27th, at 3.30 P.M. The chair will be taken by Sir James Crichton Browne, M.D., F.R.S.

A COURSE of lectures on diseases of tropical climates will be delivered by Dr. Manson, the Lecturer on Tropical Medicine to the School, at St. George's Hospital on Tuesday, May 15th, and every succeeding Friday and Tuesday, terminating on July 18th. The lectures will be given at 5 P.M. on each day, and the course is intended for medical men purposing to practise in the Tropics or Eastern Asia. It will be illustrated as far as possible by clinical cases and by demonstrations of parasitic organisms. The fee for the course will be 3 guineas. Further particulars can be obtained on application to the Dean of the Medical School, St. George's Hospital.

AUSTRIAN BALNEOLOGICAL CONGRESS.—The Austrian Balneological Congress will hold its first meeting in Vienna on March 28th, 29th, and 30th. Among the communications promised are the Influence of Baths, Hydropathy, and Climatotherapy on the Circulation and the Blood, by Professors Kisch and Glax; the Dangers of Infection in Health Resorts and Regulations for their Prevention, by Dr. C. Ullmann; Hydrotherapy and Climatology in Hungary, by Dr. Kuthy of Buda Pesth.

THE DROUGHT OF 1897-98.—In a paper read before the Royal Meteorological Society, at its meeting on March 15th, Mr. F. J. Brodie stated that an examination of the rainfall statistics for the British Isles for the eighteen months April, 1897, to September, 1898, showed that the rainfall over the eastern, midland, and southern counties amounted to less than 80 per cent. of the average, and in the south-eastern counties to less than 60 per cent., the smallest proportion of all being 51 per cent. in London. From an examination of the Greenwich rainfall records since 1841 it appeared evident that for length and severity combined the recent spell of dry weather was the most remarkable experienced there during that period. The effects of the extremely dry weather of 1897-98 were rendered the more marked owing to the circumstance that for several years there had existed over England, and especially over the central and southern parts, a remarkable tendency towards dry weather.

PROPOSED EPILEPTIC COLONY IN CHESHIRE.—As we have already announced, the first step has been taken towards the establishment in Cheshire of a village colony for epileptics. A committee has been collecting funds in Manchester with this object for some time past, and have obtained from the David Lewis trustees a grant of £50,000. An estate of 450 acres at Sandlebridge, near Knutsford, has been purchased for the purposes of the colony. The establishment will consist of villas, gardens, and farm buildings, grouped round the Social Hall and central administrative buildings; and picturesqueness is to be made a feature of the scheme, so that the colony will have the appearance of a real village rather than that of a scattered and straggling institution. Remembering what is being done by the Poor-law authorities of Manchester and Chorlton for pauper epileptics, we may congratulate Manchester on its benevolent enterprise in dealing with this afflicted class, whatever their social position, and wish success to the committee in obtaining the further funds to carry out the scheme in its entirety.

THE MEDICAL PROFESSION AND TEMPERANCE.—In all the stages of the modern temperance movement members of the profession of medicine have taken a conspicuous part. Yet, till comparatively recently, temperance societies have done little to enlist the educational services of medical practitioners. Among the earliest temperance associations which systematically evoked skilled medical advocacy of temperance was the National Temperance League, which for a long series of years has invited to a breakfast the members of the British Medical Association present at the annual meetings. Following up this excellent work the League last year arranged for a series of lectures in London by Professor Sims Woodhead, Dr. Gilbart Smith, Mr. Pearce Gould, and Dr. Norman Kerr. The influence of these lectures was so marked that a second series has been given at Liverpool, among the lecturers having been Professor Wm. Carter, Dr. Francis Vacher, and Dr. Kelynack. This is a line of educational work which cannot fail to have a great influence for good.

THE CREMATION SOCIETY OF ENGLAND.—Sir Henry Thompson, the President, took the chair at the annual meeting of the Cremation Society of England, which was held at Grosvenor House on March 15th. The report stated that 240 cremations had taken place at Woking during the past year, which was an increase of 67, or 40 per cent., over the previous year. At Manchester 62 bodies were cremated, at Glasgow 12, and at Liverpool, where a branch of the Society had been formed, 27. Sir Henry Thompson gave an address in which he traced the history of the Society during the twenty-five years of its existence, and with regard to the future said that the reform of the system of registration of death was the most important point of their policy. They also desired to construct a completely equipped crematorium in the near neighbourhood of London, and to induce the Local Government Board to consider whether cremation should not be imperative in all cases of death by contagious disease. Sir Henry Thompson stated that he had resolved to delegate the duty of personally investigating the information supplied in the case of every applicant to Mr. H. T. Herring, and that Dr. Sidney Martin would act as consulting officer. Sir Charles Cameron, in seconding the adoption of the report, congratulated the Society on the fact that the Home Office were recommending that clauses giving power to erect crematoria should be inserted in municipal Bills. The re-election of Sir Henry Thompson as President was proposed by the Duke of Westminster, seconded by Dr. Farquharson, M.P., and carried unanimously. A vote of thanks to the Duke of Westminster for his kindness in permitting the meeting to be held at Grosvenor House, moved by Sir Arthur Arnold, brought the proceedings to a close.

RANAGHAT MEDICAL MISSION.—In a corner of what are known as the Lower Provinces of Bengal, at a town called Ranaghat, situate about forty-five miles from Calcutta, a medical mission has been at work since 1894 which appears to be unique in many of its features. Unconnected with any of the great missionary societies, its establishment and continued progress are due to the energy and faith, as well as very largely to the pecuniary support, of a single family—that of Mr. James Monro, C.B., who will be remembered in London as having filled for a few years the office of Commissioner of the Metropolitan Police. Having previously served for more than a quarter of a century in the Bengal Civil Service, and had charge of the district in which Ranaghat is situated, both he and Mrs. Monro had become impressed with the need for medical mission work amongst the millions of Bengal natives, and knowing the district around Ranaghat well, they determined, with the assistance of their two sons, one of whom is M.B.&B.C.Camb., and the other a B.A.Camb., and their two daughters, one of whom is L.R.C.P.&S.Edin., and the other a trained nurse, to commence operations there in 1894. Since that time the attendances at their dispensaries have exceeded 190,000, of whom 80,000 have been new patients. They have been joined in their work by other qualified practitioners, both male and female, and by additional trained nurses, so that the European staff of the mission now numbers fifteen persons, and there are in addition native dispensers, male and female nurses, and hospital servants. From the fifth annual report we find that there have been 94 major and 682 minor operations performed during the year 1898; that there is a small hospital for men, and one for women; and that the estimated expense of the dispensaries alone for the current year is £1,400, most of which comes out of the pockets of the mission staff. During the year Dr. Charles Monro and his wife were invalided for some months in consequence of overwork, and had to seek rest and change in Europe; and the director in his report makes a strong appeal to friends at home to relieve the strain upon the medical staff by sending out two more qualified practitioners, one of each sex, to assist in the daily increasing work of the mission.

MEDICAL VACANCIES.

The following vacancies are announced:—

BELGRAVE HOSPITAL FOR CHILDREN.—House-Surgeon. Appointment for six months. Board and residence. provided, and allowance of £5. Applications to the Secretary, 77 and 79, Gloucester Street, S.W., by March 29th.

BIRKENHEAD: BOROUGH HOSPITAL.—Junior House-Surgeon. Salary, £80 per annum, with board and lodging. Further sum of £20 to £25 per annum is usually obtained in fees. Applications to the Chairman of the Weekly Board by March 21st.

BIRMINGHAM: GENERAL HOSPITAL.—Two Assistant House-Physicians. Appointments for six months. Residence, board, and lodging provided. Applications to the House Governor by April 1st.

BIRMINGHAM: PARISH OF.—District Medical Officer.—Salary, £400 per annum, and allowance of £50 a year towards the hire or keep of vehicle. Applications on forms provided to the Clerk, Parish Offices, Edmund Street, Birmingham, by March 25th.

BLACKBURN AND EAST LANCASHIRE INFIRMARY.—Junior House-Surgeon. Salary to commence £50 per annum, with board, lodging, washing, etc. Applications to the Secretary, 15, Richmond Terrace, Blackburn, by March 25th.

BRACEBRIDGE ASYLUM, Lincolnshire.—Senior Assistant Medical Officer, unmarried, and not over 30 years of age. Salary £50 per annum, with furnished apartments, board, attendance, and washing. Applications to Mr. W. T. Page, jun., Clerk to the Visitors, Bank Street, Lincoln, by April 3rd.

BRIGHTON: SUSSEX COUNTY HOSPITAL.—Fourth Resident Medical Officer, unmarried and under 30 years of age. Salary, £30 per annum, with board, washing, and residence. Applications to the Secretary by March 29th.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—House-Surgeon. Board, residence, etc., provided. Applications to the Secretary by April 10th.

CHARING CROSS HOSPITAL, W.C.—Resident Medical Officer. Salary, £100 per annum, with board and residence. Applications to the Secretary by March 27th.

CHESTER GENERAL INFIRMARY.—Visiting Surgeon. Salary, £80 per annum, with residence and maintenance. Applications to the Chairman of the Board of Management, 29, Eastgate Row North, by March 23rd.

CHORLTON-UPON-MEDLOCK DISPENSARY, Manchester.—Resident House-Surgeon; unmarried. Salary, £100 per annum, with furnished rooms and attendance. Applications to the Secretary by March 29th.

CUMBERLAND INFIRMARY, Carlisle.—Assistant House-Surgeon. Salary, £40 per annum, with board, lodging, and washing. Applications to the Secretary by March 20th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Assistant Anæsthetist. Applications to the Secretary by March 20th.

DENTAL HOSPITAL OF LONDON MEDICAL SCHOOL, Leicester Square.—Demonstrator in Dental Histology. Honorarium of £25 a year. Applications to the Dean by March 21st.

DERBY COUNTY ASYLUM.—Assistant Medical Officer. Salary, £100 per annum, rising to £120, with board, lodging, and washing. Applications to Mr. B. Scott Currey, St. Michael's Churchyard, Derby, by March 22nd.

EDINBURGH UNIVERSITY.—Professor of Physiology. Applications to R. Herbert Johnston, W.S., Secretary, 66, Frederick Street, Edinburgh, by May 20th.

GLASGOW EYE INFIRMARY.—Resident Assistant House-Surgeon. Salary, £50, with apartments and board. Applications to the Secretary, 88, West Regent Street, Glasgow, by March 28th.

GLASGOW UNIVERSITY.—Professor of Pathology. Salary, £1,100. Applications to Alan E. Clapperton, Secretary of the Glasgow University Court, 91, West Regent Street, Glasgow, by March 24th.

GREAT NORTHERN HOSPITAL.—Surgeon to In-patients; must be F.R.C.S. Junior House-Surgeon. Appointment for six months. Salary at the rate of £30 per annum, with board, lodging, and washing. Also Assistant Anæsthetist. Appointment for six months, but eligible for re-election. Honorarium at the rate of 10 guineas per annum. Applications to the Secretary for the first by March 15th and for the latter two by March 20th.

HOLBEACH UNION.—District Medical Officer and Public Vaccinator. Salary, £50, and usual fees. Applications to the Clerk to the Guardians by April 5th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W. —Assistant Physician and Resident House-Physicians. Applications to the Secretary, for the former by March 22nd, and for the latter by March 29th.

LEICESTER INFIRMARY.—Assistant House-Surgeon. Honorarium £43 for twelve months, with board, residence, and washing. Applications to the Secretary, 24, Friar Lane, Leicester, by March 20th.

LIVERPOOL INFIRMARY FOR CHILDREN.—Assistant House-Surgeon. Appointment for six months. Salary, £25, with board and lodging. Applications to the Honorary Secretary by March 31st.

LIVERPOOL NORTHERN HOSPITAL.—Resident House-Surgeon's Assistant. Appointment for six months, subject to re-election. No salary. Board and lodging provided. Applications to the Chairman by November 24th.

MANCHESTER ROYAL INFIRMARY.—Clinical Assistant at the Barnes Convalescent Hospital, Cheadle. Appointment for six months. Board and lodging provided. Applications to the Chairman of the Medical Board, Royal Infirmary, Manchester.

MONMOUTHSHIRE ASYLUM.—Third Assistant Medical Officer: under 30 years of age. Salary, £100 per annum, increasing to £150, with board, lodging, and washing. Applications to the Medical Superintendent, Abergavenny, by March 23rd.

NORTH LONDON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Junior Non-resident Medical Officer. Appointment for six months. Honorarium at the rate of £45 per annum. Applications to the Secretary, 41, Fitzroy Square, W., by April 6th.

NORTH ORMESBY, MIDDLESBROUGH: THE HOSPITAL.—House-Surgeon. Non-resident; unmarried. Salary, £200 per annum. Applications to the Secretary by March 21st.

NORWICH: HEIGHAM HALL ASYLUM.—Assistant Medical Officer. Applications to the Medical Superintendent.

ROXBURGH DISTRICT ASYLUM, Melrose, N.B.—Assistant Medical Officer. Salary, £100 per annum, with furnished quarters, board, washing, and attendance. Applications to the Medical Superintendent.

ROYAL PIMLICO DISPENSARY.—Attending Medical Officer: must reside in the district. Applications to the Secretary, 104, Buckingham Palace Road, by April 3rd.

ST. JOHN'S WOOD AND PORTLAND TOWN PROVIDENT DISPENSARY, N.W.—Third Medical Officer. Applications to the Secretary, 1, Henstridge Villas, St. John's Wood, by March 24th.

ST. LEONARD, SHOREDITCH.—Second Assistant Medical Officer for the Infirmary. Appointment for six months. Salary at the rate of £70 per annum, with rations, washing, and furnished apartments. Applications on forms provided to the Clerk to the Guardians, 213, Kingsland Road, N.E., by March 27th.

ST. MARY, ISLINGTON.—District Medical Officer. Salary, £100 per annum, with usual extra fees; also Medical Officer for the School, Hornsey Road. Salary, £100 per annum. Applications, on forms provided, to the Clerk, Guardians' Offices, St. John's Road, Upper Holloway, N., by March 22nd.

MARYLEBONE INFIRMARY, W.—Clinical Assistant. Appointment for six months. Salary at the rate of £42 per annum. Personal applications to the Medical Superintendent at the Infirmary, Ladbroke Grove Road, W., any morning before March 21st.

SEAMEN'S HOSPITAL SOCIETY (DREADNOUGHT), S.E.—House-Surgeon for the Branch Hospital, Royal Victoria and Albert Docks. Salary, £50 per annum, with board and residence. Applications to the Secretary by March 20th.

SHEFFIELD ROYAL INFIRMARY.—Junior Assistant House-Surgeon. Salary, £50 per annum, with board, lodging, and washing. Applications to the Medical Staff of the Royal Infirmary, Sheffield, care of the Secretary, by March 22nd.

SOUTHAMPTON: ROYAL SOUTH HANTS INFIRMARY.—Assistant House-Surgeon. Appointment for six months. Gratuity £10. Applications to the Secretary by March 23rd.

SWANSEA GENERAL AND EYE HOSPITAL.—House-Physician. Salary, £50 per annum, with board, apartments, washing, and attendance. Applications to the Secretary by March 21st.

TAUNTON AND SOMERSET HOSPITAL.—Assistant House-Surgeon. Appointment for six months. Board, lodging, and washing provided, and honorarium of 10 guineas. Applications endorsed "Assistant House-Surgeon" to the Honorary Secretary, Bank Buildings, Taunton.

TOTTENHAM HOSPITAL.—Resident Medical Officer. Salary, £60 per annum, with board, lodging, and washing. Applications to the Honorary Secretery.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician and House-Surgeon. Appointments for six months. Applications to the Secretary-Superintendent by March 22nd.

MEDICAL APPOINTMENTS.

ANDERSON, James, M.A., M.B., C.M.Edin., B.Hy.Dunelm, appointed Medical Officer and Public Vaccinator for the Seaton Delaval District of the Tynemouth Union, *vice* Robert Anderson, M.D.Edin., L.R.C.S.Eng., resigned.

ANDREWS, R. J., M.R.C.S.Eng., appointed Medical Officer of Health to the Heavitree Urban District Council.

BELLAMY, John H., L.R.C.P.Lond., M.R.C.S.Eng., appointed Junior Assistant Medical Officer to the Union Infirmary, Fir Vale, Sheffield.

CAVE, E. J., M.D.Lond., appointed Honorary Physician to the Royal United Hospital, Bath, *vice* A. E. W. Fox, M.B., F.R.C.P.Edin., resigned.

DAY, F. H., M.B., Ch.B.Vict., appointed House-Surgeon to the Coventry and Warwickshire Hospital, *vice* H. Bankes-Price, B.A.Oxf., M.R.C.S.Eng.

DUNN, W., M.B., C.M.Aberd., appointed Medical Officer for the Mildenhall District of the Mildenhall Union.

HEATH, A., M.B., appointed Medical Officer for the Fifth District of the Aylsham Union.

HOWELL, R. Edw., M.B., C.M.Edin., M.R.C.S.Eng., etc., appointed Honorary Surgeon to he North Ormesby Hospital, Middlesbrough-on-Tees.

MILLER, James, M.B., C.M.Aberd., appointed Medical Officer and Public Vaccinator for the Seghill District of the Tynemouth Union, *vice* Robert Anderson, M.D., resigned.

PARTRIDGE, Thomas, M.R.C.P.I., M.R.C.S.Eng., reappointed Medical Officer of Health for the Stroud Urban and Rural Districts.

RUTTER, F. B., M.D.Durh., B.S., F.R.C.S., appointed Medical Officer for the Workhouse and the No. 1 District of the Mere Union.

WALSH, Leslie H., M.B.Durh., appointed Honorary Assistant Physician to the Royal United Hospital, Bath, *vice* E. J. Cave, M.D.Lond.

WOODROOFE, R. P., L.R.C.S.I., L.A.H.Dub., appointed Medical Officer of Health to the Eccleshill Urban District Council.

WYLIE, D. S., M.B., Ch.B., appointed Junior Resident Medical Officer to the Manchester Children's Hospital.

DIARY FOR NEXT WEEK.

MONDAY.

Royal College of Surgeons, 5 P.M.—Professor C. Stewart: On Alteration of Generation and Recent Additions to the Museum. (Lecture IV.)

TUESDAY.

West End Hospital for Diseases of the Nervous System, 73, Welbeck Street, W., 4 P.M.—Dr. Harry Campbell: Disorders attended by Loss of Consciousness.

Chelsea Clinical Society, Parish Hall, Pavilion Road, Sloane Square, S.W., 8.30 P.M.—Dr. Penny: Adjourned discussion on paper read last meeting (Radical Cure of Hydrocele). Dr. Abrahams: Modern Views in Neurology. Dr. T. Vincent Dickinson: Remarks on Two Cases of Enteric Fever complicated by Rigors and Exacerbations of High Temperature. Dr. Nitch-Smith: The Use of Baths in Skin Diseases.

Royal College of Physicians of London, 5 P.M.—Dr. Samuel Gee: On the Nature of Pulmonary Emphysema (Lumleian Lecture II).

Pathological Society of London, 20, Hanover Square, W., 8.30 P.M.—Dr. W. P. Herringham: An account of Experiments upon the Toxicity of the Urine in search of the Cause of Uræmia (Illustrated). Dr. Radcliffe Crocker: Tumours from the Forehead. Dr. F. P. Weber: Diffuse Syphilitic Change in the Liver. Dr. Russell and Mr. Buzzard: Paramœcium Cysts in Human Liver. Dr, Norman Dalton: Two cases of Destruction of the Recurrent Laryngeal Nerve. Dr. Campbell Thomson: Melanotic Sarcoma. Card Specimens:—Dr. F. P. Weber: Lipoma of Kidney.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C., 3.30 P.M.—Dr. Risien Russell: Cerebral Tumours (Lantern Demonstration).

WEDNESDAY.

Hunterian Society, 8.30 P.M.—Mr. A. H. Tubby: Some cases illustrating the Surgery of the Stomach. Dr. R. Fortescue Fox: On some unusual Nervous Symptoms.

Evelina Hospital, S.E., 4.30 P.M.—Clinical Demonstration on Diseases o the Teeth in Children.

Royal College of Surgeons, 5 P.M.—Professor C. Stewart: On Alteration of Generation and Recent Additions to the Museum. (Lecture V.)

THURSDAY.

St. John's Hospital for Diseases of the Skin, 49, Leicester Square, 4.30 P.M.—Dr Morgan Dockrell: Cases of Rodent Ulcer and other Malignant Diseases of the Skin.

British Balneological and Climatological Society, 20, Hanover Square, W, 8.30 P.M.—Continuation of discussion on the Therapeutics of Heat, in which Dr. Ward Humphreys, Dr. Knowsley Sibley, Dr. Bain (Harrogate), Dr. Harry Campbell, Dr. Felkin, Dr. Alexander Haig, Dr. Smith (Harrogate), Dr. Bowen Davies (Llandrindod Wells), the President, and others will take part.

Royal College of Physicians of London, 5 P.M.—Dr. Samuel Gee: On the Nature of Asthma. (Lumleian Lecture III.)

London Temperance Hospital, 2 P.M.—Dr. Soltau Fenwick: Clinical and Pathological Demonstration to Senior Students.

British Gynæcological Society, 8.30 P.M.—Specimens will be shown by Mr. Jessett, Dr. Bantock, Dr. Lawrie, Mr. Ryall, Dr. R. T. Smith, and Dr. Oliver. Paper by Dr. James Oliver: Adenoma Universale of the Endometrium, infiltrating the Myometrium, in a Virgin.

FRIDAY.

Royal College of Surgeons, 5 P.M.—Professor C. Stewart: On Alteration of Generation and Recent Additions to the Museum. (Lecture VI.)

Clinical Society of London, 8.30 P.M.—The President (Mr. J. Langton): A case of Aneurysm of the Abdominal Aorta successfully treated by the Introduction of Silver Wire into the Sac. Mr. Rutherford Morison: Patients showing results of Stomach Surgery, with description of the Operations performed. Dr. Radcliffe Crocker: A case of Lymphangioma Tuberosum Multiplex. Mr. W. G. Spencer: Wound of a large Superficial Artery in which the Blood was flowing from the Trunk to the Thigh.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to insure insertion in the current issue.

BIRTHS.

ARMIT.—On March 11th, at the Lawn, St. Austell, the wife of H. W. Armit, M.R.C.S.Eng., L.R.C.P.Lond., of a daughter.

BENTLEY.—On February 25th, at Royton, the wife of W. L. Bentley, L.S.A., of a son.

COX.—On March 6th, at 58, High Street, Watford, the wife of Alfred E. Cox, M.R.C.S., L.R.C.P., of a son.

GOOD.—At Devon House, Prospect, Adelaide, South Australia, on February 6th, 1899, the wife of J. Ernest Good, M.B. (née Williams, of "Donhead," Wallington, Surrey) of twin daughters.

MARRIAGES.

BROWN—POPE.—On March 9th, at St. Margaret's, Westminster, by the Rev. William Springett, D.D., Henry Reynolds Brown, M.B., C.M., of Maldon, Essex, to Helen Evelyn Pope, of Latchingdon Rectory, Essex.

PAPILLON—PATON.—On February 14th, at St. Margaret's Church, Westminster, by the Rev. W. L. Paige Cox, Vicar of Rockferry and Rural Dean of Birkenhead, assisted by the Rev. Lennox Tindall, Vicar of Ore, Hastings, brother-in-law of the bridegroom, Godfrey Keppel Papillon, of the Manor House, Kingscliffe, Northamptonshire, son of Philip O. Papillon, J.P. and D.L. of Crowhurst Park, Sussex, and Lexden Manor, Essex, to Jessie Winifred, only daughter of J. Wilson Paton, M.D., Rockferry, Cheshire.

RODD—HARDY.—On March 7th, at St. Matthew's, Nottingham, by the Venerable Archdeacon Richardson, assisted by the Rev. Canon Ferris, Surgeon Montague Louis Bouchier Rodd, R.N., H.M. Dockyard, Devonport, son of the late R. Robinson Rodd, of East Stonehouse, Devon, to Flora Louise, daughter of the late John Hardy, of Colwick, Nottingham.

DEATHS.

DAMBRILL-DAVIES.—On February 26th, at his residence, Stonycroft Grange, Alderley Edge, W. R. Dambrill-Davies, Esq., M.R.C.S., Lieutenant-Colonel Volunteer and Army Medical Reserve.

HOWE.—On March 10th, at Bank House, Croston, Preston, Douglas Redfern, fourth and youngest son of Joseph Duncan Howe, aged 8 months.

KNIGHT.—At Rotherham, on March 12th, suddenly, Henry John, youngest son of the late Rev. Jas. Knight, M.A., late Rector of St. Paul's, Sheffield, aged 62 years.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

Cancer, Brompton (Free). *Attendances.*—Daily, 2. *Operations.*—Tu. W. F., 2.

Central London Ophthalmic. *Attendances.*—Daily, 1. *Operations.*—Daily.

Central London Throat, Nose, and Ear. *Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—I.p., Tu., 2.30; o.p., F., 2.

Charing Cross. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.45; Dental, M., 9; Throat and Ear, F., 9.30. *Operations.*—Th. F. S., 3.

Chelsea Hospital for Women. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

City Orthopædic. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.

East London Hospital for Children. *Operations.*—M. W. Th. F., 2.

Great Northern Central. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F., 2.30; Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

Guy's. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 2. *Operations.*—Tu. F., 1.30; (Ophthalmic), M., 1.30; Th., 2.

Hospital for Women, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

King's College. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, daily, 2; o.p., daily, 1.30; Eye, M. W. Th., 1.30; Ear, Th., 2.30; Throat, M., 1.30; F., 2; Dental, M. Th., 10; Skin, W., 1.30. *Operations.*—W. Th. F., 2.

London. *Attendances.*—Medical, daily, i.p., 2; o.p., 1.30; Surgical, daily, 1.30 and 2; Obstetric, M. Tu. Th. F., 2; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, W., 9; Skin, Th., 9; Dental, Tu., 9. *Operations.*—Daily, 2.

London Temperance. *Attendances.*—Medical, M. Tu. W. Th. F., 1.30; Surgical, M. Th., 1.30. *Operations.*—M. Th., 4.30.

London Throat, Great Portland Street. *Attendances.*—Daily, 2; Tu. F., 6. *Operations.*—Daily, 2.

Metropolitan. *Attendances.*—Medical and Surgical, daily, 2; S., 9; Obstetric, W., 2; Eye, W., 2; Throat and Ear, Th., 2; Dental, Tu. Th. S., 9. *Operations.*—Tu. W., 2.30; Th., 4.

Middlesex. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., 1.30; o.p., M., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu. F., 9; Skin, Tu., 4; Th., 9.30; Dental, M. F., 9.30; W., 9. *Operations.*—Daily, 1.30.

National Orthopædic. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

New Hospital for Women. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30. *Operations.*—Tu. F., 9.

North-West London. *Attendances.*—Medical, daily, exc. S., 2; S., 10; Surgical, daily, exc. W., 2; W., 10; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

Royal Ear, Frith Street. *Attendances.*—M. W. F., 3; Tu. F., 9.30 and 7.30. *Operations.*—Tu., 3.

Royal Eye, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

Royal Free. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, W., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

Royal London Ophthalmic. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

Royal Orthopædic. *Attendances.*—Daily, 2. *Operations.*—M., 2.

Royal Westminster Ophthalmic. *Attendances.*—Daily, 1. *Operations.*—Daily, 2

St. Bartholomew's. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. W. F., 2; o.p., W. S., 9; Eye, M. Tu. W. Th. S., 2; o.p., M. Tu., 9; W. S., 2.30; Ear, Tu. F. 2; Skin, Tu., 9; Larynx, Tu. F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9; Electrical, M. Tu. Th. F., 1.30. *Operations.*—Daily, 1.30; (Ophthalmic), Tu. F. 2; Abdominal Section for Ovariotomy, F., 2.

St. George's. *Attendances.*—Medical and Surgical, daily; i.p., 1; o.p., 12; Obstetric, i.p., Tu. F. 1.45; o.p., M. Tu., 2.30; Eye, W. S., 1.30; Ear, Tu., 2; Skin, W., 2.45; Throat, F., 2; Orthopædic, F., 12; Dental, M. Tu. F., S., 12. *Operations.*—Daily, 1; Ophthalmic, M., 1; Dental, Th., 9.

St. Mark's. *Attendances.*—Fistula and Diseases of the Rectum, males, S., 2; females, W., 9.30. *Operations.*—M., 9; Tu., 2.30.

St. Mary's. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 12.45; Obstetric, Tu., F., 1.45; o.p., M. Th., 1; Eye, Tu. F., 9; Ear, M. Th., 9; Throat, Tu. F., 3; Skin, M. Tu., 9; Dental, W. S., 9; Electro-Therapeutics, M. Th., 2.30; Children's Medical, Tu. F., 9. *Operations.*—M., 2.30; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

St. Peter's. *Attendances.*—M., 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

St. Thomas's. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F. 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Th., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Tu., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. F., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

Samaritan Free for Women and Children. *Attendances.*—Daily, 1.30. *Operations.*—Gynæcological, M., 2; W., 2.30.

Throat, Golden Square. *Attendances.*—Daily, 1.30; Tu. F., 6.30. *Operations.*—Daily, exc. M., 10.

University College. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. F., 1.30; Eye, M. W., 1.30; Ear, M. Th., 9; Skin, Tu. F., 2; Throat, M. Th., 9; Dental, Tu. F., 9.30. *Operations.*—Tu. W. Th., 2.

West London. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th., 2; Ear, Tu., 2; S., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, M. Th., 2; Skin, M. F., 2; Throat and Nose, Tu., 2; S., 10. *Operations.*—Daily, about 2.30; F., 10.

Westminster. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, Tu. F., 9.30; Ear, Tu., 1.30; Skin, W., 1.30; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications for the Current Week's Journal should reach the Office not Later than Midday on Wednesday. Telegrams can be Received on Thursday Morning.

Communications respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the Journal, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* British Medical Journal *alone, unless the contrary be stated.*

Authors desiring reprints of their articles published in the British Medical Journal are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

Correspondents who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

Correspondents not answered are requested to look at the Notices to Correspondents of the following week.

Manuscripts forwarded to the Office of this Journal cannot under any Circumstances be Returned.

In order to avoid delay, it is particularly requested that ALL letters on the editorial business of the Journal be addressed to the Editor at the Office of the Journal, and not at his private house.

Telegraphic Address.—The telegraphic address of the EDITOR of the British Medical Journal is *Aitiology, London*. The telegraphic address of the Manager of the British Medical Journal is *Articulate, London*.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are directed will be found under their respective headings.*

QUERIES.

Sapoo asks for advice in the treatment of dandruff in a healthy young woman, aged 23.

M.D. desires information as to the occurrence of desquamation after diphtheria.

M.B. asks whether puerperal eclampsia is as frequent in the purely vegetarian races as it is in the British Isles.

C. A. L. asks what the climate of Capri is like in July, August, September, and October. Could an Englishman live there during these months, and are mosquitos or other insects troublesome during this time?

ASTRINGENT INJECTIONS IN CHRONIC DYSENTERY.

Indian wishes to know how long he should continue the following injection for chronic dysentery: Glyc. acid. tannici, ʒss, to aq. Oij every other day. He has used it for three weeks with great benefit. Should the intervals be gradually lengthened?

THE D.P.H. EXAMINATION.

M.B.F. asks for an elementary work on meteorology and one on geology suitable to read for the D.P.H. examination.

⁂ It is not absolutely necessary to read any special work upon meteorology or geology for a diploma in public health as the standard works on public health deal with these subjects in their relation to public health. If, however, our correspondent wishes to consult special works he is recommended the following: *Meteorology*, by J. W. Moore (Rebman Publishing Company Limited); *Geology*, by Archibald Geikie (Macmillan and Co).

MEDICAL ADVERTISING.

S.S.M.S.—Our correspondent asks a series of questions respecting the conduct to be observed towards a medical practitioner who, ten years ago, on coming to the town in which he at present practises, advertised himself in the local newspapers, and still keeps two boards projecting out into the street announcing his hours of consultation, and especially that he gives advice and treatment in diseases of the eye.

⁂ 1. We cannot attempt to forecast the view the General Medical Council would take of this practitioner's conduct.

2. We think that a complaint should not be mainly based upon an offence committed ten years ago.

3. The notice board undoubtedly constitutes an advertisement, but so, for the matter of that, do brass plates, and it is for the General Medical Council to decide where the line should be drawn.

4 and 5. There seems to be great difference of opinion as to the circumstances which justify refusal to meet a duly-qualified practitioner in consultation. Some would make this the penalty for every breach of professional good manners, while others would meet anyone possessing a legal qualification. Some think that homœopaths should not be met in consultation, but the College of Physicians when appealed to lately refused to lay down such a rule. We think this particular case should be referred to the Council of the local Branch or to its Ethical Committee if one exists. Such a body would be fully informed of all the facts, and be in a position to decide in accordance with the local professional opinion needed to enforce the decision.

6. The lapse of time must undoubtedly go far to diminish the importance of the earlier offence.

7. If the practitioner avowed his regret for the past, his willingness to remove all present causes of offence, and would promise to abstain from similar actions in future, his colleagues would probably overlook the past.

ANSWERS.

Juvenis.—A reply to a similar query will be found in the British Medical Journal of April 16th, 1898, p. 1055.

Dr. T. Prichard Roberts of Stanleigh, St. Albans, writes to say that he will be glad to give particulars to any medical man who is thinking of using a motor tricycle for his country rounds.

A. D. P. D.—We know of no "recognised ethical rules" on the subject in question. Different medical men hold widely different views as to what should be advised in the cases mentioned; but we think all would agree that medical men should not supply the articles about which our correspondent inquires.

Alpha.—Marion Sims, in his *Clinical Notes on Uterine Surgery* (New York, 1886, p. 364 *et seq.*) states that he made a series of experiments in artificial impregnation, and in one case "actually saw conception follow." He gives a detailed account of the procedure, with figures of the syringe used in the operation. References to several other cases are given by Gould and Pyle in *Anomalies and Curiosities of Medicine*, London, 1897, p. 43 *et seq.*

L.D.S.—The dentist who does not hold a full medical qualification should confine himself strictly to the treatment of diseased conditions of the teeth themselves, and to the direct consequences of their diseased condition, so long as these consequences are of a dental nature. When extensive mischief does occur, the dentist who holds a full medical qualification will certainly, in justice to his patient, seek the advice of those to whom the treatment of such conditions is an everyday matter; and *a fortiori* the L.D.S. would be very wrong in undertaking the treatment, though, for the security of his patients, it is essential that he should be acquainted with possible contingencies, in order to be upon his guard against them, and in order to recognise the first signs of their occurrence.

C. D.—The proportion of medical men to population in Germany is, according to the *Reichsmedicinal-Kalender*, 4.93 per 10,000 for the whole empire. Taking Prussia alone it is 4.85, while in Bavaria it is 4.82, in Saxony 5.13, in Wurtemberg 4.09, in Baden 5.80, in Hesse 6.27, in Mecklenburg-Schwerin 4.62, in Alsace-Lorraine 4.67, in Hamburg 7.98, in Bremen 7.18, and in Lübeck 7.92. In Austria the proportion varies in the different cities and provinces. In Vienna there is 1 doctor to 691, in Baden 1 to 1,956, in Linz 1 to 1,070, in Salzburg 1 to 859, in Graz 1 to 604, in Klagenfurt 1 in 737, in Laibach 1 in 1,349, in Trieste 1 in 1,364, in Innsbruck 1 in 328, in Prague 1 in 452, in Brunn 1 in 832, in Troppau 1 in 1,024, in Lemberg 1 in 859, in Cracow 1 in 395, in Czernowitz 1 in 1,444. In Lower Austria the proportion is 1 in 1,129, in Upper Austria 1 in 4,000, in Krain 1 in 8,564, in Galicia 1 in 6,792, in the Bukowina 1 in 6,990. For the whole of France the proportion of doctors to population is 3.48 per 10,000. In the departments the proportion varies from 7.9 in that of the Seine to 1.4 in that of Morbihan. In Italy as a whole the proportion of doctors to population is 1 in 1,400; in Rome it is 1 in 500.

Prison Medical Service.

D. McC.—Application for appointments in the above should be made to Major E. G. Clayton, Secretary to the Prison Commission, Home Office, London, S.W. (*vide* Educational Number, August 27th, 1898, p. 568).

Sanatoria for the Open-air Treatment of Phthisis.

J.M.—Some particulars of these will be found in the BRITISH MEDICAL JOURNAL of September 3rd, 1898, p. 667: October 29th, 1898, p. 1383; November 19th, 1898, p, 1599; and January 28th, 1899, p. 247.

Chilblains.

L. M. D. writes that the correct prescription recommended by him for treatment of unbroken chilblains is as follows: ℞ Linimenti aconiti ʒiss; linimenti belladonnæ ʒiss; tincturæ opii ʒiij; olei amygdalæ amaræ, mv. vel olei lavandulæ mx; linimenti saponis ad ʒij. Misce, fiat linimentum de quo ʒss ad ʒj ad partem dolorosam applicetur, nocte maneque.

Treatment of Lachrymal Obstruction.

F.R.C.S. writes: "M.B.," in the BRITISH MEDICAL JOURNAL of March 11th, asks for suggestions as to the treatment of a refractory case of lachrymal obstruction. In my experience such cases, like those of Eustachian and tympanic catarrh, originate in nasal disease, inflammatory and obstructive. This should be looked for, and, if found, be suitably treated. M.B. does not state whether his patient is wearing a style: without one he is not likely to be cured. Irrigation of the tear duct with boric acid solution, and of the nose with weak borax solution would probably be required. If there be rhinitis without nasal obstruction, an oil spray of ichthyol in sweet almond oil—a drachm to the ounce—might prove very useful.

Anæsthetist's Fees.

ANÆSTHETIST.—It is usual for the practitioner who arranges for the operation to request the patient's friends to have a cheque ready for the anæsthetist at the time of the operation. When the surgeon makes the arrangement with the anæsthetist he usually obtains the anæsthetist's fee, but in some cases includes it in his own charges and pays when he is paid. It is usual for whoever selects the anæsthetist to hold himself responsible for his fee. Where the patient has specially engaged the anæsthetist he usually arranges fees directly. We cannot see that any invidious position can arise if the practitioner has told both the patient and the anæsthetist what fee is to be paid and then requests the patient to pay it.

Hospital Floors.

D. P. H. writes: In reply to "Infirmary" (BRITISH MEDICAL JOURNAL, March 11th) probably the best thing that can be done with ward floors after they have become worn and rough is to cover them with linoleum. (1) From a sanitary point of view it proves excellent; it is susceptible of a very fair polish with beeswax and turpentine or, if washed, "holds" but little water and soon dries. It is practically non-absorbing. (2) As regards accumulation of dust underneath, it will be necessary to prevent this by securing the linoleum at the sides. If the linoleum is to go right up to the walls, its edge should be glued down and secured by a strip of wood against the skirting and nailed through the linoleum to the floor. It should be remembered, however, that any crevices left, especially in such a situation below the heads of the beds, may harbour vermin. If the linoleum do not go to the wall the edge should be glued down and tacked down with fine small-headed tacks, and then protected by a bevelled slip of wood about ¼ inch in width; oak or other hard wood is best, but soft wood if properly secured lasts a very long time. (3) The length of time linoleum will wear under bedsteads depends, of course, upon the care shown by those who move the bedsteads, upon whether the bedsteads are moved with patients upon them, and upon the castors. Bedsteads for use upon linoleum should have a castor of some sort, preferably a large rubber-tired one; knobs or wooden feet will cut. The plan of having rubber feet at the bedstead foot and large rubber-tired castors at the head is a good one, the bedstead being moved with the foot lifted, which can quite easily be done by one person, even when it is occupied. The thick "cork linoleums," although they tend more effectually and for a longer time to hide the uneven surfaces of old floors, are more absorbent and mark easily, especially if bedsteads with ordinary castors are run over them. Experience leads me to believe that Staines linoleum of the very best quality pays best in the end, the ordinary brown colour should be chosen. Cheaper qualities shrink, and tear away where tacked. I have had good results with linoleum tacked down and protected by having a beading laid against the edge (as described above) but without glue or any such adhesive substance. I am not sure whether ordinary glue is best if any such substance be used. Even if projecting knots cannot be planed down before laying the linoleum—and this is a long and disheartening business, all nail heads should be carefully hammered in. Especial care should be paid to the places where traffic has been and will be most heavy. If "Infirmary," however, has labour at hand, wonderful results in the way of polishing and staining may be got with even moderately worn floors.

NOTES, LETTERS, Etc.

"Psychological Certificates."

A CORRESPONDENT draws our attention to the following notice, which appears on the card of a nursing institution: "We guarantee that the whole of our staff of mental nurses holds their psychological certificates, being the only one in the kingdom." Our correspondent thinks that this should be commended to the attention of *Punch*. He also asks what a psychological certificate is.

⁂ We presume that the certificate granted by the Medico-Psychological Association of Great Britain and Ireland is that intended to be indicated.

Lunacy and Borderland Cases.

DR. G. E. MOULD (Finsbury Park, N.) writes: By a stupid slip of the pen I expressed the opinion in my letter in the BRITISH MEDICAL JOURNAL of March 11th that any person who from certain causes commits suicide ought to be put in an asylum. May I be allowed to state that I do not want either the bodies of such persons to be buried in our grounds, or to be saddled with the charge of their disembodied and elusive spirits?

Home and Foreign Sanatoria for Consumptives.

M.D.LONDON mentions as an additional reason why home sanatoria for consumptives should be supported by British practitioners that a patient recently under his care appeared to have gained, during a residence in a foreign health resort, the impression that English physicians were incapable of diagnosing diseases of the lungs.

Influenza and Typhoid Fever.

DR. REGINALD F. YENCKEN (Ivydale Road, S.E.) writes: In reply to Dr. William Dobie's (Keighley) inquiry regarding influenza and typhoid fever, I have had lately three similar cases occurring in children. In one very acute case the onset was typical influenza, temperature 104.2° F. A rose-coloured spot on the abdomen appeared on the third day. The temperature fell on the fourth morning to normal, and rose to 101.4° F. in the evening, and up to 103° F. on the fifth evening; it fell to normal on the sixth morning; on the seventh evening it was 101.6° F., and was 100.0° F. for two following days. It then gradually came down, having a final rise to 100.0 F. on the fifteenth day. There were no special chest symptoms; there was slight diarrhœa for a few days. The tongue did not suggest typhoid fever; the spleen was not enlarged.

DR. F. OTLEY LOVELL (Adelaide Road, N.W.) writes: In the BRITISH MEDICAL JOURNAL of March 11th Dr. William Dobie, of Keighley, asks whether any of your readers have seen cases of influenza combined with typhoid. Recently I attended Mrs. B., aged 34, with influenza, her boy, aged 3½ years, having just died of typhoid and pneumonia at Hampstead Fever Hospital. She was well in about a week; her husband, aged 27, then developed influenza symptoms, with a very troublesome bronchial cough often seen in influenza but not in early typhoid. He also had diarrhœa, to which he said he was subject. In his case I suspected typhoid, and soon other symptoms—tympanites, etc.—made the diagnosis clear, and so he had these two diseases at the same time. In the third week his temperature declined one morning and all seemed favourable, but in a few hours intestinal hæmorrhage set in. With ice by the mouth and externally to the abdomen, brandy, and pil. plumbi c. opio this ceased and he rallied. The temperature again rose, and so remained as pneumonia (left) developed, to which he succumbed. About a week before he died his wife developed typhoid through nursing her husband and was removed to Fulham Hospital.

A Degree for Doubly-qualified Men.

MR. H. ELLIOT-BLAKE, Surgeon and Physician (Sloane Square, S.W.) writes: The portensions and the merits for the diplomate obtaining a doctorate degree I look upon as favourable at present. The object is to heighten the position and tone of the medical profession. It would confirm better and possibly more lengthened medical education. The highest reaches of the profession would not be interfered with, and the practicability pertains in most civilised countries except our own. It has lately been shown that in competitive examination with graduates for the services the diplomate is at the top. Dr. Kingston Fowler, in the BRITISH MEDICAL JOURNAL of December 18th, 1897, excellently indicated that for the London Conjoint Examination university graduates were inferior to the ordinary average pass standard of the diplomate—as 47.2 to 36 per cent. of failures. The BRITISH MEDICAL JOURNAL has often (December 14th, 1895; November 14th, 1896; June 4th, 1898) substantiated the view that licensees in Medicine are not legally annulled from calling themselves "Dr." so as to indicate their profession, and without pretence to M.D. of a particular university. In a discussion about this title in the *Morning Post* of August 23rd, 1895, I upheld this position. I have also written in support of this subject in other journals.

Judges and laymen often fail to toil to comprehend the quibbles of our varied designations, and as in other professions we would not spoil for a general standard description. The Hunter case showed that one who had a licence to evidently do what a physician does was not a physician. Now, if the Acts which govern our registration and qualification are to trap us into false positions, it is time to reflect and mark our detestation of this anomalous condition. The Medical Registration Act thus does not serve our purpose, nor indicate our status; it does not fail to chafe our feelings and susceptibilities, and it attacks and weakens our privileges and standing; it amounts to a tyranny which calls for cancellation and reform. The work that led to concocting the scheme of an examining university for London was a beginning to get more than the mere licence of the colleges, but it can only be truly representative of its name when it supplies London and its students with their wants. The origin and use of the old London and college licences were, of course, to protect or give a close practice to their holders round about London. Now, competition only jeopardises the keen conservative if not idle spirit of not granting distinct degrees on equal grounds to the more favoured degreed men from lesser towns who bid boldly to crowd in on the London diplomates. Advance and progress here sticks in an *impasse*.

In view of what I have written it seems to me the just claim for redress lies in looking to the colleges, or, in default, the ancient Society of Apothecaries, to seek power to confer a doctorate degree upon its diplomates; either by a further examination and charter of their own, or through effective representation in the proposed new University of London, or to vote and actively help in recasting the Registration Acts, so as to introduce a distinct title of "M.D.," or its university level, to all on the *Register*.

OXYGEN INHALATIONS IN THE TREATMENT OF ACUTE AND CHRONIC DISEASES OF THE LUNGS.

MR. GEORGE STOKER (Hertford Street, W.) writes: For years past I have used the method described in the BRITISH MEDICAL JOURNAL, p. 559. I have never experienced the slightest difficulty in regulating the supply: and if Dr. Walker will get the simple apparatus I suggest from Mr. Fellows, 49, Hertford Street, W., I feel sure he will overcome the difficulty he has experienced. As I explained, a very slight pressure on the gas bag is sufficient. I have never known oxygen to cause swelling of the posterior nares.

THE MEDICAL SOCIETY OF LONDON.

IN the report of the anniversary dinner which we gave last week (p. 618) the name of the gentleman who so brilliantly played the finale to the *Rheingold* should have been Dr. Plimmer, the Superintendent of the Bacteriological Department at St. Mary's Hospital Medical School.

ZONA BELOW THE KNEE.

DR. CHAS. J. HILL AITKEN (Bedford) writes: "In the lower limb the distribution of zoster presents this peculiarity, that it is almost invariably confined to the buttock and thigh. Mr. Hutchinson says that it never extends below the knee" (*Fagge's Medicine*, third edition). I saw a patient a little time ago who complained of neuralgic pains in the buttock, thigh, and leg on the left side. On examination I noted tenderness over one or two points in the buttock, over one of the upper sacral spinous processes, and marked tenderness in the muscles of the thigh, especially on the inner side high up. Above the knee in the lower third of the thigh were two patches of herpetic vesicles. Two days later the patient returned. Below the knee, covering the upper third of the leg, were scattered patches of herpetic vesicles. Along the line of the internal saphenous nerve were four patches on the following levels: (1) Middle of tibia; (2) lower third of tibia; (3) in front of inner ankle; and (4) side of foot over tarsal region. Of these patches (1) and (2) showed well-marked vesicles, (3) and (4) never passed the stage of papules. Beyond the fact of position the case presented nothing of interest.

⁂ We may refer our correspondent to a paper by Dr. R. B. Mahon "On the Occurrence of Zona below the Knee," published in the BRITISH MEDICAL JOURNAL of November 7th, 1896, p. 1379, and to a series of cases recorded in the JOURNAL of January 2nd, 1897, pp. 14-15.

"GREEN STOOLS IN ENTERIC FEVER AND DYSENTERY."

MR. FREDK. W. HIGGINSON, F.R.C.S.I., Superintendent of Gaols, North-West Provinces, India (Retired), writes: With reference to the memorandum of Captain Buchanan, M.B., I.M.S., on the above subject, I may say that I was always inclined to welcome the appearance of "green peasoup" stools when treating cases of acute dysentery with ipecacuanha, as I found that they brought with them great relief and sense of comfort to the patient, and associated them with the action of the drug on the congested portal system.

ALCOHOL AND LONGEVITY.

THE 34th annual report of the Sceptic Life Association shows that the considerably proportionate lower rate of mortality is still kept up among abstainers. The claims by death expected during the past year, as compared with those which actually occurred, in the General Section, a percentage of 88.55; and in the Temperance Section, of 47.87. That this was no unusual experience is seen from the record of the past 15 years. During that longer period the General Expectancy pointed to 1,658 deaths, with 1,332 actual deaths; while the Abstinent Expectancy was 926, with 522 actual deaths, a percentage of 56.37 actual deaths.

THE CHOICE OF AN ANÆSTHETIC.

MR. HERBERT J. PATERSON, F.R.C.S. (London, W.), writes: In the discussion on the choice of an anæsthetic at the Society of Anæsthetists no mention was made of the use of nitrous oxide gas and oxygen in prolonged operations. In the BRITISH MEDICAL JOURNAL of January 22nd, 1898, I ventured to call attention to the suitability of this anæsthetic for many of the operations of major as well as of minor surgery. Since that time I have felt more and more convinced that this mixture ought to, and eventually will, largely supersede the use of ether and in some cases even of chloroform. So far as one can judge at present there seems to be no limit to the time during which anæsthesia may be prolonged by this means, and since writing the article above referred to I have maintained anæsthesia by means of nitrous oxide gas and oxygen for over two hours with highly satisfactory results. From the point of view of the patient this anæsthetic seems to me to be ideal, being apparently, even if prolonged, safer than either chloroform or ether, pleasant to take, not tending to cause shock or collapse, leaving no after-effects whatsoever. It is true that the difficulties of administration are greater than with other anæsthetics, the chief trouble being the uncertainty of ensuring in every case an absolutely quiet anæsthesia; but this, I believe, is a defect which will eventually be removed.

LETTERS, COMMUNICATIONS, ETC., have been received from:

A Mr. J. Anderson, Seaton, Delawal; Anæsthetist; C. J. H. Aitken, M.B., Bedford; A. J. Anderson, M.B., Ashford; A. D. P. D.; A. B. C.; Association of Registered Medical Women, the Secretary of the, London; Messrs. Arnold and Sons, London. **B** Mr. J. H. Bellamy, Sheffield; Mr. A. L. Black, Belfast; B.Sc.; E. C. Baber, M.B., Brighton; Messrs. Burroughs, Wellcome and Co., London; Mr. W. F. Brook, Swansea; Dr. F. Booth, St. Annes-on-the-Sea; Mrs. C. Byrde, Edinburgh; J. W. Batterham, M.B., St. Leonard's-on-Sea; Dr. A. Bronner, Bradford; Mr. J. P. Bush, Clifton; Messrs. Baillière, Tindall, and Cox, London; Dr. F. C. Bryan, London; Mr. T. Benson, Stanley; Mr. M. R. J. Behrendt, Scunthorpe. **C** Professor Corfield, London; Country Practitioner; C. W. Cathcart, M.B., Edinburgh; Cremation Society of England, the Secretary of the, London; Dr. T. B. Costello, Tuam; Mr. H. S. Clement, Glasgow; Mr. R. Cross, London; J. W. Crerar, M.B., Maryport; H. M. Cooper, M.B., Hampton-on-Thames; Mr. S. A. Cood, Luton; Dr. A. Cooper, London; Dr. E. W. W. Carlier, Edinburgh; J. Carroll, M.B., Glasgow. **D** R. Daniel, M.B., Sorrento; D. P. H.; J. H. Drysdale, M.B., London; Dr. A. T. Davies, London; J. Dodd, M.B., Larkhall. **E** J. Edgar, M.B., Glasgow; Mr. F. Elvy, Eastbourne. **F** P. C. Fenwick, M.B., Christchurch, New Zealand; Mr. L. FitzPatrick, Tunbridge Wells; Mr. C. M. Fegen, Croydon; Mr. T. K. Freeman, London; A. M. Fraser, M.B., Southsea; Dr. S. G. Felce, London. **G** Sir J. A. Grant, Ottawa; Messrs. C. Griffin and Co., London; Dr. A. W. George, London; Dr. S. J. Gee, London; General Practitioner; Dr. H. T. Griffiths, London; Dr. A. E. Giles, London. **H** Dr. T. Harris, Manchester; Mr. H. N. Hardy, London; Dr. F. Hinds, Worthing; Dr. F. de H. Hall, London; Mr. R. H. Harland, Falmouth; Mr. W. J. Heslop, Manchester; Dr. S. L. Haynes, Malvern; Mr. W. T. Hayward, Adelaide; Miss K. M. Hunter, London; Dr. A. B. Hill, Birmingham; Mr. A. Hendricks, London; Mr. W. E. Hempson, London; Mr. W. J. H. Haslett, Sunbury-on-Thames; G. Halley, M.B., Dundee; Mr. T. P. Hugill, London; R. E. Howell, M.B., Middlesbrough. **I** Indian. **J** Mr. H. P. Job, Newark-on-Trent; Dr. J. S. Jameson, Manningtree. **K** J. King, M.B., Leigh; L. Knuthsen, M.B. Falmouth. **L** L. D. S.; W. J. Lindsay, M.B., London; J. D. Leigh, M.B., Scarborough; D. Love, M.B., Cumbernauld; Mr. F. O. Lovell, London; Mr. C. A. Lapthorn, Littlehampton; Dr. A. E. Larking, Folkestone; Lieutenant-Colonel R.A.M.C.; Dr. W. T. Law, London. **M** J. Miller, M.B., Seghill; Dr. J. M. Mason, Otaki, New Zealand; Mr. B. F. Meadows, Hastings; Member; Dr. W. Milligan, Manchester; Miss R. E. March, Emsworth; Mr. G. E. Mould, London; M.D.; Dr. G. R. Murray, Newcastle-on-Tyne; R. S. Miller, M.B., Slough; Mr. A. J. S. Maddison, London; Mr. H. W. Manley, London; Mr. S. B. Mason, Pontypool; Dr. J. Matthews, Blundellsands; Dr. H. J. Macevoy, London; Major R.A.M.C.; D. McCall, M.B., Wakefield; M.B.A.; M.B.; Dr. R. L. Meade-King, Taunton. **N** National Deposit Friendly Society, the Secretary of the, London; Dr. J. Norton, London; Mr. H. C. Nance, Norwich; J. H. Nicoll, M.B., Glasgow. **O** Professor A. Ogston, Aberdeen; Dr. I. Owen, London; One Who Knows. **P** C. H. R. Pentreath, M.B., Parkstone; Mr. J. F. Pink, London; Dr. Probyn-Williams, London; Mr. J. C. Prince, London; Mr. L. Pendleton, Brighton; Dr. T. H. F. Pullin, Sidmouth; Mr. F. G. Parsons, London; Mr. R. B. Popham, London; Mr. G. Pernet, London; Public Vaccinator; Miss R. Paget, London; Piscator. **R** Mr. G. Roper, Beccles; Mr. T. P. Roberts, St. Albans; Rural M.O.H.; Mr. H. M. Rainsford, London; Messrs. Reynolds and Branson, Leeds; Dr. R. Row, Bombay; R. C. P. **S** St. George's Hospital, Dean of, London; Dr. L. M. Scott, London; Mr. V. E. Sutcliffe, Chesterfield; Dr. S. Sunderland, London; Dr. C. R. B. Savory, Leeds; Spes; Mr. G. Stoker, London; Mr. P. L. Sclater, London; Mr. M. Scott, London; Sapoo; Mr. J. B. Sutton, London; Dr. S. H. Snell, Grays; S. Y. **T** Mr. W. T. Thomas, Liverpool; Dr. W. B. Thorne, London; T. A. P. **U** Ubique. **V** Messrs. Valentine and Schwarz, Leipzig; Mr. C. W. Vickers, Paignton; V. D. **W** Mr. E. W. Wallis, London Dr. W. G. Willoughby, Eastbourne; Mr. S. M. Watt, Bristol; Mr. W. S. Watson, London; Mr. H. S. Walker, Leeds. **Y** Mr. R. F. Yencken, London; etc.

BOOKS, ETC., RECEIVED.

Etude sur la Localisation des Corps Etrangers au Moyen des Rayons Roentgen contenant l'Exposé d'une Méthodé nouvelle. Par Dr. A. Sechehaye. Basle et Geneva: George and Cie. 1899.

Mediterranean Winter Resorts. By E. A. Reynolds-Ball, F.R.G.S. Fourth Edition. London: Kegan Paul, Trench, Trübner and Co. 1899. 6s.

A Textbook of Mental Diseases. By W. Bevan Lewis, L.R.C.P., M.R.C.S. Second Edition. London: Charles Griffin and Co. 1899. 30s.

A Practical Arithmetic. By J. Jackson. F.E.I.S. Fourth Edition. London: Sampson Low, Marston, and Co. 1899. 4s

The Treatment of Syphilis in the Public Services. By Major F. J. Lambkin, R.A.M.C. London: John Bale, Sons, and Danielsson. 1899. 1s.

Neurypnology, or the Rationale of Nervous Sleep. By J. Braid, M.R.C.S., C.M.W.S. New Edition. By A. E. Waite. London: George Redway. 1899. 10s. 6d.

A Textbook of Obstetrics. By B. C. Hirst. M.D. London: Rebman Publishing Co. 1899. 28s.

The American Yearbook of Medicine and Surgery. Under the General Editorial Charge of G. M. Gould, M.D. London: Rebman Publishing Co. 1899. 30s.

Twentieth Century Practice. Edited by T. L. Stedman, M.D. Vol. XVII. London: Sampson Low, Marston, and Co. 1899. 21s.

Les Régénérations d'Organes. Par Dr. P. Carnot. Paris: J. B. Baillière et Fils. 1899. Fr. 1.50.

Willing's Press Guide, 1899. London: James Willing, jun. 1s.

⁂ In forwarding books the publishers are requested to state the selling prices.

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OBSERVATIONS
ON
CREMATION
AND
ON DEATH REGISTRATION,

Being Extracts from a Speech delivered before the General Meeting of the Cremation Society.[*]

By Sir HENRY THOMPSON, Bart., F.R.C.S.,
Consulting Surgeon to University College Hospital, London; President of the Cremation Society.

Foundation and Early History of the Society.

The Cremation Society of England has now been in existence for twenty-five years, having been formed in March, 1874. I believe I may say it is one of the first societies, if not the first, formed in Europe for the purpose of promoting this mode of disposing of the dead. Modern cremation was actually practised some few years before, chiefly by way of experiment, in Italy, by Gorini, Polli, and Brunetti, the last named showing at the International Exhibition of Vienna in 1873 the entire residue obtained after burning a human body in a simple furnace out of doors. The product consisted of about 5 or 6 lbs. of dry ashes, mostly fragments of calcined bone. It was as a visitor there that I first saw the results of the process, and was much struck with the small weight and bulk as well as with the whiteness and purity of the ashes. The subject had interested me before this date as one which must before long claim attention as a probable resource in an increasing population like ours; and on returning home I made some experiments in London and one in Birmingham in cremating animals—a pig and some sheep—in furnaces of different kinds, obtaining ashes similar to those seen at Vienna. I wrote an article on the subject in the *Contemporary Review* of January 1st, 1874, advocating cremation and seriously urging its superiority on sanitary grounds to any form of burial. It aroused a good deal of attention, both in this country and abroad, and led to much correspondence and discussion, and, indeed, to very strong opposition in certain quarters for the first few years.

A small number of men, distinguished in various ways, but all desiring to consider the subject further, met for the purpose at my house on January 13th. After subsequent meetings we agreed to certain rules, constituting a society with the object of ascertaining whether the practice of cremation was legal in this country, and what was the best method of performing it. This was in March; not, however, until April 29th was the Council formally chosen by a meeting of members called for the purpose.

We first took the opinions of two leading counsel and received from each a statement that cremation was not an illegal act if no nuisance were caused thereby. Early in 1875 the Council subscribed a sufficient sum to purchase a plot of freehold land, in the hope of being able before long to build a crematorium, the estimate for which and other buildings necessary was about £3,500. Soon afterwards we approached the directors of the Great Northern Cemetery, desiring to make terms with them to construct a crematorium there, as being a near and appropriate site. All preliminaries were settled to the satisfaction of both parties, but the bishop within whose jurisdiction the property lay forbade the performance of cremation there.

We at length acquired in the summer of 1876 an acre of freehold land near to the Woking Cemetery. We had originally decided to employ a "Siemens" furnace, as probably the most efficient, but being now compelled to occupy a locality distant from London, the Council decided to forego the use of a costly apparatus requiring skilled management, and to adopt the Gorini system. Accordingly we invited Professor Gorini to visit this country and superintend the erection of the new crematorium. He consented, and the plan was carried out in connection with our secretary, Mr. Eassie, himself a sanitary engineer. It was finished at the further cost of about £600 in March, 1879, and before Professor Gorini left, a horse was perfectly cremated in presence of the Council, without smoke from the chimney or offence of any kind. Meanwhile a considerable portion of all costs thus far incurred had been subscribed, chiefly by the members of the Council and their friends.

About the same time (the spring of 1879) we received an intimation from the Home Office that the process of cremation for human bodies would be prohibited. We asked for an interview (by deputation) of the President and two other members of the Council with the Home Secretary, which was granted; and, on learning his views, we found it necessary to give an assurance that no cremation should take place without leave first obtained from the Minister. The function of the Society was thus for the present limited to the diffusing of information respecting the subject among the general public. In August, 1880, the late Sir Spencer Wells made the subject a prominent one at the annual meeting of the British Medical Association, and a large proportion of the most influential members present signed a strong declaration in its favour to be sent to the Home Office. Several small works were written and circulated, while articles in various journals and lectures throughout the country made the subject popular.

In the year 1882 the Council was requested by the late Captain Hanham, Blandford, Dorset, to cremate two relatives who left him express instructions to do so. The Home Secretary refused leave, and the Society were compelled to decline. Captain Hanham at once built a small furnace on his estate and effected his object successfully. He himself, dying only a year later, was at his wish cremated there also. This, as well as the foregoing proceedings, was carried out under the supervision of Mr. J. C. Swinburne-Hanham, our present able and indefatigable honorary secretary. The Government took no notice.

In 1883 the body of a child was, contrary to the directions of the coroner, cremated in Wales by its father, an act which made him the subject of legal proceedings. The question was finally settled in 1884 by Sir James Stephen's well-known judgment, declaring cremation to be legal if no nuisance was caused thereby to others. Upon this, the Council of our Society declared themselves absolved from their promise to the Home Office, and publicly offered to use their crematorium for those who desired to adopt the method, laying down strict rules for a careful inquiry into the cause of death in the case of every applicant.

In 1884 Sir Charles Cameron, M.P. for Glasgow, brought a Bill into the House of Commons to regulate the procedure of burials as well as of cremation, etc., and was supported by Dr. Farquharson, M.P, for Aberdeen, and by Sir Lyon (afterwards Lord) Playfair—all members of the Council. It was opposed by the Government and also by the leader of the Opposition, notwithstanding which no fewer than 79 members voted for the second reading to 149 against.

In the following year (1885), on March 26th, the first cremation of a human body took place in our building at Woking. The result was completely successful in every detail. Two other cremations took place in this year, making three for the year 1885, the tenth year of the Society's existence.

It was now obviously necessary to provide a place of assembly for mourners and and others, and, if possible, also a chapel of moderate size adapted for the performance of funeral service. Hence in 1888 a special appeal was made to the public, to which the Duke of Westminster and the Duke of Bedford (the ninth Duke) each subscribed 100 guineas. At the same time arrangements were made for erecting, in close proximity to the crematorium, a suitable structure in the style of English Gothic of the thirteenth century. A smaller crematorium was also to be built on the Society's property, connected with the original one and served by the same chimney shaft, for the special use of the Duke of Bedford, at his desire and cost. About £1,500 to £1,600 (including £500 from the distinguished engineer, James Nasmyth) were received in response to the appeal. But this sum was far less than our requirements. At this crisis the Duke of Bedford most generously offered large additional donations as they were required, amounting in all to about £4,000, in order to acquire a portion of adjacent land and to complete the proposed buildings, as well as other structures necessary, in the best manner as regards durability and harmony in style.

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[*] A brief report of the meeting was published in the British Medical Journal of March 18th, p. 708.

The smaller crematorium was used for the first time on January 18th, 1891, on the occasion of the death of our much lamented friend and benefactor; and it now remains in possession of the family for a long term of years to come. I must be permitted to add that the Society, as well as the cause of cremation, owe a debt of gratitude to the Duke of Bedford which can never be forgotten. Indeed, it is impossible to exaggerate the value and importance of his interest in our work, and of his unceasing kindness in promoting it at this early period of its history.

I shall now return to the date of our first cremation in 1885, and record the number cremated for each year to the present time:

Record of Cremations performed at Woking.

Year.	Number of Bodies Burnt.
1885	3
1886	10
1887	13
1888	28
1889	46
1890	54
1891	99
1892	104
1893	101
1894	125
1895	150
1896	137
1897	173
1898	240
Total ...	1,283

DEFECTS IN THE PRESENT SYSTEM OF DEATH REGISTRATION.

Thus it will be seen that a very gradual progress marked the first seven or eight years following 1885. Moreover, it had become now a settled policy on the part of the Council not to adopt active propagandist methods and thus court opposition, but to allow the subject to become familiar by degrees to the general public. This was desirable for more than one good reason, a very important one at all events—namely, the very defective system existing in this country for ascertaining the fact that death has taken place, as well as its cause in every case, and in the registration thereof. It was then known to many, and has now been declared on the highest authority, that the system adopted at the present day for the entire United Kingdom offers large facilities for the exercise of criminal poisoning. It was the existence of this formidable defect which led to a strong conviction on the part of the Council that their primary duty was to agitate for the reform of this system. Accordingly they agreed about 1891-92 to devote their time and energy henceforth to this task.

On January 6th, 1893, the Secretary of State for the Home Department, Mr. Asquith, received a deputation, introduced by the Duke of Westminster, relative to the appointment of a "Minister of Health," and other subjects. When the subject named was disposed of it was arranged that another—namely, "defects in the present system of death registration," should be introduced by your President. I showed that of the half-million of deaths or more which occur yearly in England and Wales, the Registrar-General himself reported that in no less than 7½ per cent. of this large total the causes were unknown and unrecorded, while in Scotland the defective proportion was much larger. I adduced evidence to show the necessity for ascertaining not only the cause of death in every case if possible, but for doing so while the body was within reach, and before marked putrefactive changes occur; and that investigation was therefore required before burial as well as before cremation. And I contrasted the procedure here with the far more stringent inquiry which, in obedience to this view, had long been adopted in every case in Paris and other large Continental cities. Mr. Asquith fully recognised the importance of the matter, and promised to make inquiries respecting it. Hence during the next session of Parliament he appointed a Select Committee of the House of Commons "to inquire into the sufficiency of the existing law as to the disposal of the dead"......"and especially for detecting the causes of death due to poison, violence, and criminal neglect." Sir Walter Foster, of the Local Government Board, was the President. Numerous witnesses of various experience and opinions were examined, and after a prolonged inquiry and careful consideration of the evidence, a full report and conclusions drawn therefrom were unanimously agreed to, and published as a Blue Book in the autumn of 1893.[1] The official report at the outset states that the Committee are much impressed with the serious possibilities implied in a system which permits death and burial to take place without the production of satisfactory evidence of the cause of death," and declares that "the existing procedure plays into the hands of the criminal classes." (Page 10.) Again, in considering cremation they state:

> Your Committee are of opinion that with the precautions adopted in connection with cremation, as carried out by the Cremation Society, there is little probability that cases of crime would escape detection, but inasmuch as these precautions are purely voluntary your Committee consider that in the interests of public safety such regulations should be enforced by law. (Page 22.)

Such is the very remarkable and most complete endorsement which the labours of the Cremation Society have received as the outcome of this judicial inquiry by the Government. Henceforth it can be only a question of time for the realisation of our hopes and justified demands for an efficient inquiry enforced by law in every case of death; and then the general employment of cremation may safely follow.

In August, 1894, I brought the subject of "death registration," together with that of cremation, before the annual meeting of the British Medical Association held that year at Bristol, offering an epitome of the results obtained by the above-named inquiry. After full discussion of the subject, a unanimous vote was given in favour of the suggestions made by the House of Commons Committee, and of the employment of cremation in connection therewith.

On November 14th following it fell to my lot to take part in a second deputation to Mr. Asquith, and to ask that the recommendations of the Committee should be carried out. He stated that the business really belonged to the Department of the Local Government Board, and we learned that it was already dealing with the question in the hope of a satisfactory solution. There is little doubt that had the Government of that day continued in office a Bill would soon have been introduced to organise the new procedure so much required. But political changes then impending soon after resulted in the formation of a new Government, and other questions came to the front, while the disturbed conditions of foreign relations have since presented consideration of the present among other needful social improvements. Let us hope that with a clearing horizon in regard of external politics, a time may speedily come in which the subject can be once more, and once for all, submitted to the Government of the day with an earnest demand that the recommendations of the House of Commons Committee should be embodied and enforced by an Act of Parliament.

[Sir Henry Thompson then observed that a growing feeling in favour of cremation had been gradually manifested throughout the country. He referred to the erection of crematoria at Manchester (1893), Glasgow (1894), and Liverpool (1896), and mentioned that at Hull a handsome building is now in progress for the purpose of cremation, the first in this country originated and completed by a municipal corporation. He added that the ordinary burial authorities of the country, that is, the burial boards, have no legal power to expend the rates to provide for cremation. The municipal corporations which are moving in the matter have to acquire parliamentary powers for the purpose.]

A FORECAST.

I shall devote, he continued, only a few lines to a forecast of what—after 25 years of constant and observant experience of the many details of the procedure connected with cremation—appear to me the most important needs and duties of the future. During the last 14 years—namely, from the very first case of cremation at Woking in 1885, until about six or eight months ago—I have charged myself with the duty of personally investigating the information supplied in the case of every applicant, excepting only during my absence from town for an annual holiday. In these intervals I have always been replaced by my friend, Mr. Herring, who had long followed with me the system adopted. In a number of cases the evidence offered respecting the cause of death is insufficient and further inquiry must be made or opportunity for further examination sought. This important duty will be henceforth performed by him. But the Council has thought it desirable, with the yearly increasing demand, to retain the services also of a skilled pathologist, as a consulting officer in cases of unusual doubt or difficulty, and for the purpose of making necropsies under peculiar circumstances when required. Dr. Sidney Martin, Professor of Pathology in University College, has accepted this office, and we are happy to be able to secure the services of so high an authority when required. I may also add that I have made it a rule, whenever the circumstances permit, to avail myself of the coroner's court, and am always glad to shift the responsibility of the inquiry to the local coroner in all needful cases.

But after the most complete arrangements have been made for the management of our own institution, the first and most important object of our policy, as already explained, is the reform of the registration of the death system: and it is still the most pressing one before us.

The second is the construction at no distant period, of a new and completely-equipped crematorium, probably on the "Siemens" principle, in the near neighbourhood of London, and possibly by means of a limited liability company.

The third is the consideration by the Local Government Board of the question whether cremation, while of course remaining optional for all in every ordinary case of death, should not sooner or later become imperative in all cases of death caused by contagious disease in its worst forms, such as small-pox, scarlet fever, diphtheria, and malignant cholera at least—at all events in the chief centres of population, the cities and large towns of the United Kingdom. And for these a question might arise as to the employment of crematoria set apart for the purpose, provided with special antiseptic precautions to ensure freedom from danger to attendants or others frequenting them. This may be secured simply and easily by well-known practical arrangements; and of course with the same attention to decorum and to religious rites as at the existing crematoria. I advocated this mode of dealing with all zymotic diseases in a paper read at at a large meeting of the International Congress of Hygiene, held in London in 1891, and a resolution strongly approving the proposal was carried in a large meeting of sanitary experts and medical officers of health.

REFERENCE.

[1] Reports on Death Certification, 1893, Eyre and Spottiswoode, London (373, 472).

THE LUMLEIAN LECTURES
ON
BRONCHITIS, PULMONARY EMPHYSEMA, AND ASTHMA.

Delivered before the Royal College of Physicians of London.

By SAMUEL GEE, M.D.Lond.,
Fellow of the College and Physician to St. Bartholomew's Hospital.

LECTURE II.

ON THE NATURE OF PULMONARY EMPHYSEMA.

In 1764 Dr. William Watson (who afterwards became a Fellow of our College and a knight) read before the Royal Society "an account of what appeared on opening the body of an asthmatic person." He described what he called an emphysematous state of the lungs," a condition which he deemed to be due to an extravasation" of air into the lungs from the "bronchia and vesicular substance," and what was no doubt vesicular emphysema of the lungs in the sense which we give to that phrase. Pulmonary emphysema has been known in one of its results—namely, the barrel-shaped chest from the time of the ancient Greeks. The lesion of the lungs themselves was first noted by Valsalva and Ruysch in the earlier part of the last century. However, Laënnec was not far from the truth when in the first edition of his great work published in 1819 he said that "emphysema of the lungs, such as he had described it, seemed to him to be a disease hitherto unknown."

It is universally agreed that the note of pulmonary emphysema is to be found in enlarged capacity of the acini and lobules of the lungs beyond what can be produced in health by the deepest inspiration. This change in the structure of the lung, the anatomical characteristic of emphysema, is pretty thoroughly known; but when we come to inquire into the process which leads to emphysema the case is very different. For we cannot know the process in the same way as we know the result; we cannot watch the lungs becoming emphysematous; we can only argue about the process. Deprived of the intuition of sense, the light of Nature, we must follow the light of reason, and beware lest it prove to be *ignis fatuus*. And unfortunately we can get no help from experimental pathology; we cannot set up progressive emphysema in the lower animals and mark its stages in the same manner as we can set up inflammation. Hence the many theories of emphysema and long discussions which, however, do no dishearten me from attempting the difficult topic once more; my only fear is lest I should weary you.

ACUTE EMPHYSEMA.

The emphysematous process, like all Nature's processes, may be assumed to be complex, and we shall do well to begin by endeavouring to resolve it into its simplest elements. Nature itself helps us much by offering to our consideration a form of emphysema which certainly is simpler than ordinary emphysema and which seems to consist in a mere over-distension of the lung. I allude to the acute emphysema first adequately described by Fauvel in his essay upon capillary bronchitis. You know the condition—both lungs distended with air, as if insufflated by the fullest possible inspiration, but some parts of the lung distended more than this, emphysematous, in short, and especially so in the upper lobes and their anterior portions. You know that this acute emphysema is especially met with in young children who have died from suffocating capillary bronchitis or from diphtheritic croup. Many of these children will have enjoyed the most perfect health until they are attacked by the bronchitis or croup, so that there is no question in them of any preceding disease of the lungs. The suffocating bronchitis will often prove fatal within a week from its beginning; croup will kill in a still shorter time, and there is a disease, very much less common, namely, hæmorrhage into the air passages, which may suffocate in a few minutes, acute emphysema being found *post mortem* in all cases.

Let us turn our attention to croup in the first place, inasmuch as it is often entirely free from one condition which might complicate the question, namely, collapse of the lung. For although fatal croup is usually associated with abundant puriform secretion into the small air-tubes of the lungs, yet in spite of this form of bronchitis there is sometimes no collapse at all even when the lungs have become highly emphysematous, so that collapse when present can be no more than somewhat contributory to the emphysema. In other words, the emphysema is but slightly, if at all, compensatory to any collapse. John Cheyne, in his book on the pathology of the laryngeal and bronchial mucous membrane published in 1809, frequently alludes to the emphysema and puriform catarrh of croup. For example, he says: "The lungs were so filled that they did not recede in the least when the thorax was opened; every surface which was cut poured out this puriform fluid from several points."

Setting collapse aside, the conceivable causes of acute emphysema are two, namely, dyspnœa and cough; that is to say, the movements of dyspnœa and of cough, not overlooking the fact that they usually concur. Here also the question is simpler in the case of group. In capillary bronchitis both dyspnœa and cough are great, and therefore the question of the associated emphysema is complicated. But in croup the dyspnœa is extreme, while the cough is insignificant, or even absent, so that it may be left out of consideration, and all this in cases affording a high degree of insufflation and emphysema of the lungs.

Our analysis thus leads us to infer that dyspnœa is the cause of acute emphysema. Now, the movements of dyspnœa are forced movements, inspiratory or expiratory, or both. But before proceeding further with this part of our subject let us cast a short glance upon the movements of breathing in general.

From the earliest times the diaphragm has been regarded as the essential agent of respiration—we may say of respiration, and not of inspiration only, because expiration is little more than a result of inspiration. Galen was the first to show that most of the intercostal muscles were ordinary muscles of inspiration. Guided by the researches of Duchenne we may disregard the exceptions which Galen made, and we may say that all the intercostals act simultaneously, and are employed in ordinary quiet inspiration. They not only raise the ribs, but keep the intercostal spaces tight during the descent of the diaphragm. When the intercostal muscles are paralysed but the diaphragm is not, the upper two-thirds of the chest are motionless.

The chest may be roughly compared to a bow, inspiration to a bow when pulled upon by an archer, and expiration is little more than the elastic recoil of the bow when the archer lets go the string. But the inspiratory muscles do not altogether let go when expiration begins, they continue to act as moderators of the expiratory movements, and hence expiration is more gradual than it would be were it a mere elastic recoil. In short, the muscular contractions of expiration are persisting contractions of inspiratory muscles unless the expiration be forced, and then extraordinary muscles of expiration come into play.

Physiologists seem to be agreed that although the outward pressure of the air at the mouth during expiration is greater than the pressure inwards during inspiration, yet the forces concerned in inspiration are decidedly much greater than those of expiration. These propositions at first sight seem to be discrepant, but we are not called upon here to explain the apparent discrepancy—we will only remark that they indicate a provision in the human economy for repressing the greater powers of inspiration. Let us especially note that the elastic retraction of healthy lung is not satisfied by the deepest expiration, and that the lungs are provided with a considerable reserve of elasticity, so necessary is it to maintain sufficient deflation of the lungs, or in other words to keep them sufficiently empty of air. For if there be insufficient efflation there must be insufficient inflation

In the forced breathing of healthy persons there is the same disproportion between the powers of the antagonist movements. But physiological experiments relate to a few forced respirations studied in a healthy subject. The forced breathing of disease introduces a new set of conditions and requires that we proceed to an analysis. The extraordinary muscles of inspiration are chiefly three: the sterno-mastoids, the scaleni, and the upper third of the trapezii. These muscles can be seen contracting during inspiratory dyspnœa. Other muscles there are which assist to some degree, but to enumerate them is not necessary. These extraordinary muscles act by raising the upper part of the chest and fixing it so as to enable the ordinary muscles of inspiration to act with extraordinary power. The fixity of the clavicles and first ribs enables the intercostals to contract with their greatest power, and to elongate the chest in a direction upwards at the same time that the diaphragm elongates it downwards. Observation of the living patient shows us that forced inspiration tells chiefly upon the front part of the thorax above Harrison's furrow.

The extraordinary muscles of expiration affect quite another part of the chest. In a patient coughing violently we see the muscles of the abdominal walls, especially the recti, contracting so as to straighten and depress the front part of the chest below Harrison's furrow. The diaphragm being relaxed is necessarily driven upwards. If the largest air tubes be obstructed by mucus or by partial closure of the glottis—as in the case supposed of coughing—it is very instructive to see how forced expiration dilates exactly the same part of the chest as that which is dilated by forced inspiration. Hence in diseases attended by cough or dyspnœa the unfortunate upper and front part of the thorax has no chance—forced inspiration and forced expiration combine to keep it distended. Nature provides that the result of ordinary inspiration shall be fully countervailed by expiration; Nature provides extraordinary muscles to reduce the distension of the lower part of the chest caused by forced contraction of the diaphragm, but Nature provides no extraordinary means by which the injurious effects of forced inspiration upon the upper part of the chest can be repaired by forced expiration. On the contrary, both movements concur to the same end, or, in other words, no muscular contractions can reduce over-distension of the upper chest, and if the inherent elasticity of the lungs and rib cannot reduce it nothing can.

Before leaving this topic, let us repeat that we must be careful to distinguish between the voluntary forced breathing of a healthy person and the involuntary, instinctive, automatic forced breathing which attends dyspnœa. Voluntary excessive movements soon fatigue, but automatic breathing is not attended by a feeling of fatigue, and so the extraordinary movements of dyspnœa can be continuously kept up for hours, days, or weeks—may we not say, indeed, for months or years? Moreover, let us note that this remark applies to the movements of breathing only, but by no means to those of cough; cough must be intermitting.

We will now return to the consideration of the acute emphysema of croup. In the living patient a very few hours of dyspnœa suffice to produce a marked bulging on the front of the chest above Harrison's sulcus. After the patient's death we find that the corresponding part of lung is the seat of a high degree of emphysema. The whole lungs are insufflated or distended with air, but nowhere is the emphysema so marked as in the situation just indicated. This is the very part of the chest which is most expanded by forced inspiration, and which is expanded by forced expiration also in case of cough, but expanded, let us note, by a different mechanism in the two cases. In deep inspiration this part of the chest wall is expanded in the first instance and the expansion of lung follows, whereas in forced expiration and in cough this part of lung is expanded in the first instance and it drives the chest wall outwards. It will be hardly necessary to recall to your memory the mechanism by which cough produces emphysema here, according to the doctrine elaborated by our former distinguished President, Sir William Jenner. The glottis is closed in preparation for a cough or for any great effort. Forcible expiration follows; certain parts of lung are compressed from which air escapes, but not being able to pass the glottis it is driven into those parts of lung which are not compressed, especially the upper anterior parts so often mentioned. Expiration under these conditions can doubtless produce emphysema in certain places, but in the case of croup inspiration is by far the more potent agent, being incessant in its operation, whereas cough is only occasional, and sometimes there is no cough at all. Moreover, forced expiration cannot explain the highly insufflated state of the whole of both lungs, for the distension caused by expiration must be partial.

We are yet far from having reached a full understanding of the mechanics of acute emphysema. We have arrived at an extraordinary expansion of part of the lungs, but the essential cause of the expansion lies deeper than this. You will understand what I mean when I ask this question, Why does the expansion remain permanent? And I think that from what has gone before the answer will readily come, Because Nature has omitted to provide the thorax with muscles by means of which this acute emphysema could be prevented or overcome. The only means which Nature has provided towards this end is the elasticity of the lungs and ribs, especially of the lungs, and this means, unfortunately, is inadequate. It is vain to object that physiological experiments prove forced expiration to be more powerful than forced inspiration, because these experiments deal only with the lungs as a whole, and cannot tell us anything about the respiratory powers of different parts of the lungs, which is the very thing we want to know. Can it be thought for a moment that the expiratory power of the upper part of the chest is greater than the inspiratory? Certainly not.

The elasticity of the lungs, then, falls sadly short of what is required of it during an emergency of dyspnœa. How is this? Either the elasticity is defective absolutely or it is defective only in respect of the increased demand made upon it, and probably both conditions concur; that is to say, the elasticity is called upon to do more than usual at the very time when it is itself weakened and able to do less. In the first place, this unusual demand upon the pulmonary elastic recoil is due to the abnormal secretions in the air passages. and the expired air has to overcome the resistance of these secretions in addition to what is the only obstacle to expiration met with in health—namely, the atmospheric pressure. The elasticity has too small a reserve; it is equal to overcome the atmospheric pressure, but not much more. Inspiration, being the more important motor of the upper lung, can draw air past the obstructing secretions, of which air expiration can expel only a portion, and thus much air comes to be imprisoned in the parts which are, or which become, emphysematous. In the second place, the elasticity of the lung is probably damaged. We have already compared normal inspiration to drawing a bow, and it does not seem a very far-fetched similitude to compare the result of an enormous number of forced inspirations to a bow which has been overdrawn, bent, and crippled. The elastic recoil of the lungs is weakened. So far as I know no careful microscopic examination of the pulmonary tissues in acute emphysema has ever been made.

And now to sum up the conclusions at which we have arrived. The feeble expiratory power of certain portions of the chest is a condition which predisposes the underlying portions of lung to suffer from acute emphysema in cases of croup. Given this predisposition, the aforesaid portions of lung become overdistended in consequence of forced inspiration or of forced expiration, or of both.

I have purposely avoided interrupting the chain of reasoning by allusion to the opinions of others, for it seems to me that the argument stands in no need of any such support, whilst as to opinions which are more or less contrary I hope you will agree with me that the limited time allotted to these lectures can be better spent than by engaging in polemics.

The acute emphysema of suffocating bronchitis will now be easily understood. This affection is referred to by Aurelian in his chapter upon peripneumonia, where he says that as the disease gets worse the chest becomes more protuberant. The causes of the emphysema are the same as in croup, but with this addition, that in peripneumonic catarrh more or less collapse of the lung is common, and tends to aggravate the distension of the rest of the lung. according to the mechanism explained by Sir W. T. Gairdner.

CHRONIC EMPHYSEMA.

Acute emphysema is a condition which often ends in complete recovery. Chronic emphysema, on the contrary, is a progressive disease. Although it was first adequately described by Laënnec, it had engaged the attention of physicians long before his day, not, however, as a lesion found upon the *post-mortem* table, but as a disease of the living subject. Being looked at merely from the clinical point of view, emphysema was usually called asthma; for example, Heberden, speaking of what must have been chronic bronchitis and emphysema, says: "When a constant cough has afflicted people in youth and adult life, in their old age they become asthmatic."

Laënnec tells us that there was a time when he thought emphysema to be a very rare disease, but that afterwards he became convinced that it is common enough. Virchow supplies figures intended to show that emphysema is not common. In ten years only 0.3 per cent. of all patients admitted into the Charité Hospital of Berlin were admitted on account of emphysema; in only 0.6 to 0.7 per cent. of the bodies examined *post mortem* was emphysema the chief lesion found, and in only 5.5 per cent. was there any emphysema at all. The statistics of St. Bartholomew's Hospital yield these figures: in four years (1894-1897) 9,928 patients were admitted into the medical wards; 165, or 1.66 per cent., were believed to be emphysematous; 1,363 *post-mortem* examinations were made, and emphysema was found in 154 bodies, or in 11.3 per cent. Our figures justify Laënnec's opinion; a lesion found in 11 per cent. of persons dying in the medical wards of a hospital cannot be called uncommon.

The anatomical sign of chronic emphysema consists in actual loss or atrophy of the lung tissues, yet many pathologists of the first rank have expressed a different opinion—namely, that there is a hypertrophy of lung tissue, either a hypertrophy preceding the atrophy or a local hypertrophy simultaneous with local atrophy. Laënnec himself thought it highly probable that emphysema is usually accompanied by a certain degree of hypertrophy, finding that the lung feels firmer and less flexible when pinched between the fingers. Yet he recognised the associated destruction of tissue, as, indeed, such a man could not help doing when he examined emphysematous lungs in the manner which he recommends—namely, by inflating and drying them. Laënnec's contemporary, Louis, was less sagacious: he admits no exception to his universal affirmation that emphysema implies increase or hypertrophy of lung tissue. When we ask how Louis detected the pulmonary hypertrophy we get no clear information; he seems to have done no more than adopt Laënnec's methods and to have examined the lung by pinching it and by drying it. These doctrines are not altogether incorrect, only we must express them a little more precisely. In the first place, emphysema in its earlier stages does not affect the whole lung or does not affect it equally. And next, the great and extensive atrophy of tissue cannot be gainsaid in the case of emphysema in its later stages, the lungs being examined according to Laënnec's method; they feel as he says, no longer firm and inflexible, but soft and downy, and the loss of tissue is most obvious to the eye. Induration is a better name than hypertrophy to give to the abnormal firmness and rigidity of the alveolar walls, and this induration is always very partial, and found only in the earlier stage of the disease.

The microscope has not yet disclosed any primitive tissue changes apart from mere atrophy, if such changes there be; and I need not refer to hypotheses such as that of Rainey, who deemed the primary lesion of emphysema to consist in fatty degeneration of the alveolar walls, or that of Villemin, who described a sort of granulation of the connective tissue which supports the capillary network of the lungs, for in all probability what both these anatomists saw were degenerative changes in the epithelium—changes secondary to a preceding failure of nutrition, whatever the nature or cause of that failure may be. Other pathologists have supposed a primary affection of the capillary blood vessels or of the unstriped muscular fibres or of the epithelium, but the truth is that the earliest changes are very imperfectly known.

We are thus led on to survey the great field of strife in the topic of chronic emphysema. There is rarefaction of lung and there is destruction of lung. Does one cause the other, and if so how? And this is not all; we desire to look deeper still, and we ask how the primary defect, whether it be rarefaction or destruction, is brought about—to what is it due? In other words, what is the essence of emphysema? We wish, if possible, to witness emphysema in the making, and inasmuch as morbid anatomy can show us no more than the final result, I invite you to discuss the subject with me from the clinical point of view.

First, we will inquire what means we have for discovering the existence of emphysema in the living subject, and we are met at the outset by the fact that most of these patients suffer from manifest bronchitis also. These complex cases are not suitable for our present purpose; we cannot disentangle the symptoms of the two diseases so as to be able to say this is due to emphysema and this to bronchitis, whilst as to the physical signs of emphysema there are none, excepting in advanced cases, which are always complicated with bronchitis. If we require instances of emphysema quite unattended by catarrh, such instances are not to be found. However, let us consider a case of marked progressive emphysema in which the indications of bronchitis and catarrh are the least possible. A man about middle life begins to suffer from slight shortness of breath on exertion; he is short of breath—that is to say, the patient feels that he cannot inspire so much breath as he seems to need, in a sense like that in which we say that a man is short of money. His breathlessness increases slowly and insidiously until his breath is always short, but no signs of dyspnœa, no laborious or extraordinary movements of respiration, are apparent so long as he is at rest, not until he makes some effort, such as that of talking or moving the body. In cases still worse dyspnœa persists even when the patient is at rest. The dyspnœa of emphysema, like most other kinds of permanent dyspnœa, is liable to paroxysms in which the shortness of breath becomes very distressing. These paroxysms are induced by any effort, such as hurrying, or even no more than straining at stool, raising the foot to enter a carriage, or lifting the arm to shave. A paroxysm will sometimes occur during sleep, and will suddenly awaken the patient, or will sometimes occur just as he is falling off to sleep. The mere taking of food may be enough to provoke an attack; so will any sudden change in the temperature of the air breathed, such as occurs on leaving a hot room. The paroxysm is sometimes very sudden and severe, and the patient's description of it sounds very much like that of an attack of angina pectoris—indeed, the heart probably does participate, for I have known a pulse which was habitually about 80 fall to 60 or 70 during the paroxysm.

Now, suppose a patient suffering from progressive dyspnœa of this kind and from no other symptoms, no cough, no expectoration; and suppose we find by examining his chest that his lungs are enlarged, or, in other words, that he presents the physical signs of emphysema, we might well ask whether he were not the subject of protopathic emphysema. And some physicians say that they have met with such patients, and that therefore they believe in the occurrence of emphysema, pure and simple and uncomplicated. I cannot say that this has been my experience. I have never known this progressive dyspnœa and emphysema to be unattended by cough and expectoration.

The cough is a tickling cough (*tussis titillatoria*) brought on by a troublesome sensation referred to the larynx. A person affected in this manner and who, in the spirit of the age, diagnosticates the nature of his own disease goes to a specialist who snips off the tip of his uvula or discovers an irritable spot in the larynx, but fails to afford relief. The cough, like the dyspnœa, steals insidiously upon the patient until in the course of years he becomes liable to fits of coughing which are very severe, during which he becomes purple in the face and sometimes even suffers from giddiness—giddiness which is in any degree of intensity, from an attack so slight that the man declares that he has retained his sensibility throughout to an attack which amounts to total loss of consciousness, in which latter case the patient sinks to the ground and sometimes hurts himself in his fall, but even at its worst the coma does not last more than two or three minutes. The expectoration which attends the cough is very scanty and consists of pure mucus. Or it may be that there is no expectoration at all, or, at any rate, no exspuition.

Aretæus describes a class of persons whom he designates "pneumodes," a word which Stephanus interprets to mean *pulmonis vitio laborantes* or *pulmonarii*, and which seems to have the same meaning as the French word *poitrinaires*. Now, if it were not for one particular in Aretæus's picture of the disease we could not doubt that his "pneumodes" were cases of progressive emphysema. The disease, he says, is a kind of asthma, and there is little difference in the symptoms of the two diseases; all patients labour under shortness of breath as in asthma, but they have this as peculiar, that they cough as if about to expectorate, but their effort is vain, for they bring up nothing; or if anything is forcibly raised from the lungs it is a small, white, round substance resembling a hailstone. The thorax is broader than natural, but not altered in shape; the lungs, though free from suppurations, are filled with humours; in some cases the affection terminates in dropsy about the lungs or in anasarca. But the pneumodic disease proves fatal within a year from its onset, and this is so grave an objection to our supposing that Aretæus was referring to cases of pulmonary emphysema, that I should not have alluded to his description were it not for the peculiar sputum which he depicts, and which possesses the same characters as those of the sputum expectorated in the affection which Laënnec denominated "*catarrhe sec.*"

All physicians admit a close connection of some kind between bronchitis and emphysema—a connection in many cases so obvious as to be past all doubt, but in other cases not so. Laënnec went so far as to say that emphysema is almost always the result of intense and extensive *catarrhe sec.* All writers on emphysema mention this opinion of Laënnec's; few if any, adopt it or even discuss it, but no opinion of that remarkable man can be passed over lightly. What does he mean by dry catarrh? He himself admits that the phrase is a contradiction in terms; to find appropriate names for diseases was not a strong point of his; witness his perversion of the meaning of the word "apoplexy" in his phrase "pulmonary apoplexy." But medical writings are full of this fault, and Laënnec is no worse than many other physicians. A better name than dry catarrh would be dry bronchitis (bronchitis sicca), for the word "siccus" as applied to pulmonary diseases denotes scantiness or absence of expectoration. Stoll speaks of "pleuritis sicca" and "pleuritis humida"; Hippocrates of "dry orthopnœa," and the phrases "dry cough" and "dry asthma" are colloquial.

In the lungs of persons who died in an early stage of dry catarrh, Laënnec used to find the mucous membrane of the bronchia swollen and dull-red or violet in colour—conditions most notable in the smaller bronchia, which might be almost completely obstructed by the swelling. The extent of the swelling was not more than a few lines, the mucous membrane in the same tube above and below being natural. This local bronchitis was extensive in proportion to the duration of the disease. When the dry catarrh was universal, or even very extensive, it always ended by determining emphysema. He often found the partially obstructed tubes to be plugged by pellets of viscid mucus of the size of hemp or millet seeds, and it is these mucous pellets which make up the pearly sputa which such patients, even when they think there is little or nothing the matter with them, expectorate in small quantity every morning.

During life the dry catarrh often continues to a slight degree for many years, Laënnec goes on to say, or it may be altogether latent, the patient noticing no more than that his breath is shorter than that of other men, especially upon exertion. This dyspnœa increases gradually, and the patient becomes subject to attacks bad enough to deserve the name of asthma. The tendency to dyspnœa is accompanied by cough, which at the beginning of the disease is, like the dyspnœa, slight. The cough is attended by expectoration of what Laënnec calls pearly sputa, which closely resemble the hailstone sputa (*chalazia*) described by Aretæus and Galen. Such is a brief summary of Laennec's characterisation of his *catarrhe sec.*

Now, if we admit that a man in a state of perfect health ought not to cough or expectorate, and also that expectoration implies catarrh, it follows that at no period in the progress of emphysema is that condition unassociated with catarrh. Again, inasmuch as emphysematous patients always become in the advanced stage of their disease manifestly bronchitic or catarrhal, it is reasonable to believe that in the early stage also their cough and expectoration indicate slight bronchitis or catarrh. Lastly, the symptoms of progressive emphysema (as I have already attempted to depict them) and those of Laënnec's dry catarrh seem to relate to the same disease looked at from two different points of view.

We have now reached a position which enables us to resume our discussion of the nature of emphysema. Starting from the note of progressive emphysema—namely, the atrophy of lung tissue—the problem may be resolved into a choice between these alternatives. Is there a primary degeneration of lung tissue, rendering it apt to be permanently distended and also to be destroyed particle by particle? Or is the atrophy due to distension of the lung, and, if so, what causes the distension? In briefer language, is the atrophy primary or secondary? The easiest answer is that which assumes the atrophy to be secondary to distension. Laënnec asserts that "pulmonary emphysema is almost always developed in consequence of intense and extensive dry catarrh," and we have seen that clinical observation supports this opinion. But in speaking of the priority of catarrh we must understand it only as a priority of order and conception and not as a priority of time. Another argument in favour of Laënnec's opinion is this, that inasmuch as acute emphysema is undoubtedly dependent upon bronchial affections, it is probable by analogical reasoning that chronic emphysema likewise is so. I will not repeat Laënnec's explanation, which you all know, concerning the manner in which he supposes dry catarrh to lead to emphysema, and I will only remark that his hypothesis is not so easily set aside as some people think by pointing out that the air-current at the mouth of a healthy man is more powerful during expiration than during inspiration, for the conditions in pulmonary catarrh are obviously not the same.

Let us fix our attention upon the fact of the barrel-shaped chest in cases of emphysema. It is a chest more capacious than a healthy chest could be rendered by the deepest and most powerful inspiration. The distended chest is a sign of distended lungs, and this fact puts before us a disjunctive hypothesis: either the distended chest distends the lungs, or the distended lungs distend the chest. Now the latter hypothesis affords no explanation at all, because it leaves the distension of the lungs unexplained; and the cause of this pulmonary distension or emphysema is the very thing we are asking for. Wherefore let us consider the former hypothesis, namely, that the distension of the lungs is consequent upon increased capacity of the thorax. In normal inspiration which fact precedes the other, dilatation of the lungs or dilatation of the chest? And by what powers can the chest be over-distended? Obviously by the inspiratory muscles, ordinary and extraordinary, and by no others. And if the chest be over-distended, what must ensue? Over-distension of the lungs, because the potential vacuum caused by extraordinarily deep inspiration is certainly not filled up in any other way.

In health the inspiratory distension of the lungs is exactly countervailed by the expiratory contraction. Why, then, in the barrel-shaped chest is this no longer the case? Obviously because the expiratory powers have been unequal to the task of restoring the chest to its natural shape and size. That is to say, the expiratory powers are no longer equal to the inspiratory. And is not this a sufficient reply to those who, relying upon spirometrical observations made upon healthy people, reject Laënnec's explanation of the mechanism of emphysema?

In emphysema, then, there is failure of expiratory power; nay, more, this is the essence of emphysema. Expiration being no longer able to rid the lungs of their exhausted air, ordinary inspiration cannot supply the necessary quantity of fresh air. And there is only one means by which the expiratory failure can be met, and that is by inspiratory movements extraordinary in power and amplitude. These extraordinary inspirations being repeated for weeks, months, and years, the chest becomes permanently over-distended, and hence the lungs become permanently over-distended, and this is emphysema.

We have no clear and certain knowledge respecting the nature of the expiratory failure. We may conceive it to be absolute or relative. Absolute—that is to say, the elastic and muscular movements of expiration are weakened; relative—that is to say, the resistance which expiration has to overcome is increased. 1. The notion of an absolute debility of expiratory movement must relate to the elasticity of the lungs only, because there is no reason for supposing the elastic or muscular movements of the chest to be primarily weakened. And thus we are led back to the question of degeneration of lung tissue, either primary or secondary to other disease—an obscure topic which we will again defer for awhile. 2. But the notion of a relative debility of expiration is that which lies at the bottom of Laënnec's doctrine, the resistance to expiration being increased by the presence of mucous plugs in the air tubes and by swelling of the mucous membrane. True, reply his critics, but these obstructions are equally great for inspiration as for expiration, and thus we are again met by the question concerning the relative powers of inspiration and expiration—a question which is answered by reiteration of the fact that Nature has provided us with very feeble means of reducing by forced expiration the distension of the chest and lungs produced by forced inspiration. The extraordinary muscles of expiration are inadequate, whilst as to the elastic tissues of the lung we may hazard the conjecture that if overstrained they do not easily recover, and it is only inspiration that can overstrain them.

Now, just to consider for a moment the question whether the over-distended chest can possibly be due to over-distended lungs. In other words, can we assume a primary over-distension of the lungs powerful enough to distend the whole thorax and to make it barrel-shaped? If so, what distends the lungs? Forced expiration is sufficient to distend certain portions of lung which are unsupported by bone or muscle, such as are the apices. But more than this is inconceivable; it is inconceivable that expiration, how forcible soever, can produce a shape of chest which is identical with that produced by forcible inspiration. Again, a favourite seat of emphysema is the undermost surface of the lung where it lies upon the diaphragm; how can coughing—an act during which the diaphragm is driven powerfully upwards—over-distend this portion of lung? Surely it is the powerful inspiratory descent of the diaphragm which produces this effect; and let us remember that the forced expiration of persons coughing, of musicians, or of horses tugging up a hill is rendered possible only by a preceding forced inspiration. In short, we cannot understand the occurrence of a primary over-distension of the lungs sufficient to distend the thorax.

Now to discuss and finally to dismiss the question of the degenerative lung changes. In the first place, it is probable that the elasticity of the lungs is injured if the tissues be much or often overstretched, and any such loss of elasticity must tend to increase emphysema by weakening expiration. In the second place, it is very reasonable to believe that the anæmia, which is the visible and undoubted result of over-distension of any portion of the lung, will cause degeneration and atrophy of the tissues thus imperfectly supplied with blood. In the third place, it is possible that there is such a lesion as primary atrophy of lung, analogous to the atrophy and perforations which we often observe in the omentum, falx cerebri, and valves of the heart. In the fourth place, it is not unlikely that the form of pulmonary emphysema in which the total size of the lung is not increased, "atrophous emphysema," is an atrophy of the second or third kind. And, lastly, there are good grounds for believing that even ordinary progressive emphysema with enlarged lungs is from its very beginning an atrophic process, even although to the mind's eye the destruction be secondary to the distension.

To end our inquiry by recapitulating the results at which we have arrived, I submit to your judgment these propositions: That pulmonary emphysema is chiefly due to forced inspirations, although forced expiration may to some small extent play its part. That the distension of the lung in so far as it is due to inspiration is secondary to distension of the chest. That the forced inspiration is rendered necessary by a feeling of dyspnœa. That the dyspnœa which occurs at the beginning of pulmonary emphysema, and which determines it, is consequent upon obstruction of the air passages. That in chronic progressive emphysema this obstruction depends upon bronchitis, either humid and attended with free secretion or dry with scanty secretion. That when once emphysema is set up, the dyspnœa and the necessity for forced inspiration are increased by the natural defect of expiratory power in the lungs and in certain parts of the chest, Nature having provided means insufficient for reducing excessive inspiratory distension to the normal, and for thus emptying the lungs of residual air. That the degeneration and atrophy of lung tissue are usually dependent upon preceding over-distension, although it is possible that pulmonary atrophy may to some extent be primary.

Allow me to conclude by appropriating the words of the most ancient of the Greek philosophical poets: "These opinions have seemed to me to resemble the truth."

LECTURE III.

ON THE NATURE OF ASTHMA.

I PROPOSE to devote this day's lecture to a discussion of the nature of asthma. The topic you will, perhaps, consider to be almost exhausted. However, I invite you to the discussion because even if we cannot predicate all that asthma is, yet the time has come, I think, when we should finally dismiss certain opinions which have for two centuries impeded the attainment of clear notions upon the pathology of the disease.

Before proceeding to the argument it is desirable that we should come to an agreement as to the meaning of the word "asthma." It was used in a simple etymological sense until the time of our distinguished Fellow, Dr. Thomas Willis, in the middle of the seventeenth century. Asthma before his time denoted any kind of panting, gasping, pursy breathing, such as follows upon running or exertion. Hence asthma and dyspnœa were synonymous for most of the older physicians. A few, such as Celsus, signified by asthma the highest degree of dyspnœa, but this was all; asthma was never regarded as a special sort of dyspnœa. In reading the writings of the ancients we must always bear this in mind, and beware of importing into their generic use of the word the special meaning which it bears in modern times. Indeed, so far as my limited reading enables me to judge, I should say that what the ancient physicians have left us concerning asthma is of very little value. It is interesting to note that those most conservative of people, the illiterate, continue to use the word in the sense of Hippocrates and Galen.

Thomas Willis was the innovator upon the doctrine of the ancients. His opinions, in their mature form, are found in the second part of his *Rational Pharmaceutic*, published in

1675, after his death in the same year. He says, truly enough, that the ancient physicians and also most moderns up to his time had admitted only one kind of asthma, that which he calls pneumonic asthma, and which had always been deemed to be the result of the air passages of the lungs being obstructed or not open enough. It would be a more accurate expression to say that the ancients regarded all cases of asthma as pneumonic and dependent upon bronchial obstruction. From this pneumonic asthma Willis distinguishes a second kind which he calls convulsive asthma, the primary fault being in the motive organs of the lungs, to wit, in the moving fibres or muscular coats of the air vessels or in the diaphragm and muscles of the chest or in the nerves of the lungs and chest or in the origin of those nerves in the brain. There is also, he says, a mixed asthma, both pneumonic and convulsive, and inveterate asthma is usually of this kind.

You will observe that Willis's doctrine is very comprehensive, and that he vaguely anticipates all the theories of asthma which have been propounded since his day. His new notion of convulsive asthma was soon laid hold of; the term "asthma" came to be reserved for the exclusive denomination of that form of the disease which was believed to be spasmodic; and this is the sense in which the word is still used by most persons even in our own day. Willis's influence upon this question of pathology has been so great that the present lecture is to a large extent an endeavour to determine whether he were the discoverer of an important truth or the parent of a delusion. A satisfactory definition of the word "asthma" will be the end of our discussion if we succeed in attaining a clear and distinct notion of the nature of the disease, for, as Milton, writing in the spirit of both Plato and Aristotle, says: "Definition is decreed by logicians to consist only of causes constituting the essence of a thing." But meanwhile we may perhaps be able to agree upon a sort of provisional definition logically less exact. Thus, some diseases are defined accurately enough by means of what are called their anatomical characters, or the attendant lesions of structure, and some diseases are defined less accurately by their symptoms or the attendant lesion of function. Let us examine asthma from these two points of view.

First, what is the morbid anatomy of asthma? Here I must ask your attention to a very curious and remarkable fact. You may look through a large book upon asthma, an elaborate treatise deserving the repute it has gained, and you will find no chapter dealing with morbid anatomy. Yet surely some asthmatic patients die uncured, and some of their bodies are examined, and in all the bodies examined material lesions are found. What are they? Now many of these lesions are found in some bodies only, and therefore cannot have anything to do with the immediate cause of asthma. Some of these inconstant lesions are those which are apt to occur in the decline of life; and it is noteworthy that Rostan, the discoverer of softening of the brain, and who practised at the Salpêtrière in Paris, the great hospital for old and infirm women, after asking the question, Whether the asthma of old people be a nervous affection? replies as the invariable result of his *post-mortem* examinations—That the asthma of old people is a symptom of an organic lesion, and especially of atheroma of the aorta and of hypertrophy of the heart. Most physicians of our day would probably agree that Rostan's opinion is correct so far as its general principle is concerned—namely, that organic lesions in the chest are found—but he errs in his particulars by being far too exclusive; several morbid changes are much more frequently met with than those which he mentions. Again, such lesions as tuberculous affections of the lungs, phthisis (active or retrograde), and acute miliary tuberculosis, though often seen in persons who are not old, cannot be deemed essential to asthma. But signs of bronchitis and pulmonary emphysema are always found; and though no one would call them the anatomical characteristics of asthma, yet the fact that they are constant demands that they should not be passed over or dismissed with the remark that they are mere complications, an obvious begging of the question. That the bronchitis of asthma should be regarded as an accidental complication and by no means as an essential element of the disease is due to the fact that, since Willis's time there has always been a strong tendency to look upon asthma as something mysterious and its cause as supersensual. However, you will probably assent to the proposition that either bronchitis and emphysema constitute the morbid anatomy of asthma or it has no morbid anatomy. In either case we must reluctantly conclude that structural lesions cannot help us to a definition.

Secondly, definitions based upon symptoms or disordered functions observed in the patient during life are seldom satisfactory. In the case of asthma, any definition of this kind would involve so many explanations, reservations, and distinctions that it would be nothing less than a full description of the disease. I will not attempt to succeed where all nosologists have failed, and I fear that we must confess that symptomatology cannot help us to a definition.

So we will proceed to our investigation in the belief that in the case of a given patient most physicians would agree whether he were suffering from asthma or not, and that we have a pretty unanimous though an indefinable notion of the disease. Yet we must admit that the notion has been inconstant, that the extent of meaning of the word has been growing narrower and narrower. Much of what Willis called pneumonic asthma has long since ceased to be called asthma at all; much of what, by way of exclusion, was formerly deemed to be convulsive asthma is now known to be dyspnœa due to disease of the heart, blood vessels, kidneys, to poisoned blood, and other conditions which need not be enumerated. Thus there is a risk lest asthma should become a mere *caput mortuum*, a kind of dyspnœa left when all known causes of dyspnœa have been separated, ths definition of the word being purely negative, indicative of what asthma is not. But asthma is not a mere *caput mortuum.*

Inasmuch, then, as our most trustworthy guides in all the physical sciences, our senses, seem insufficient to enable us to explore the essence of asthma either in the living body or the dead, we must try to grope our way by the help of reason. And we will recur to the rival hypotheses already mentioned and will debate the question which remains much as Willis left it, namely, whether asthma is a pure affection of the nervous system or whether it is all pneumonic, due, that is to say, to gross material changes in the lungs, or whether it is a combination of the two.

I. In the first place, let us discuss the nervous, convulsive, or spasmodic hypothesis.

(1) That the air tubes possess muscular coats or moving fibres was well known to Willis. That these fibres will contract under appropriate stimulus so as to diminish the capacity of the bronchia, has been demonstrated many times by experiment, the vagus being the motor nerve. But farther than this our knowledge does not extend. From the best and latest works upon human physiology we cannot learn what the use of these fibres is, nor under what conditions they contract, nor whether they contract quickly or slowly, nor whether their contraction is momentary or enduring, yet surely we ought to be able to answer these questions before we can deduce a pathology of asthma from perverted function of these fibres. The prevailing feeling is that they help the bronchial walls to resist any unwonted pressure from within—that they oppose distension of the air tubes. But even supposing this opinion to be true we are no nearer to understanding the part which these fibres have been assumed to play in the production of asthma. We will admit that it is conceivable that their contraction may cause dyspnœa, but we must make the reservation that there is no proof of this assumption. And one thing seems to be certain—namely, that if there be such a disease as bronchial spasm, pure and simple, it must be a very rare condition, because it is inadequate to explain the catarrh which manifestly attends most, if not all, asthmatic seizures. Willis himself was far too sagacious a man not to have seen the meaning of this fact. He writes thus: "Although an asthma is sometimes simple from the beginning, namely, either merely pneumonical or convulsive, notwithstanding, after either disease hath for some time increased, for the most part it gains the other to itself, hence it may be concluded every inveterate asthma to be a mixed affection." But we have already seen good reason for doubting whether this doctrine of Willis's goes far enough. The whole subject of bronchial spasm is involved in so much obscurity that we cannot admit more than that it perhaps takes a share in the production of asthma, but is seldom, if ever, the chief or only cause. And we will dismiss this topic by adopting h words of an able physician of the last century, Robert

Whytt, "that a true nervous or spasmodic asthma, without any other fault in the lungs than uncommon delicacy or irritability of their nerves, is a disease which we seldom meet with."

(2). Let us come to the muscles of respiration. When I began to lecture on medicine at St. Bartholomew's Hospital it seemed necessary that I should expound some theory of asthma. I had been much struck by observing in bad attacks of asthma the fixed immobility of the chest in a state of the fullest possible inspiration. About the time I came across a paper by an experimental physiologist who had found that centripetal excitement of the vagus, divided below the junction of the superior laryngeal nerve, produced tetanic contraction of the diaphragm, intercostals, and other inspiratory muscles, a state of things which is necessarily accompanied by dyspnœa, and which, in this respect, resembles the asthmatic paroxysm. And so for a year or two I taught that the fit of asthma, at its beginning at least, was due to centripetal irritation of the vagus. But maturer experience soon showed me that this fixed inspiratory distension of the chest is by no means a constant attendant upon asthmatic dyspnœa, that the inspiratory movements are sometimes free and ample enough, and thus I lost all faith in the doctrine of protopathic inspiratory spasm. Moreover, what is the evidence of inspiratory spasm during the attack of asthma? No doubt the chest is in a state of inspiratory distension, dilated to its utmost capacity and fixed in this position. But it is more likely that this state of things is due not to inspiratory spasm but to expiratory debility. Air is imprisoned in the lungs, and no amount of forced expiration can empty them. In the last lecture I showed what a very partial process forced expiration is; over many portions of the lung it has no power. If the sufferer could empty his lungs he could fill them again; it is the deflation which is at fault, and the extreme inflation is due to incessant forced inspiratory efforts to make the most of what little room for fresh air can be provided by forced expiration. This fact is very well expressed in a tale told by Dean Swift of a farmer who, when dying of asthma, said: "Well, if I can get this breath once out I'll take care it shall never get in again." And thus to conclude this topic I submit that inspiratory spasm is not the cause of the asthmatic paroxysm.

(3) Again, Willis thought that convulsive asthma might sometimes proceed from irritation of the pulmonary or thoracic nerves, or of the origin of these nerves in the brain. This is one of those recondite propositions which can be neither maintained nor refuted. Contraction of the bronchial muscular fibres or of the respiratory muscles, if it play any part in the asthmatic paroxysm, may doubtless be due to irritation of appropriate nerves; but the muscular contraction itself has not been proved to occur, and this must be done before we need discuss its causes. The influence exerted by the nervous system upon secretion, nutrition, and the blood supply is well known as a general fact, but any particular application of this fact to explain the pathology of asthma is at present beyond our power. Thus, we have no evidence to show that asthma takes its origin from the nerves or brain.

II. But if asthma be not convulsive, we are thrown back upon the hypothesis of pneumonic asthma, for we have no third explanation before us. Let us review the argument in favour of pneumonic asthma. This argument is wholly analogical. There are several diseases which resemble asthma in certain respects, more or less. Perchance we understand the pathology of these diseases somewhat better than that of asthma. If so, we may inquire whether the nature of asthma can be assimilated to that of the diseases which it resembles. It is obvious that such an argument as this is far enough from deserving the name of induction, but we will be comforted by the saying of a wise man, that to us probability is the very guide of life. Let us enumerate and illustrate the diseases referred to.

1. *A Peculiar Form of Acute Bronchitis.*—"Last summer I went out of town to see a little boy, 7 or 8 years of age, whose life was very precious to his family. He was thought to be dying of inflammation of the lungs. I found him raised up in bed, supported by his nurse, and breathing with all his might. His skin was hot, his face flushed, and his chest heaved, and his nostrils quivered frightfully. There was no croupy sound. Whatever the disease was it was all within the chest. I percussed the chest; it sounded well in every part. I listened; the air entered freely, and reached every cell and vesicle of the lungs, but there was not the least perception of the natural respiratory murmur; a shrill sibilus had taken place of it altogether. Wherever you applied your ear to the chest you might fancy you heard the piping and screaming of a nestful of unfledged birds." Probably many of you will have recognised the hand of Dr. Peter Mere Latham in the somewhat rhetorical character of the description I have just read. I have set before you his description of the disease because it serves as an emphatic text and not because the affection is very uncommon; it is alluded to by many of the best authors, and I myself have seen a considerable number of cases. Latham goes on to say: "I am speaking of a disease which must be distinguished from asthma according to the usual acceptation—a disease not habitual to the individual, and of which, perhaps, he has never suffered a previous attack." But of course an asthmatic must have his first attack, to which Latham's criterion of habit cannot be applied, and unless he had told us that his patient had never before suffered from a similar attack and never had one afterwards, his argument that the disease was not asthma falls to the ground.

Latham's patient certainly suffered from acute dry pulmonary catarrh, to use the phrase of Laënnec; but in this form of disease the catarrh is not always dry; on the contrary, small mucous *râles* are sometimes heard all over the chest. I saw a girl, 4 years old, who one morning had a little cough, but was quite well in all other respects. In the afternoon she suddenly became much worse, and her state alarmed everybody. In the evening her distress, dyspnœa, and lividity were great; the upper part of the chest expanded considerably on inspiration, but there was at the same time much depression of the roof of the neck, of the epigastrium, and of the base of the chest. All over the lungs small mucous *râles* were heard. Her voice and cry were natural, so that there was no reason for suspecting laryngeal disease. Her temperature was below the normal. I was told that she had suffered from several sharp attacks of what had been called "bronchitis" and "congestion of the lungs;" that she had been subject to eczema all over the body; and that her father's father and brother had been "asthmatics" until they reached maturity. The very same night she improved much, and next day she was comparatively well; recovery was rapid.

The chief characteristics of this form of bronchitis may be thus enumerated: The rapidity with which the dyspnœa becomes extreme; the attendant fever, little or none; the whole attack seldom lasting more than two or three days; and the great tendency to recur. In the intervals most of the patients are free from pectoral symptoms, but in some cases emphysema occurs, and I have seen it well marked in a patient only 3 years old subject to this disease. Most of the children have suffered from eczema, and most of them come from families prone to asthma, bronchitis, and gout.

When we inquire into the previous history of patients who during youth have been liable to undoubted asthma, we find that in a certain number of them their disease dates from one or more attacks of this kind. And surely these attacks were asthma from the very first, although they were not deemed to be so at the time, but were called in Latham's language "acute bronchial inflammation putting on a peculiar form and affecting a peculiar course." The bronchitis does not cause the subsequent asthma, but it is asthma; the two diseases are identical in nature, and the asthma is bronchitis, although a peculiar form of bronchitis.

2. *Spasmodic Croup.*—This is an old phrase now seldom used, yet I do not know that we have a better. It is not a good phrase, because it implies a hypothesis which is probably untrue. The disease is characterised chiefly by acute dyspnœa; indeed, most of the cases described by Millar in the last century under the name of "acute asthma" were cases of spasmodic croup. Spasmodic croup is not laryngismus stridulus, for the dyspnœa of laryngismus is momentary, whereas that of spasmodic croup lasts for several hours and on and off for days. Spasmodic croup is not quite the same thing as laryngitis stridula—a disease which is characterised more by dysphonia than dyspnœa. Dr. Benjamin Rush, of Philadelphia was the first to apply the epithet "spasmodic"

to the disease—an indication probably that he as well as Millar recognised a resemblance to spasmodic asthma. I enter into these details because there still exists, as there always has existed, much confusion in the use of these names. Millar's description of the disease, published in 1769, is vitiated by the fact that he does not distinguish the different kinds of acute laryngeal disease which cause dyspnœa in children. Rush's description, published in 1789, is much more precise, perhaps because more concise. He says that "the cynanche trachealis spasmodica is known (1) by coming on suddenly, and that generally in the night; (2) by frequent and perfect intermissions of the symptoms for hours, and in some instances for days, without the least sensible discharge from the trachea; and (3) by yielding to anti-spasmodic remedies, particularly to the warm bath." Rush had examined the body of a fatal case and had found no marks of a membrane or even of mucus in the trachea; the lungs and trachea appeared to be in a sound state.

Many persons have believed in a close analogy between spasmodic croup and spasmodic asthma. Some have even gone so far as to say that "children who have been the subjects of croup or stridulous laryngitis in their earlier years are prone to suffer from true asthma in later life," but, judging from the facts of my own experience, I am disposed to think that this sequence is not common. Unfortunately the pathology of spasmodic croup is not well understood. I do not know that the glottis has ever been seen by means of a laryngoscope during the attack of dyspnœa. Could this be done, it would go a long way towards clearing up the darkness which hangs over the subject. Moreover, patients when attacked by spasmodic croup seldom die, and thus we are deprived of the information which minute *post-mortem* examination might afford. Nobody doubts that the disease implies an element of acute laryngitis, or of croup—for these two terms are almost synonymous, croup being the acute laryngitis of children. The evidence of laryngitis depends mainly upon these two facts: first, that the attack of dyspnœa is preceded for a few hours by hoarseness and croupy cough, and perhaps by other signs of catarrh of the respiratory mucous membrane; secondly, that the interval between the attacks is not free from the same symptoms. Admitting, then, that there is a fundamental ground of laryngitis, we must inquire in the next place into the cause of the dyspnœa, so sudden and so temporary, and here lies the difficulty. The epithet "spasmodic" begs the question by assuming that spasm of the glottic muscles is superadded to the laryngitis. But when we compare spasmodic croup with what is universally admitted to be a glottic spasm, that is to say, with laryngismus stridulus, the difference between the two diseases appears to be so great as to make us doubt whether the dyspnœa of croup can be spasmodic. In laryngismus the dyspnœa sets in very suddenly and lasts only a few seconds, for if it last longer the child will die. At any rate, if the croup be spasmodic we must assume that the spasm is very incomplete and that it lasts several hours—assumptions which seem improbable. It is improbable that the spasm should be always incomplete, and should never become a thorough laryngismus and thus kill the patient, whereas deaths from spasmodic croup are so uncommon that we may almost say that they do not occur. Moreover, the catarrhal swelling of the laryngeal mucous membrane would render any spasm much more likely to prove fatal, and we must never forget the small size of the glottis in children when we speak of their laryngeal diseases.

But if we give up the notion of spasm are there any other explanations which we can fall back upon? Two have been offered. One was put forward first, so far as I know, by Felix Niemeyer. He supposes that viscid mucus accumulates in the glottis while the child is asleep; that this mucus becomes dry, and so glues up the rima glottidis—an ingenious explanation, not wanting in plausibility, but which can be neither proved nor disproved. The chief argument against this hypothesis is found in the great resemblance between spasmodic croup and the peculiar form of acute bronchitis which we discussed just now. In both diseases, the same slight premonitory catarrh, the same sudden onset of alarming dyspnœa in the afternoon, the same speedy abatement of the dyspnœa, the same freedom from fatal results, and the same tendency to recur. Now, there is no reason for thinking that the bronchitic dyspnœa is due to accumulated mucus, still less to dried mucus; and hence we may well doubt whether spasmodic croup is due to these conditions. But yet, until we can bring our senses to bear directly upon the glottis, until we can see what actually takes place, we may admit that there is possibly some truth in Niemeyer's hypothesis. How often are we tempted to exclaim, with the surgeon in the old novel, "A fig for reason, I laugh at reason; give me ocular demonstration."

The other explanation seems more probable. It supposes a sudden and temporary swelling of the mucous membrane of the larynx, such as sometimes occurs in the pituitary membrane during acute coryza when one nostril becomes suddenly blocked, and not by mucus, so far as can be made out, or at least no mucus can be expelled from the affected nostril. In the case of the nose this sudden swelling can be easily understood, for anatomists tell us that the veins of the mucous membrane over the turbinate bones constitute a cavernous structure, and that the membrane in this situation is erectile. No structure of this kind has been detected in the mucous membrane of the larynx, and hence the argument from analogy is weakened in a corresponding degree. In short, the opinion that spasmodic croup is due to sudden swelling of the mucous membrane depends mainly upon reasoning by way of exclusion, there being fewer objections to this pathology than to the hypotheses of spasm or of mucous obstruction.

Leaving these dry catarrhs of the respiratory tract, let us turn our attention to certain catarrhs of a character exactly opposite, being attended by abundant secretion of mucus, for these catarrhs also have a close affinity with asthma.

3. *Paroxysmal Coryza.*—In the first place we will consider paroxysmal coryza or "paroxysmal sneezing," as it is sometimes called. And let me set before you a vivid picture of the disease drawn by a sufferer, a married lady, aged 29 years. I copy the exact words of a letter she wrote: "Severe cold in the head every morning for two or three hours after waking; continual running of the nose, sneezing, watering of the eyes; pocket-handkerchiefs are of no use, I have to use towels. Frequent fits of violent sneezing, perhaps repeated a dozen or twenty times. Continual rising of phlegm into the mouth in the morning on waking; often an accumulated mass of phlegm has to be got rid of. Loss of taste and smell and impaired voice in singing. The above symptoms have been present for five years, though they have increased of late. In addition the following have occasioned trouble during the past nine months: a wheezing in the chest, difficulty in breathing, or in taking a deep breath. At times this prevents me from lying down at night; at least I go to sleep in the usual way, but am disturbed three or four hours after by a feeling of suffocation, and am obliged to spend rest of night sitting in a chair. This feeling sometimes comes on without any warning. Last week, when returning from a dinner party, I suddenly became oppressed in breathing, and had quite to struggle for breath for ten minutes or so. Violent exercise such as running, and I think swimming, also hearty laughing, produces much the same effect, namely, a wheezing and difficulty in breathing freely. Voice in singing much fallen off. Damp weather and cold winds seem to increase the tendency." Thus far the patient's own report, to which the following facts may be added: There was a tendency in her family to asthma, eczema, and gout; she herself never had eczema, but it had appeared in several of her relatives, and also in her only child, 15 months old.

The connection between paroxysmal coryza, asthma, and eczema is remarkable. A girl, 11 years old, had suffered from frequent attacks of asthma since the age of 2 years. Moreover, she had always been liable to fits of bad sneezing with running from the eyes. This sneezing was sometimes followed by asthma, sometimes not. When a baby she had eczema. In her father's family there was a tendency to eczema and gout, but not to asthma; in her mother's family there was probably a tendency to asthma. She had a younger brother who also was asthmatic, and who suffered from eczema in infancy. The girl, the brother, and the mother were all of a dark complexion. A second girl, sister of the patient, was of a fair complexion and had shown no tendency to asthma.

A boy, 2½ years old, became eczematous at 6 months of age.

The eczema cleared off at 12 months, and then he began to suffer from asthma. And mark that his attacks of asthma began with sneezing and running from the nose, and that an evidence of the chronic nature of the coryza was afforded by the ill-developed condition of the bridge of his nose. But there was no obstruction to his breathing in the nose itself.

At the risk of wearying you let me give you a brief outline of another case which shows the connection between this recurrent coryza and spasmodic croup as well as asthma. A lady, 30 years old, was subject to spasmodic croup when a child, and had been liable to bronchitis all her life. Since the birth of her first child three years ago she had become asthmatic—that is to say, she was continually rather short of breath, but more especially soon after arising in the morning or upon any sudden effort; her breathing would sometimes become very bad, she would turn blue, and the whole attack would last two or three hours; it had occasionally recurred three or four times in the day. Moreover, for two years she had been subject to attacks of sneezing almost daily, with copious distillation from both nostrils, as bad in winter as in summer. There were no objective signs of disease in the chest, nasal fossæ, or pharynx.

It is no part of my plan to discuss the relation which exists in some cases between these paroxysmal disorders and permanent disease of the nasal and post-nasal regions. But with regard to the actual attack of coryza let us observe that it is more than a mere defluxion of mucus. The mucus membrane of the nasal fossæ is swollen, especially the cavernous tissues over the turbinate bones, which swelling may be enough to make the opposite surfaces of the mucus membranes touch, and to the tickling sensation which ensues upon this contact much of the sneezing, and much, in all probability, of the distillation are due. The fact that in some cases asthma very quickly follows coryza suggests the notion of a rapid spreading of the catarrhal affection downwards along the respiratory tract; what in the upper part is a paroxysmal coryza becomes in the lungs paroxysmal dyspnœa, or, in other words, asthma.

4. *Paroxysmal Bronchial Flux.*—Closely allied as paroxysmal coryza and asthma undoubtedly are, there is an obvious unlikeness between them in one respect—namely, in the amount of mucous secretion. But there is a peculiar form of what Laënnec calls acute pituitous catarrh of the bronchial tubes, which more exactly resembles recurrent coryza in the abundance of the flux, its short duration, and its tendency to recur.

"A woman, aged 32, corpulent and of fair complexion, had suffered for some months from an obstinate cough, when one evening she was attacked by a complaint which very much resembled the paroxysm of spasmodic asthma, except that it was much more violent than first attacks of that disease usually are, and that its remission was attended with a very copious discharge of frothy serum from the bronchial tubes, which was thrown up by a slight, though almost continual, cough." On the next morning she was much better and she soon recovered. Some months afterwards she had another attack of the same kind, and about eighteen months after the first attack she had a third, much more violent. "She was suddenly seized with dyspnœa, attended with a convulsive kind of cough, which in less than five minutes from the time of attack increased so as to produce the appearance of suffocation. Her senses forsook her, her face became livid, her extremities were cold, and the action of the heart was so much diminished that no pulsation could be felt in the wrist, and but very little in the left side. She remained in this state nearly two hours, during which time a very large quantity of frothy serum tinged a little with blood was discharged without any visible effort by the mouth and nostrils. About the end of that time some very faint and involuntary efforts to cough came on, which gradually increased, and with every effort large quantities of the frothy serum were thrown off; perhaps the whole quantity might amount to 3 or 4 pints. About three hours after the beginning of the attack the difficulty of breathing became very sensibly diminished, and her senses were observed to return." In a few hours she had recovered so as to be much the same as she was before the seizure. After a somewhat longer time she had attained the condition of a patient in the best state of health. This woman was a patient of Mr. Thomas Baynton, of Bristol, and her case is narrated in a book published by the well-known Dr. Thomas Beddoes, of the same city. You will have observed that the profuse expectoration is said to have been "serous," but this word is no doubt used in a loose sense, for Beddoes, who was a good chemist, expressly says that the fluid was ascertained by careful inquiry to be mucus, and not saliva, as he at first suspected. In my first lecture on bronchitis I spoke of acute pituitous catarrh, always a serious disease; and Baynton's case was an instance of this affection, but peculiar from its tendency to recur, and in this respect closely resembling paroxysmal coryza and asthma.

5. *Hay Fever.*—In this place I might refer to the fact that hay fever, which usually assumes the form of coryza and lachrymation, sometimes becomes an asthma. The paroxysms of hay asthma and of what we call ordinary spasmodic asthma differ in no particular. But this topic has been so fully discussed by our late distinguished President (Sir Andrew Clark), whose opinions are doubtless well known to you all, that I need not allude to them here I will only repeat that the cause, whatever it be, of hay fever will produce ophthalmia, coryza, or asthma according to the portion of the mucous membrane which is affected.

And to sum up the argument in favour of the opinion that asthma is (in Willis's phrase) pneumonical, as distinguished from the convulsive form of the disease, the assumed bronchial obstruction being due, not to any sort of spasm, but to what he calls an afflux of humours upon the air passages. We have seen that there are five or six affections of the respiratory tract which are closely allied to asthma, and which may be said to constitute, together with asthma, a special class of diseases, characterised as follows: They set in suddenly, they speedily reach their highest point of severity, their duration is short, they are apt to recur, and in the intervals the patient is more or less free from signs of disease until the catarrh becomes chronic. The tendency to the disorders is hereditary and runs in families; many patients manifest a tendency to two or more of these complaints. If the force of these analogies be admitted, we may carry the argument farther and observe that all these diseases are catarrhal. Now, catarrh implies two conditions—namely, increased secretion and swelling of the membrane; but, as a matter of fact, neither of these conditions is constant. The defluxion or increased secretion may be absent, or at most may be very small, and this constitutes Laënnec's dry catarrh. The swelling is more constant, at least in acute catarrh; in paroxysmal coryza, which has so close an affinity with asthma, the swelling can be seen; moreover, both defluxion and swelling occur with great rapidity. The two concomitants of catarrh will explain the most important symptoms of all the disorders in question, including asthma.

If we consider the catarrhal tendency to be due to an inherent delicacy or vulnerability of the mucous membrane, a tendency usually inherited, we seem to be able to understand the reason of the fact that asthmatic persons during childhood are so often liable to eczema, which may be deemed to be indicative of a similar condition of the skin.

In the earlier part of the lecture we arrived at the conclusion that the doctrine of a spasmodic asthma is very imperfectly supported by facts, and now the argument has led us to believe that all asthma is merely a peculiar form of bronchitis, and that there is no need for any hypothesis of spasm in order to explain the phenomena of the disease. Should it be objected that bronchial spasm may possibly aggravate the effects of catarrh, we may appeal to the philosophic law of parsimony—*Entia non sunt multiplicanda præter necessitatem.* You know that this is not a new doctrine. Many years ago it was maintained very ably by Beau. Sir Andrew Clark arrived at the same conclusion by a different path—by noting how one and the same cause, hay fever, produces sometimes coryza, sometimes asthma, and sometimes both together. Which element of the catarrh, defluxion or swelling, obstructs the tubes is a question which naturally arises. The interesting observations of Lefèvre, published more than 60 years ago, upon the expectoration of peculiar mucous cylinders, which he compared to cooked vermicelli, towards the end of an asthmatic attack render it very probable that both secretion and swelling concur to obstruct the bronchia. But there remains another and much deeper question which concerns the asthmatic tendency—in what does it consist? Why are some persons prone to asthmatic catarrh and others not? Why does the disposition run in families? What is the bond which in so many cases connects the several diatheses of asthma, eczema, and gout?

For the solution of such problems as these, and for the advancement of all medical learning, may a succession of men like Harvey and Willis never be wanting to our venerated College.

IS PETROLEUM EMULSION OF ANY NUTRITIVE VALUE?

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THERE can be no doubt that in recent years petroleum emulsion has crept into use as a substitute for cod-liver oil in the case of patients who are unable to take the latter. Now, petroleum belongs to the paraffin series—that is to say, to a set of substances which are characterised by the great opposition which they offer to chemical change. One would not, therefore, expect on *a priori* grounds that petroleum would be capable of assimilation in the body. In order to put the matter to practical test I recently carried out some experiments on the absorption of petroleum emulsion by man, the results of which entirely confirmed the suspicions which one had entertained on chemical grounds, and lead to the conviction that petroleum is of absolutely no use at all as a substitute for cod-liver oil. It is the object of this paper to describe these experiments and the conclusions to be drawn from them.

I employed a well-known and widely advertised emulsion of exceedingly pure petroleum. It was found that 30 c.cm. of it, when mixed with charcoal and evaporated to dryness, yielded on extraction with ether 7 grams of semi-fluid petroleum; 30 c.cm. represents about 3 dessertspoonfuls, which is the usual daily dose of the emulsion in question. I next proceeded to administer this dose to a healthy man with the object of ascertaining how much petroleum one could recover from the fæces. In the first experiment the subject was placed on a constant diet containing a moderate amount of fat. The fæces were collected daily, mixed with animal charcoal, and evaporated to dryness. The product was then extracted with ether in a Soxhlet's apparatus and the extract weighed. The results are contained in the following table:

First Experiment.

	Weight of Ether Extract.
Total fæces of three days without petroleum	7.1 grams.
Total fæces of three days on 30 c.cm. petroleum emulsion per day	32.7 „
Difference ...	25.6 „

That is to say, the administration of three dessertspoonfuls of petroleum emulsion daily had increased the ether extract of three days' fæces by 25.6 grams, although the diet was exactly the same as on the three previous days. The appearance of the extract was also quite different for the two periods. That of the first three days was solid and waxy, while that of the three petroleum days was semifluid in consistence.

In order to recover petroleum free from fat the ether extract was saponified by boiling with alcoholic potash solution. The residue was diluted with water, shaken up with ether in a separation funnel, the ether evaporated, and the residue weighed. The total 32.7 grams yielded on this treatment 21.6 grams of semifluid petroleum. Now 7 grams of petroleum had been administered on each day, so that 21 grams had been given, and 21.6 were recovered. The apparent excess found was probably due to the presence of traces of soaps.

In the second experiment no attempt was made to regulate the diet. Thirty cubic centimetres of the emulsion were administered on one day, and the fæces of the three succeeding days extracted with ether, and the extract saponified as above.

Second Experiment.

	Ether Extract.
First day (no petroleum)...	3.5 grams.
Second day „	4.1 „
Third day (30 c.cm. emulsion)	4.3 „
Fourth day (no petroleum)...	7.6 „
Fifth day „	6.9 „

On saponification, the extract of the fourth day yielded 4.5 grams of petroleum. The extracts of the third and fifth days yielded together 2.6 grams. The total amount of petroleum recovered was thus 7.1 grams, while the amount contained in the 30 c.cm. of emulsion given was 7 grams. The results of this experiment, therefore, entirely confirm those of the first.

From these experiments it may reasonably be concluded that petroleum is not absorbed in the human intestine and I consider, therefore, that it can in no wise be regarded as a food or a substitute for cod-liver oil.

Nor do I suppose that petroleum has any remote action, say, upon the lungs. It is conceivable that if crude petroleum were employed, some of the volatile substances contained in it might enter the blood and be excreted by the mucous membrane of the air passages, but the purer the petroleum used the less chance is there of any such occurrence.

Whether petroleum may have any value as a local application in intestinal diseases must be left undecided. One can imagine that there may be conditions of the intestinal mucous membrane in which the administration of petroleum might be of value in the same way as the application of vaseline to the skin, by forming a sort of pellicle on the intestinal surface.

In one sense, also, it may be regarded as an artificial intestinal mucus, and it might in that way have some value in certain forms of constipation. It is also worth considering whether it might not be a useful vehicle for the administration of intestinal antiseptics. Carbolic acid dissolves in it, and if the petroleum prevented the absorption of the acid it would also bring the latter into intimate mixture with the intestinal contents, and act as a sort of internal "carbolic vaseline"; but that part of the subject would require special investigation by experiment. My only object at present is to point out that petroleum, even when given in the form of emulsion, is not absorbed at all, and as a consequence can have no nutritive value.

CARCINOMA OF THE TONSIL.

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CASES of primary epithelioma of the tonsil are comparatively infrequent, but they are not so rare as was at one time supposed. The following case seems to me to have some points of interest.

Mrs. W., aged 60, consulted me in June, 1898. There was a well-defined swelling about the size of a pigeon's egg at the angle of the jaw, and extending up behind the ramus on the right side. On examining the pharynx, the right tonsil was found enlarged and its surface ulcerated; the uvula was pressed upwards and to the opposite side, and the right anterior pillar and adjoining surface of the soft palate were hyperæmic and swollen. There was no involvement of the tongue.

She gave the following history: In March a swelling at the angle of the jaw on the right side was noticed, and shortly afterwards she accidentally discovered that the right tonsil was inflamed and ulcerated. There was no difficulty in swallowing and no complaint of pain. She stated that though never a strong woman, she had suffered from no definite ailments. It may be noted that her mother died of "cancer of the breast," and a brother died of a "tumour on the right side of the chest" at 40 years of age.

As the swelling was regarded as malignant, a portion of the tonsil was removed and sent to the West of Scotland Clinical Research Laboratory, where the diagnosis of its malignancy was confirmed.

The report states: "Sections were cut vertical to the surface by the paraffin process. The growth is carcinomatous. The sections consist of irregular solid masses of cells, of large size, and clearly epithelial in nature, embedded in a rather scanty fibrous stroma, which is well formed and carries numerous blood vessels. Beautiful karyokinetic figures are seen in considerable number in the epithelial cell masses, which may be regarded as indications of active growth. The edge of the section corresponding to the free surface is partly ulcerated, partly covered with the usual stratified squamous epithelium of the fauces."

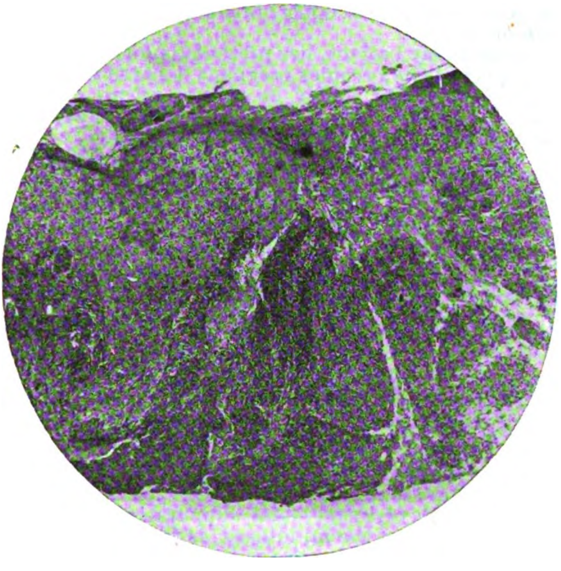

Fig. 1.—Section showing the ulcerated surface and epithelial cell processes—fibrous stroma scanty. × 25.

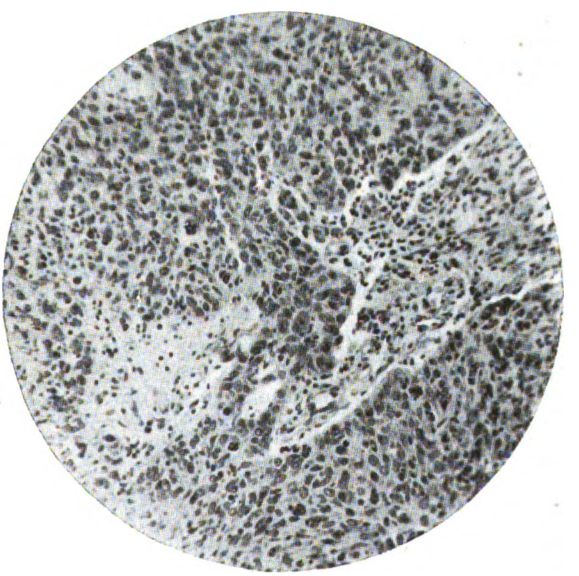

Fig. 2.—Section showing two of the cell processes and a broad band of fibrous stroma. × 150.

At first she absolutely declined all operative treatment, but as the tonsil enlarged and pressed up the soft palate it gave rise to a little difficulty in swallowing. On four different occasions portions of the tonsil have been removed, which has always afforded the patient relief.

In the diagnosis of malignant disease of the tonsil, as of the larynx, pain is one of the prominent, and as a rule one of the early, symptoms. In the present case, though there has been at times a slight difficulty in swallowing, pain has not been a characteristic symptom. About a fortnight ago she complained of acute pain shooting up to the right ear, but this only continued intermittently for a few hours, and has not since recurred.

I am indebted to Dr. J. H. Teacher for the microphotographs.

A NOTE ON FIBRO-ADENOMA OF THE MALE BREAST.

By R. GLASGOW PATTESON, B.A., B.Ch.Univ.Dub.,
Fellow and Examiner in Surgery, Royal College of Surgeons, Ireland
Surgeon to the Meath Hospital and County Dublin Infirmary.

Deviations from what Sir James Paget has happily termed the "chronometry of disease" are always of pathological as well as of clinical interest; and every case which serves to elucidate or exemplify this phenomenon is therefore deserving of record from a twofold standpoint. Some years ago I published[1] two cases of this affection occurring in girls under the age of puberty, being up to that time the only recorded cases; but until quite recently no example of this neoplasm in the male breast had come under my observation.

J. G., aged 24, a labourer, was admitted into the Meath Hospital on October 8th, 1898, suffering from a small and painful tumour in the left breast. He stated that almost twelve months previously he had begun to feel an occasional stinging pain in this region, which he thought was due to the rubbing of his braces whilst working. He accordingly dispensed with this means of support, but found that no relief from the pain was experienced, and soon afterwards he noticed just under the nipple a small hard kernel about the size of a pea. As this had gone on slowly increasing in size and becoming more painful, he was advised to come up to town for further treatment.

Condition on Admission.—A small tumour about the size and shape of a bean could be felt lying immediately below the left nipple and areola, adherent superficially and with only limited mobility over the underlying tissues. It was painful and extremely tender to the touch, so that the rubbing of the clothes caused constant discomfort, and it was at first thought that possibly some active inflammation might have supervened on a more chronic process.

Treatment.—On this chance glycerine and belladonna were applied under hot fomentations for some days, but without affording any relief. Accordingly, on October 17th, I removed the tumour, which was deeply attached to the pectoral fascia; and in the surrounding fat a similar small but quite separate growth was found, which was also taken away. The wound healed by first intention; the sutures were removed on the fourth day, and the patient was discharged four days later.

On fresh section the little growth presented appearances identical with those found in the two previous cases—dense greyish bands of fibrous tissue, among which the remains of glandular tissue could be easily differentiated with a pocket lens. It was handed to Professor O'Sullivan, of Trinity College, who kindly examined it, and reported it to be a typical fibro-adenoma in which the arrangement of the glandular epithelium conformed mainly to a tubular type.

Mr. Roger Williams[2] gives references to several recorded cases of this affection, though no mention is made of it in Mr. Marmaduke Sheild's later work;[3] and it seems, therefore, as if its occurrence justifies one in calling the attention of surgeons once more to the condition, and urging at the same time the collection of any cases which may come under observation.

References.

[1] *Journal of Anatomy and Physiology*, vol. xxvi, July, 1892, p. 509. [2] *Diseases of the Breast*, London, 1894, p. 510. [3] *Diseases of the Breast*, London, 1898, pp. 482, 599.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

TYPHOID POISONING AND SEWER GAS.

The following is an interesting pendant to Mr. Gifford Nash's series of cases of sewer-gas poisoning published in the British Medical Journal of January 28th.

In 1890 a cook was admitted into the British Hospital, Buenos Ayres, under my care, suffering from typhoid fever, and was shortly followed by the housemaid, who had temporarily assumed her duties. For weeks neither had been beyond the garden of the well-appointed house where they were employed; the water supply was not under suspicion, and the milk came from cows kept on the premises. Both complained of a horrible smell from the scullery sink on first coming down in the morning, which smell each had stopped for the day by running a little water down the waste pipe. On examination, a leak was found in the U-tube of this waste pipe in the ground outside the scullery wall. This waste pipe emptied into a hermetically-sealed and unventilated cesspit, which also received the outflow from the well-trapped servants' watercloset. The servants some short time before had been visited by a friend suffering from diarrhœa, who had used their watercloset. I found this friend convalescent, in the German Hospital, from what had almost been a case of ambulant typhoid, and was not surprised, a few days later, to receive, also suffering from typhoid fever, the third servant who had acted as cook over the drain before it was put right. A new trap having been supplied, and the cesspit disinfected and ventilated, my series of cases of typhoid poisoning from sewer gas ended with the third.

Reigate. F. WYATT-SMITH, M.B., B.C.

VENESECTION IN CEREBRAL HÆMORRHAGE.

CEREBRAL hæmorrhage is a not infrequent accident in the most active period of life, and at present far too fatal. I have recorded in the BRITISH MEDICAL JOURNAL some years since the successful use of venesection. Freely and promptly done, this alone may often save life. It is especially in the case of energetic, full-blooded persons that the attack occurs, almost without warning. The ingravescent symptoms clearly point to increasing effusion and pressure on the brain. Hours may pass before consciousness is lost. The direct effect of a considerable blood-letting in lowering the arterial tension counts for much; but its indirect tranquillising effect on the circulation—well seen in small venesections in the case of febrile disease—is no doubt still more important. And, considering the otherwise fatal tendency of this form of cerebral hæmorrhage and the ease and safety of venesection, I think it should be always and at once resorted to.

London, W. R. FORTESCUE FOX, M.D.

VAGINAL FIXATION OF THE UTERUS.

IN May, 1898, I first saw Mrs. B., 3-para, aged 27. She complained of constant sacral pain with menorrhagia, and latterly of an almost continuous slight hæmorrhage. I found an acutely retroflexed tender uterus, incarcerated by swelling under the sacral promontory. I was unable to replace it digitally in any position of the patient. I therefore put her to bed, and placed her for a fortnight on ergot, hot douching, and glycerine plugs, with a view to reducing the congestion of the fundus. I was loth to pass a sound, in view of the possibility of conception. However, as irregular slight hæmorrhages continued, I did so, but was unable to replace the uterus by gentle manipulation. Under an anæsthetic, however, I readily replaced it with the sound, the incarceration being probably due, in large measure, to the contraction of the muscular fibres in the utero-sacral ligaments. I curetted the endometrium, in view of its probable congested condition, and I kept the cervix backwards by means of a vaginal tampon, as the uterus had a tendency to spring back to its old position.

After a suitable period in bed, I put in a Hodge pessary, and allowed the patient to get up. She now had no hæmorrhage, but painful menstruation and constant backache remained. During the next three months, I tried every conceivable shape of pessary (except the stem), but invariably found, the day after its insertion, that the fundus was sagging behind the top bar of the pessary. Although the fundus was usually jammed, it could now always be replaced by posture and digital manipulation. The patient was not a neurotic woman, and fought against her trouble; but the constant sacral pain was making her life a misery, and each month saw an exacerbation of it. The only rational method of treatment remaining seemed to be fixation of the uterus, and on my putting the matter clearly before her, the patient readily consented to a radical cure.

In August, 1898, I performed vaginal fixation, assisted by my partner, Dr. A. C. Mackenzie, by Dührssen's method of anterior colpotomy, inserting three silkworm-gut sutures. he made an uninterrupted recovery. It is now nearly six onths since the operation; she is quite free from sacral pain, her periods are normal in every respect, and she looks, and is a different woman. The uterus is in a position of anteversion.

The operation of vaginal fixation is one which finds little favour either on this Continent or in America, Alexander's operation being preferred. I was always taught, however, that the latter had little to recommend it; and I certainly think that, except in skilled hands, it must be fraught with many difficulties and dangers, even if its ultimate results are good. Whereas vaginal fixation presents no great difficulty to anyone who has had opportunities of seeing much operative gynæcology.

As regards my patient, her present condition is ideal. What will happen if she becomes pregnant I cannot say. Perhaps at some future date I may be able to record the sequel. I should be glad to hear from others who have met with difficulties in labour after this operation.

EDWIN TEMPLE SMITH, M.B., M.R.C.S.Eng.

Mount Morgan, Queensland.

REPORTS
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

MONSALL FEVER HOSPITAL, MANCHESTER.

SCARLET FEVER, AND INTRACRANIAL SUPPURATION OF RHINITIC ORIGIN.

(By A. J. TONKIN, M.B., Assistant Medical Officer to the Hospital.)

THE occurrence of intracranial suppuration in scarlet fever, following disease of the middle ear, is fairly common, but the rarity of its incidence in the same disease, but following diseases of the nose, merits a description of the two following cases which have recently occurred in this hospital.

CASE I. *Clinical History.*—G. M., aged 5 years, was admitted on June 16th, 1898, suffering from an attack of scarlatina anginosa, which progressed favourably, the temperature falling to normal by the 30th, and the throat and gland symptoms clearing up entirely. On July 8th severe rhinitis appeared, and on the 12th double otitis, both continuing until death. On August 3rd the temperature began to rise irregularly until it reached 103.6° on August 12th, the day on which death occurred. Until August 5th the urine had remained normal; on that day a cloud of albumen appeared, and the urine became scanty, averaging from 2 ounces to 10 ounces daily. On August 8th the patient complained of frontal headache, which symptom continued with increasing severity until death. On the morning of August 12th the patient's head was very strongly retracted; the face was turned to the left, and there were some general convulsions. Towards evening he gradually became comatose and died.

At the necropsy an abscess about the size of a walnut was found in the substance of the left inferior frontal convolutions, limited by and involving the pia mater. The inner surface of the dura mater was perfectly smooth and bright, and the subdural space contained neither pus nor lymph. There was no osseous erosion at any point, and no pus was observed in any of the foramina. The rest of the brain, its membranes, and the calvarium were in a healthy condition. There were no lesions in any other part of the body, with the exception of slight scarlatinal nephritis.

REMARKS.—That the source of infection in this case was the nose may be judged from the position of the abscess over that cavity, which at the time contained and was discharging infective matter, and also by the fact that the rest of the calvarium and its contents, and of the body generally, were healthy, thus excluding all the usual causes of cerebral suppuration. And inasmuch as the cribriform bone and the dura mater on its outer and inner surfaces were found to be healthy, it must be inferred that the infective organisms travelled from the nasal cavity along some minute route not observable by the naked eye, such as some minute venous trunk, the perineural fibrous sheaths, or some small lymphatic vessels.

CASE II. *Clinical History.*—W. H. W., aged 6½ years, was admitted on November 17th, 1898, suffering from an attack of scarlatina. He died on December 11th. The original attack progressed quite favourably. On November 22nd left otitis appeared, and continued with lessening severity until death, at which time, however, it had almost ceased to exist. Rhinitis was present from the commencement of and throughout the attack, but was never a very marked feature. On December 6th the patient began to complain of frontal headache, which symptom continued until death. On December 7th albumen appeared in the urine. During the evening of December 5th there was a sudden rise of temperature to 102.4°, which was maintained until death. Just prior to death the head was strongly retracted, the face was persistently turned to the left, the pulse was irregular, full, soft, and rapid, the pupils were equal, and there was gradually increasing coma until the fatal termination.

At the necropsy a general lepto-meningitis was discovered. The dura mater was normal, and there was no pus in the subdural space. There was greyish-yellow lymph in the sulci of the brain generally and round the nerve roots; it was in greatest amount on the inferior and superior surfaces of the frontal lobes, and least about the sphenoidal lobes. There was an excess of fluid in the ventricles. There were no osseous erosions anywhere in the calvarium. The petrous portions of the temporal bones were removed and carefully examined, and were found normal. The Schneiderian membrane was congested and swollen. No evidences of tuberculous nodules were observed about the basal meninges. The rest of the body and its organs were found in a normal condition.

REMARKS.—With the exception of the disease in the nose and ear all the usual causes of lepto-meningitis may be excluded. Thus, the infection must have come either from the left ear or the nose, both of which parts contained infective matter when the meningeal symptoms set in; but the left otitis had almost ceased before the meningitis commenced, and the petrous bones were found normal on examination; if the left otitis had been the cause the disease would probably have been unilateral and the left sphenoidal lobe would have been most affected, whereas it was least. It is probable that the nose was the source of infection, as the nasal cavity contained infective matter, and the frontal lobes were affected more than any other part of the brain. In this case the channel of infection was probably similar to that in the former case, and each is an example of intracranial suppuration in scarlet fever without osseous erosion.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

CHARLEWOOD TURNER, M.D., Vice-President, in the Chair.

Tuesday, March 21st, 1899.

EXPERIMENTS UPON THE TOXICITY OF THE URINE.

DR. W. P. HERRINGHAM gave an account of a series of experiments upon the toxicity of the urine. He recalled the fact that since disease of the kidneys had been known to be a cause of death, this effect and the general group of symptoms to which the name "uræmia" was given had been till recent years universally, and was still commonly, supposed to be due to the retention of waste products. In the last few years a second theory had sprung up which explained uræmia by the loss or perversion of an internal secretion, but the evidence for this was as yet insufficient. Yet the common belief could never point to a definite poisonous constituent of the urine. Urea, uric acid, all the known organic bodies which the urine contained, had been injected into the circulation in excessive quantities without producing the symptoms. In default of any satisfactory explanation by these means pathologists had been driven to other theories, first that of cerebral œdema championed by Traube, and, when this fell to the ground, secondly, theories which ascribed uræmia not to a constituent of the natural urine, but either to a body produced by decomposition of the retained urine within the body, such as Frerichs's ammonium carbonate, or more recently to a precursor of urea such as the salts of carbamic acid, which were put forward by Nencki and others on experimental evidence. Fresh light was thrown upon the subject by the experiments of Feltz and Ritter in France, and Astaschensky in Russia, who injected urine itself into the circulation. They ascribed the fatal effects of these injections chiefly, or even entirely, to the potash salts. Their experiments were repeated by Bouchard, of Paris, who denied the sufficiency of the potash salts on several grounds, ascribed a partial toxicity by a kind of division of labour to all the constituents of the urine, and supposed seven different poisons to exist in the urine, each productive of a special symptom. Bouchard further found the urine of sleep less toxic than that of day, and more convulsant in its effect, and was led to form a theory of sleep according to which men by day secreted a body possessed of narcotic properties which by its accumulation induced sleep, while during sleep this gave place to another substance of a convulsant nature which, by inducing muscular movements, led to waking. The speaker had been engaged during the last three years in repeating these experiments, and during the same time Beck in Germany had been similarly occupied. Their conclusions, so far as their work had overlapped, were similar. Bouchard's conclusions rested upon no chemical analysis, but upon physiological symptoms alone. He had produced not one of the bodies whose presence he asserted, and had not even observed the presence, the variation, of those bodies known to exist in the urine. For instance, while denying the sufficiency of potash salts, he gave no quantitative analysis of the amount contained in the urine. Furthermore, in many respects neither Beck nor the speaker was able to confirm his account. The urine of sleep, for instance, was not in their experience more convulsant than that of day. Thirdly, the variation of rabbits, which were the animals upon which Bouchard experimented, was so great that the differences upon which Bouchard relied were within the error of this variation. The speaker's work had been carefully to observe the symptoms induced in animals by these injections, and then to make quantitative analyses of the various constituents of the samples of urine. By this means he reached the conclusion that none of the constituents but potash varied with the toxicity of the urine, and, after making a necessary modification of the classical method of potash analysis in urine, he was able to show so close a parallel between the two that he had no doubt that potash was the only cause of the fatal result. In every instance there was sufficient, and in nearly all much more than sufficient, potash to produce death. The lesser toxicity of the urine of sleep was simply owing to a lesser excretion of potash. Diagrams showed the relation of various other urinary constituents and of potash, and also illustrated the extent of variation in rabbits, as evidenced by cases in which a pair of rabbits had been treated with the same sample of urine. The difference between the two animals was never less than 6 per cent., and ran up to 52 per cent. The symptoms of animals thus injected were myosis, drowsiness, lowering of blood pressure from cardiac failure, retardation and embarrassment of respiration, loss of body heat, and, finally, fatal convulsions. The resemblance of these to uræmia was evident, but no conclusion could be drawn thence until clinical investigations had followed up the suggestion of experiment. Since the degree of toxicity of the urine was merely an inexact way of stating its content in potash salts, injection experiments on animals could not take the place of quantitative chemical analysis. Bouchard had laid down a standard of excretion for the normal adult man, but the speaker had found that the normal varied under ordinary conditions (and still more under conditions of light diet and rest in bed) too widely to admit of any useful comparison in disease unless by a long series of observations on each patient. Isolated estimations were quite useless. Lastly, Bouchard had rested his theory of auto-intoxication largely upon the conclusions drawn from urinary toxicity. Auto-intoxication was a word of confused meaning, comprising, first, cases of perversion or loss of the internal secretion of a gland, of which the only proved instance was that of the thyroid; secondly, cases of perverted metabolism during primary or intestinal digestion with absorption of the abnormal products; and thirdly, similar processes occurring during the hepatic, or even during later, stages of assimilation, both of which were purely hypothetical. Urinary toxicity being due to potash salts, could not lend support to the autointoxication under either of these three meanings.

The **Chairman** observed that in uræmia as observed clinically the case should not be regarded so much one of the absorption of urine as one in which urine was not formed; nor did he think that the injection of urine into the circulation was strictly comparable to the slow absorption of urine which took place after the blockage of a ureter. The clinical symptoms of uræmia and of urinary suppression, moreover, did not coincide.

Professor **Rose Bradford** could confirm the author's account of the symptoms resulting from the intravenous injection of normal urine. Bouchard had stated, amongst other things, that the urine lost toxicity in cases of uræmia; this was not correct. Both the blood (drawn by venesection) and the urine in acute uræmia were toxic upon rabbits and dogs. The speaker had not asserted that the results arising in animals from the partial removal of kidney were due to the loss of an internal secretion; what he thought was that a disturbance arose in nutrition after such experiments, but the explanation of which was still to be given. Uræmia, in its clinical sense, he did not hold to be due to the retention of any normal constituent of the urine, for the reason that no experimenter had yet succeeded in producing it. The removal of the kidneys was followed not by "uræmia," but the symptoms witnessed in suppression due to calculus, though he did not deny that such symptoms might in rare cases be combined with those of "uræmia." The most striking fact in cases of calculous suppression was that the patient retained consciousness and reason till the last. He had described a rare case of complete cortical necrosis of the kidneys in the human subject, and here there was not "uræmia" but the condition seen in calculous obstruction, Sir William Roberts's "latent uræmia." The symptoms of uræmia, the speaker thought, would probably prove due to the retention of abnormal and not normal urinary constituents.

Dr. **Herringham**, in reply, also held that the symptoms resulting from the injection of urine in animals were not those of proper uræmia. He hardly thought there was a hard-and-fast line between uræmia and the results of suppression. The toxicity of normal urine was due to its potash salts; but he did not hold that uræmia was due solely to a want of excretion of these.

Epithelial Tumours of the Forehead.

Dr. **Radcliffe Crocker** recorded the case of a female child, aged 10 years, who presented many small spherical growths on the forehead, varying in size from a hempseed to a pea; they did not appear to be actually congenital, though noticed first at an early age. Two of the largest were excised, after which the others diminished, but further tumours made their appearance. Histological examination showed a gland-like or lobular arrangement of epithelial cells having the characters of those seen in rodent ulcer; the source of the growth could be traced to the ducts of the sweat glands and to the hair follicles. Nevertheless, in clinical characters, he considered the growths as benign. There was a history of injury in the case, and this the author considered to have started the growths, which possibly arose in fœtal residual elements of the skin.

Mr. **Raymond Johnson** referred to two flattened plaques of new growth in different cases, one from the shoulder the other from the buttock, both of which presented the histological characters of rodent ulcer.

Diffuse Syphilitic Change in the Liver.

Dr. F. **Parkes Weber** showed sections from the liver of a man, aged 47, the subject of advanced tertiary syphilitic disease of the testes, etc., who died with cerebral hæmorrhage. The liver was somewhat enlarged (weight 67 ozs.), and though it showed no distinct gummata or scars resulting from gummata, presented a diffuse, more or less generalised, fibroid change. Microscopic sections showed that this change might be regarded as the result of a "pericellular" or "pericapillary" cirrhotic process, such as had been more frequently recorded in connection with congenital syphilis than with the acquired disease. What Dr. Parkes Weber specially drew attention to was a tendency in the present instance and in some analogous cases for the fibrous change to be most advanced in the central portions of the acini, and least noticeable around the portal spaces. The best preserved glandular cells were those at the periphery of the acini, precisely those which were most likely to be encroached upon in ordinary cirrhosis. The fact that the middle and inner zones of the acini were the most affected, just as they were respectively in amyloid disease (which was absent in the present case) and chronic passive congestion, suggested that the harmful process in diffuse syphilitic disease of the liver was connected rather with the minute branches of the hepatic artery than with those of the portal vein. An analogy was drawn between the change pointed out by Dr. Weber in the liver, and the change observable in those cases of cardio-sclerosis ("chronic myocarditis") in which the fibroid degeneration of the muscle fibres was chiefly manifest in the portions of the myocardium furthest removed from the arterioles which supplied the blood.

Card Specimens.

Dr. **Parkes Weber**: Lipoma of Kidney.—Mr. **Cecil Beadles**: Ruptured Heart; Hæmorrhage into the Adrenal.—Dr. H. D. **Rolleston**: Simple Ulceration of the Stomach.—Mr. **Raymond Johnson**: Rodent Ulcer from the Shoulder.

HARVEIAN SOCIETY OF LONDON.

Henry Juler, F.R.C.S., President, in the Chair.

Thursday, March 16th, 1899.

Modern Views on Gout in Relation to Treatment.

Dr. **Mouillot** (Harrogate) read a paper on this subject. He said gout was accompanied by the presence of uric acid in the form of quadriurate in the blood in recognisable quantity, and that it deposited in the tissues in the form of sodium biurate owing to the action of the serum salts, particularly sodium chloride. He argued that the presence of an abnormal quantity of uric acid in the blood must be due to a loss of the balance between production and excretion, and that as in gout rather less than the normal amount of uric acid was eliminated in the urine, it was necessary to assume that there was a relative inadequacy on the part of the kidneys to eliminate all the uric acid formed, whether in excessive quantity or not. Although believing that this relative inadequacy was a necessary concomitant of gouty deposit, Dr. Mouillot did not believe that the kidneys were solely at fault or that uric acid was produced, as well as excreted, by those organs. Dr. Luff's argument that if uric acid were made elsewhere it must be carried to the kidneys by the blood was doubtless a strong one, and his failure to find uric acid, even in the blood of birds, was a strong point in favour of the renal origin of uric acid, but Dr. Chalmers Watson's recent investigations, which showed that uric acid was present in the blood of birds, were opposed to Dr. Luff's negative evidence. Minkowski's experiments on geese were strongly in favour of the hepatic origin of uric acid, which origin was also strongly supported by clinical evidence. The assumption that the kidneys were sufficiently healthy to perform a synthetical process and not healthy enough to eliminate the substance formed, was not so rational as that the failure on the part of the kidneys was in the power to eliminate uric acid made elsewhere. Besides both the supposed antecedents of uric acid, urea and glycocine were made in the liver, and it was probable that their conjugation took place there also. Dr. Mouillot believed that the proximate cause of the gouty state lay in a defective metabolism of proteids due to a functional disease of the liver or intestinal glands, and that the deposit of sodium biurate was due to deficient elimination by the kidneys owing to a diseased condition, or through their action being inhibited by an impure condition of the blood. He took Sir William Roberts's view as to the deposit of sodium biurate being the cause of the articular symptoms and many of the non-articular symptoms. In the differentiation of gout from rheumatism stress was laid on the condition of the fingers, and also on the deposit so often found in the conjunctival surface of the lower eyelid. In speaking of the treatment, Dr. Mouillot argued from the action and success of colchicum that the objects aimed at should be to diminish the quantity of uric acid formed, and stimulate the intestinal glands and liver, whilst endeavouring to remove all the uric acid formed through the excretory organs. Colchicum probably acted by its effect on the liver and intestinal glands, which increased the quantity of bile, thus removing in the form of glycocolic acid one of the antecedents of uric acid. Colchicum completely met the indications in acute gout. Chronic gout and goutiness must be treated mainly by diet and periodic visits to watering places. The main points in diet were to drink fluid freely apart from meals, and to make the meals as little complex as possible. Stimulants should never be taken except at meals on account of their effect on the liver. As to watering places, Dr. Mouillot considered that British spas were sufficient for every purpose, and that the medical man was as important as the place. He considered that Sir William Roberts's objection to spas the waters of which contained sodium salts, and his preference for indifferent waters, was unfounded. With respect to Harrogate, it was found that a full course of treatment by the waters reduced the amount of uric acid, whilst increasing that of urea, eliminated. Dr. Mouillot concluded by reading notes of the only two cases of acute gout which had occurred in his practice whilst the waters were being taken. One case was remarkable in that the patient had never tasted meat in his life, and lived entirely on milk and vegetables.

Dr. **BEZLY THORNE** particularly wished to emphasise his conviction that granular kidney was a cause neither of gout, high tension, nor heart affection. All three he believed to be consequential expressions of a general condition of blood impurity, in the maintenance of which a chronic gastroduodenal catarrh, bringing in its train pancreatico-hepatic obstruction and gastro-intestinal fermentative changes, was the fundamental cause. The gastro-duodenal factor might possibly have much to do with the part which the liver played in the uric acid diathesis. Dr. Thorne thought that he could not better indicate his views as to the relation which diet bore to the toxæmia, of which uric acid was one of the most easily recognised but probably by no means the most active agents, than by giving his own personal experience. Starting with the worst possible inheritance as to uric acid, some sixteen years ago he became subject to tender nodular enlargements on the bones, mainly of those of the hands and feet, as well as of the articular ends of the clavicles. Soon he had to abandon the use of the phalanges of the left hand as pleximeters in percussion on account of the periostitis which it induced. Migraines, which had recurred at rare intervals, became more and more frequent, until they disabled him two or three times a week. All this time there were evidences of biliary obstruction or inhibition, and the daily evacuation of considerable quantities of uric acid. The failure of his health culminated about thirteen years ago in two attacks of what would now be probably called appendicitis, an affection which he believed to be intimately associated with that condition of the digestive tract characteristic of the uric acid diathesis. While laid aside with the second attack he became convinced that a gastro-duodenal condition identical with that which had been denominated "mucous disease" and "cœliac disease" of young children was the causative factor of his own ill health, and he resolved to effect a revolution in diet and treatment. From the beginning he had abandoned all wine and sweets, taken almost daily a dose of saline aperient, and one of calomel once or twice a week, and for more than a year not one shred of butcher's meat had passed his lips. As soon as the subsidence of the acute symptoms allowed, he adopted a diabetic dietary, forswore saline aperients, and took to drinking about two pints of water, generally warm, at such times as would not interfere with gastric digestion, instead of vainly trying to quench thirst with draughts of effervescing mineral waters, and in about three weeks returned to a state of health which he had not known for years, and, moreover, had maintained in increasing degrees ever since. It was, he said, necessary to add that he had treated the condition of the digestive organs with preparations of bismuth and of soda, and that he had found it necessary to maintain that treatment during the greater part of the seven succeeding years in order to prevent relapse. He had now for many years treated his patients on the same lines and with scarcely varying success, and, for that reason, he was inclined to regard the embargo on sodium salts as a bugbear based on laboratory experiments rather than on clinical observation. One of the secrets of success be believed to be the enforcement of simplicity of diet, because the stomach of a gouty patient could deal effectually with a meal of animal food and succulent vegetables, but would utterly break down in the effort to digest half-a-dozen kinds of food at the same time. Monotony of diet also had its drawbacks, and occasionally he found it necessary to place an inveterately gouty patient on an exclusively milk or vegetable diet for a few days or a week, in order to give the stomach a change of digestive function.

Dr. A. P. **LUFF** urged the importance of avoiding the use of salicylic acid or sodium salicylate in the treatment of gout, since it was not only useless, but in many cases he had found it do positive harm. He entirely supported Dr. Mouillot's statement that many gouty people drank too little, and especially he had found this to be the case with female gouty patients, in whom the total amount of daily fluid consumed would frequently average not more than 18 to 20 ozs. He thought that his investigations on the influence of alkalies on the solubility of gouty deposits had been misunderstood by many medical men. He had never advocated the abandonment of alkalies in the treatment of gout. What he had shown was that alkalies and their congeners were useless when administered with the object of dissolving gouty deposits, but he frequently employed alkalies in the treatment of gouty dyspepsia and of gouty affections of the liver.

Mr. **WM. ARMSTRONG** (Buxton) said with regard to dietary that, as a general rule, a certain amount of butcher's meat was necessary. In a considerable number of cases on a non-meat diet he had observed that although the actual amount of uric acid formed got less, the rate of excretion diminished to a still greater degree. Beef and mutton certainly stimulated the process of excretion. In nearly 100 cases dieted exclusively on minced meat and hot water, there was at first an enormous increase in the quantity of uric acid excreted, which no doubt the advocates of a non-meat dietary would say was conveyed into the system by the beef; but as the gouty troubles improved, the excretion gradually fell to normal although the food was unchanged. In giving red meat to the gouty, it was necessary to cut down as far as possible the consumption of carbohydrates and of milk, and also to insist upon the drinking of hot water one hour before each meal. Fresh vegetables were of the greatest value but they should be well cooked. A separate vegetable course at dinner was most useful. Certain gouty cases could be treated with an equal amount of success either on the lines suggested or by the dietary advocated by Dr. Alexander Haig, consisting mainly of carbohydrates, milk, and fruit, but it was of the first importance that the two classes of food should not be mixed, as in that direction lay disaster for the gouty.

In reply, Dr. **MOUILLOT** said that he was much interested in Dr. Bezly Thorne's experience. It bore out his views that the initial difficulty in gout was a digestive one, and that the gouty were unable to digest all the different classes of food at the same meal. The rigidity of the diet rules must be in proportion to the severity of the symptoms, as a sacrifice which it might be worth while making in a severe case might not be so in a mild one. He said his view was that the true cause of gout was digestive, and that the uratic deposits which were responsible for most of the symptoms were due to subsequent failure of the kidneys, either as a coincidence or caused by the toxic poisoning due to the uric acid, or perhaps other substances. He was quite sure that Mr. Armstrong's practice of calling in the aid of the skin to assist the diuretic action of the Buxton waters was sound, and would limit the number of gouty attacks whilst taking the waters. Dr. Mouillot confessed himself unable to judge of the accuracy of Dr. Chalmers Watson's work which Dr. Luff had so ably criticised, nor, if accurate, did it prove that uric acid was not made in the kidneys, but merely removed a difficulty out of the way of those who held that view.

BRITISH GYNÆCOLOGICAL SOCIETY.

H. **MACNAUGHTON JONES**, M.D., President, in the Chair.

Thursday, March 9th, 1899.

SPECIMEN.

DR. H. **JELLETT** (Dublin) showed a specimen of Myomatous

Uterus undergoing Carcinomatous Degeneration. It was discussed by the PRESIDENT, Dr. INGLIS PARSONS, and Mr. BOWREMAN JESSETT.

THE GERM THEORY OF DISEASE.

Dr. GRANVILLE BANTOCK read a paper on the modern doctrine of bacteriology, or the germ theory of disease, with special reference to gynæcology.

Dr. ALLAN MACFADYEN (Director of the Jenner Institute of Preventive Medicine) said the experimental research of the last ten years did not appear to exist for Dr. Bantock, nor had he brought forward one word of proof for the statements he had made. It was difficult to appreciate or to deal with such an attitude of pure negation, and he therefore felt it would be useless on his part to bring forward in connection with such a paper the remarks he had intended to make on the bacteriological questions pertaining to asepsis and antisepsis. Dr. Bantock had asked "Where did the germ theory of disease stand now?" He replied that it stood exactly where it did before Dr. Bantock commenced his attack. He would leave it to the members of the Society who were well acquainted with the elementary facts of bacteriology to make their own choice as to whom they would follow—Pasteur, Lister, and Koch, or Dr. Bantock.

Mr. GEORGE STOKER said his own position was midway between the two extreme views; on the one hand, that all micro-organisms in wounds were bad, and, on the other hand, that none were bad He believed that some were harmful and some useful, and in the latter class he included the staphylococcus. It was a perfectly reasonable belief that certain micro-organisms under healthy conditions were good and useful, and that these same bodies under unhealthy conditions were harmful. He had made observations on over 250 cases of ulcers; and, in all, rapidity of healing was in proportion to the presence of the staphylococci.

Dr. R. T. HEWLETT (Assistant Bacteriologist, Jenner Institute) remarked that negative evidence such as Dr. Bantock had adduced was of no value unless overwhelmingly supported. He had stated that as good results were obtained in ovariotomy from the use of ordinary cleanliness as with the most elaborate precautions for asepsis; but he (the speaker) would remark that the peritoneum was exceptional, and would suffer with impunity a treatment which would be tolerated by no other serous membrane. He believed that all attempts to open the knee-joint without the strictest aseptic precautions would end in disaster.

Dr. INGLIS PARSONS said Dr. Bantock's own practice and results contradicted his theory, for he took the most scrupulous care to ensure cleanliness in the nurses, instruments, and his surroundings. When no germs were present, antiseptics were not required. No comparison could be made between a modern hospital like the Samaritan and one of the older hospitals; in the latter, unless strict Listerian principles were adopted, the results were disastrous.

Mr. BOWREMAN JESSETT contended that Dr. Bantock, in his former practice of using sulphurous acid in the treatment of stitch abscesses, and in his present practice of boiling his silk ligatures practised antisepsis and asepsis. Heat was the best disinfectant they had. Would Dr. Bantock explain why he boiled his silk?

Dr. CLEMENT GODSON thought it would be disastrous if Dr. Bantock's paper had the effect of shaking the faith of midwifery practitioners in the employment of antiseptics. In an address which he had delivered to the Society when President, he had shown the marvellous change which had taken place in the City of London Lying-in Hospital since corrosive sublimate had been in use there. Last year, among 565 cases, there had not been a single case of septicæmia. It would be indeed sad to revert to a mortality of 1 in 19, which existed when he first became attached to the hospital; and he had no doubt that the change was due to the thorough way in which antiseptics were now employed.

After some remarks from Dr. MACPHERSON LAWRIE (Weymouth),

Dr. C. H. F. ROUTH referred to the historical part played by Semmelweis in the Vienna Maternity in elucidating the fact that the high mortality among the cases attended by students as compared with the low mortality among those attended by midwives was due to the fact that the students went direct from the *post-mortem* room to the lying-in wards; and he contended that this fact was a strong proof of the germ theory of disease.

After some observations from Dr. P. Z. HEBERT,

Dr. A. W. ADDINSELL (Pathologist, Chelsea Hospital for Women) said he did not think that Dr. Bantock could congratulate himself on his powers of prophecy, because the doctrine of bacteriology held the field at the present day even more triumphantly than twelve years ago, when Dr. Bantock eloquently prophesied its speedy downfall. With regard to Dr. Stoker's experiments, Dr. Addinsell contended that, assuming the facts to be as stated, the correct explanation was that in the wound treated by black wash the mercury had killed not only the staphylococci but also the granulations on which the healing depended. The other ulcer healed because the oxygen favoured the granulations and also diminished the virulence of the staphylococci. It had been proved that a much larger amount of a culture of staphylococci treated by being passed through oxygen was needed to produce ulcers in guinea-pigs than was required in the case of a culture not so treated. The absence of the gonococcus from a pus tube was no argument against the dependence of gonorrhœa on the gonococcus, for it was well known that under given conditions the gonococcus might lose its vitality. When absent from the pus it could still be found in the tissues underlying the pyogenic membrane.

Dr. H. JELLETT (Dublin) thought Dr. Bantock had overlooked two important points: the first was the difference in virulence of bacteria which were morphologically the same; the second was the immunity acquired by patients to the action of a particular form of bacteria as the result of the continued presence in the body of that bacterium. Dr. Bantock said gonococci were found in only one out of every four cases of pyosalpinx, but he (Dr. Jellett) thought that this was a very high proportion if one took into account the number of cases of sterile, of undoubtedly tuberculous, and of presumably septic pus tubes. He would ask Dr. Bantock two questions: (1) Why did he wash his hands even to the slight extent that he did? Was it a mere ritual? (2) If Dr. Bantock had operated on a really septic case, would he operate on a non-septic patient the next day, or would he wait?

The PRESIDENT could not help coming to the conclusion that Dr. Bantock had not made himself fully conversant with the researches of bacteriologists within recent years, or he would have known that the various questions which tended to make him sceptical were by them fully and thoroughly discussed, such as that of the Klebs-Loeffler bacillus in its relation to diphtheria, the presence or absence of the gonococcus, the differentiation of the bacillus typhosus; and, in fact, every question raised by him. The attitude of the British Gynæcological Society to these views should be such that its verdict would be unmistakable, and that the Society could in no way be involved by them.

Dr. BANTOCK, in reply, said he was disappointed at the course the discussion had taken, for no attempt had been made to refute a single point in his paper. All the speakers avoided these points, and while professing themselves followers of Lister showed that they had taken no notice of his latest teaching, but adhered to that of 20 years ago.

EPIDEMIOLOGICAL SOCIETY.

H. FRANKLIN PARSONS, M.D., President, in the Chair.

Friday, March 17th, 1899.

BLACKWATER FEVER OR HÆMOGLOBINURIC FEVER.

MR. W. H. CROSSE, Medical Officer to the Royal Niger Company, read a paper on blackwater fever or hæmoglobinuric fever, a disease that had of late attracted attention through its evidently increasing prevalence, not only in West and East Africa, but also in tropical regions in America, the East and West Indies, and, according to Manson and Plehn, even in the Mediterranean; most frequently attacking Europeans, though not sparing Chinamen or even natives of Africa. It should not be confused, as it had been in the past, with malarial fevers accompanied by renal hæmorrhages and hepatic complications. The increasing prevalence of this disease he would ascribe not so much to the growth of the European population as to the disturbance of the soil in the erection of houses, warehouses, and wharves, and in the extension of coffee and other plantations. The climatic conditions requisite for its endemicity were present in their extreme or typical character in the Niger district—a vast delta of sand and mud, partly covered with jungle and mangrove swamps, intersected by a network of sluggish streams, and leaving at low tide or during the dry season wide tracts of foul mud; the land but little above the sea level, submerged in the wet season, and always with ground water close beneath the surface, was constantly liable to be washed away by the sea or by heavy rains, the rainfall averaging 125 to 150 inches per annum, and sometimes amounting to 4 to 6 inches in one day; the mean temperature 80° F., with diurnal range often less than 10° F. and the air always saturated with vapour, while a heavy mist mostly overshadowed the land. Mosquitos abounded, the air during dry weather being pervaded by the stench of decaying vegetable matter, while fresh meat and vegetables were always hard to obtain. The characteristic symptoms were (1) fever, (2) hæmoglobinuria, (3) jaundice, and (4) nausea and vomiting of bile. The fever was at first indistinguishable from that of an ordinary malarial attack, but on the second or third day a sharp rigor and rise of temperature to 103° or higher ushered in the hæmoglobinuria, which was followed by a fall of temperature towards the normal, any subsequent rise being due to complications. In fatal cases there might be subnormal temperature and collapse, or a continuous rise in spite of daily remissions. The colour of the urine, varying from light red to that of porter, was due to oxyhæmoglobin, to methæmoglobin, or to both. Albumen was always present, bile rarely, red blood cells few in number but renal tubes charged with hæmoglobin abundant; blood discs might appear later from nephritic complications. The jaundice appearing simultaneously with the hæmoglobinuria was peculiar; there was little if any bile in the urine, though much in the vomit and fæces, and itching, slow pulse, etc., were absent. Persistent vomiting of bright green fluid was an almost constant symptom of this disease, others of variable and casual occurrence being constipation followed by diarrhœa, perhaps bloody, pains in the liver, spleen, limbs, or head, numbness of the extremities and hiccough, the end in fatal cases being preceded by dyspnœa, intense thirst, suppression of urine, and coma. Europeans were rarely attacked during the first year of their residence, unless already broken down by malaria, and first attacks after three years' real tolerance of the climate were unusual. Koch's notion that hæmoglobinuria was only a form of quinine poisoning was wholly erroneous, for Mr. Crosse had never known anyone who regularly took quinine as a prophylactic to be attacked by blackwater fever, while he had seen many severe cases among such as had refused or neglected its use. Death was usually through uræmic poisoning or exhaustion, the anuria in the latter being due simply to collapse. The mortality in Nigeria was about 20 per cent. Relapses occurring within a week or so were not rare, and true recurrences or attacks after the lapse of months or years were frequent, each attack rendering a man more susceptible; subsequent attacks might be of equal or greater severity, without fresh exposure and even after leaving the country, but he had never known anyone to be attacked by hæmoglobinuric fever who had not at some former time suffered badly from malarial disease in Africa or elsewhere. This fact disposed of Sambon's notion that it was the same thing as paroxysmal hæmoglobinuria, and there remained two theories of its nature: (1) that the blackwater fever was a specific disease, and (2) that it was a complication of ordinary malarial fevers. Both Plehn, perhaps the very best observer, and the Italians who were at present investigating the question, had found plasmodia, but they were all inclined to the view that there was a plurality of plasmodia and of malarial fevers. As to the hæmoglobinuria, he would suggest that, as in the milder malarial fevers, the parasites completely transformed the hæmoglobin into pigment subsequently deposited in the tissues; or, in the more severe forms, destroying the corpuscles and liberating their contents before they could be thus acted on produced the state known as hæmoglobinæmia. Under ordinary conditions this free hæmoglobin was converted in the liver into bile pigment, the result being a bilious remittent fever, none of the pigment appearing in the urine, but under others, as a chill supervening on a chronic toxæmia and checking the elimination of the toxins, aided, perhaps, by the presence of degenerative changes in the liver, impairing its excretory functions, hæmoglobinuria was the consequence of the accumulation of blood pigment in solution; this phenomenon being, however, the only one common to paroxysmal hæmoglobinuria, chlorate of potash poisoning, and blackwater fever, though brought about by different causes in each. In treatment one must have regard to (1) the chronic malarial toxæmia, (2) the immediately exciting attack of malarial fever, and (3) the sudden loss of hæmoglobin, as after any hæmorrhage. Quinine was a parasiticide but not an antitoxin, and should be given in full doses during the attack, though it would not control the toxæmia or the hæmorrhage. The vomiting, if not also the suspension of absorption, contraindicated administration by the mouth, and the hypodermic method practised in Italy and in America was preferable, the acid hydrochloride or hydrobromide (or the lactate or citrate) being better than the less soluble sulphate; the solution boiled and injected while still warm. The dose should be 10 grs. of the quinine every eight hours on the first and second days and every twelve hours on the third, doses of 5 grs. being continued twice daily till the end of the attack.

Dr. **Manson** believed in the daily dose of 5 to 10 grs. of quinine as a prophylactic, and mentioned the case of a missionary who, during a residence on the West Coast of 14 years had neglected this precaution on three occasions only, and each time had an attack of fever, from which he had otherwise enjoyed exemption. Koch had called attention to the fact that in East Africa negroes who, coming from the interior, lived with and like the Europeans, suffered to some extent, and that generally the natives were immune to the fevers of their own district but not to those of others. It should be remembered that the presence of a parasite did not prove it to be the cause of a disease, and plasmodia were often found in persons suffering from typhoid, since malaria predisposed to, though it had no connection with, enteric fever. In China he had seen many cases of severe malaria and extreme cachexia, but never complicated by blackwater. Either some other factor was required, or the plasmodia acquired different properties according as they had passed through the bodies of one or other species of mosquito. He might mention the case of a gentleman who during a febrile attack after his return home passed black urine, but the colour was shown to be produced by an enormous excretion of indican, neither hæmoglobin nor albumen being present.

Dr. **Harford-Battersby** enjoined caution in diagnosis, having himself observed epidemics in which the urine was almost black from bile pigments and blood, but which were not hæmoglobinuric. That in which Bishop and Mrs. Hill died, with about 50 other Europeans, was true yellow fever. The paludal fevers of Africa were far less distinctly remittent than those of other regions. Blackwater fever was certainly on the increase, but seemed invariably to follow chills, indiscretions, or exposure to excavations. Vomiting was not a constant symptom; he had not suffered thus in any of his three attacks, though he had melæna.

Mr. **Craister** had taken quinine daily during his five years on the Niger, and had only three very slight attacks of fever, and none of blackwater. He had not lost one of the 11 cases of hæmoglobinuric fever in which he had given quinine from the first, or saved one of the 6 or 7 in which he had not, they having been attacked while away up the river.

Dr. **Washbourn**, from his study of paroxysmal and experimentally-induced hæmoglobinuria, could entirely confirm Mr. Crosse's explanation of the phenomenon. At first the liver transformed the hæmoglobin into bile pigment, but when the quantity exceeded the power of the liver the excess passed out by the kidney.

Mr. **Pakes** referred to the Texas fever among cattle, which was attended with hæmoglobinuria, and perhaps also hæmaturia, and in which large doses of quinine were beneficial. The action of habitual small doses of quinine was not exerted on the plasmodia so long as they were enclosed within the blood disc, but when, having sporulated and burst its walls, the numerous progeny of the original plasmodium escaped, they were attacked and killed before they could invade other discs. Already seven varieties of plasmodia had been distinguished by Italian and German investigators, and if only one or two of these had the power of inducing hæmoglobinuria, its geographical distribution, independent of the malignancy of the local malarial fevers, was easily explained.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

PATHOLOGICAL AND CLINICAL SECTION.

JORDAN LLOYD, F.R.C.S., President, in the Chair.

Friday, February 24th, 1899.

TYPHLITIS AND COLITIS WRONGLY DIAGNOSED AS INFLAMMATION OF THE VERMIFORM APPENDIX.

MR. BARLING showed a youth, aged 17, upon whom he had operated a few weeks before. Since August, 1898, the patient had suffered six attacks of abdominal pain with vomiting. The pain commenced always on the right side of the abdomen low down, and lasted from twenty-four to thirty-six hours; constipation was present during the attacks, but at other times there was occasional diarrhœa. When the boy was admitted to hospital there was a fairly well-defined indurated mass to be felt in the outer part of the right iliac fossa, its long axis being vertical, and its upper end disappeared under the margin of the ribs. The diagnosis made was recurring attacks of appendicitis. The abdomen was opened by a vertical division of the skin and aponeurosis and transverse division of the deep structures. The vermiform appendix was found perfectly healthy, free from adhesion, and without thickening. The outer half of the cæcum and the ascending colon as far as the examining finger could reach were found to be hard and densely thickened. There was no adhesion to the internal, anterior, or external surfaces of the bowel, but there was some adhesion posteriorly, and this part was stripped to determine if pus existed, but none was found. An enlarged gland was discovered in the mesentery. The wound was closed without anything further being done, and the boy made a good recovery. He had had no attacks of pain since his admission to hospital, but of course during that time he had practically been in bed. Since the operation the boy's general condition had considerably improved, and the thickening felt before the abdomen was opened had greatly diminished.

ACUTE TRANSIENT GENERAL ANASARCA.

Dr. T. STACEY WILSON read notes of this case. The anasarca exactly resembled that seen in advanced cardiac or renal disease. It commenced suddenly one morning in the feet. In twenty-four hours the legs were swollen and dropsical, but the abdomen was not, although the labia were. During the next twenty-four hours it invaded the upper part of the body and the arms, and the face became so swollen that the eyes could not be opened. By the end of the second twenty-four hours the swelling of the face and hands reached its maximum, but that of the feet and legs had already begun to subside. By the end of four days the swelling had almost entirely subsided. There was no cardiac affection, no albumen or casts in the urine, and there was no evidence whatever of the œdema being due to any inflammatory process in the skin. The œdema was accompanied by a considerable degree of renal inadequacy, as the urine for a time was very scanty and poor in urea, but the œdema did not appear, as in renal dropsy, first in the face, but appeared first in the dorsum of the feet, and reached a high degree there before invading the legs. Similarly the legs and thighs were so swollen that the patient could hardly walk because of their size and weight before the least trace of œdema appeared in the face or hands or in the lumbar or sacral region. For want of some better explanation it was supposed to be of the nature of an urticarial attack, although there was not definite history pointing to a previous attack of urticaria or to any exciting cause.

GANGRENE OF THE LUNG.

Dr. T. STACEY WILSON also read notes of a case of gangrene of the lung, in which the first symptoms—sudden pain in the chest, especially on the left side, great dyspnœa, and faintness—came on suddenly while taking active exertion. The dyspnœa and pain lasted four days, and then both were relieved by the sudden expectoration of several pints of dark brown foul-smelling material. From the patient's description this seemed to be largely altered blood. He continued to expectorate foul-smelling material for some weeks, and then gradually recovered, and was able to get about again. In a day or two the expectoration recommenced as badly as ever. He was admitted to the hospital, bringing up daily a pint or more of extremely offensive purulent expectoration. There was no evidence of any cavity that could be drained, and the patient died. Unfortunately the diagnosis could not be cleared up, as a *post-mortem* examination was refused. The history of such an attack in a previously healthy man seemed to point strongly to hæmorrhage somewhere near the root of the lung as the cause of the primary attack. The cavity which resulted was in some way prevented from healing up, and retention of pus, with putrefaction and subsequent gangrene of the lung, resulted.

PYOSALPINX OF SEVENTEEN YEARS' STANDING.

The PRESIDENT showed a left pyosalpinx of seventeen years' duration successfully removed by abdominal section from a woman aged 43, whose life had been that of a chronic invalid since her first confinement, from which time her illness dated. The tube was universally adherent within the pelvis, measured 8 inches in length and 1 in diameter, on removal was distended with much yellow pus, and its walls were nearly a quarter of an inch in thickness. The patient suffered from severe painful attacks at frequent intervals, and had passed pus from the rectum for fifteen years. She developed an abscess in the left groin two years ago, which was opened and was followed by fæcal fistula still discharging. She had been under almost constant medical attendance, but had declined operative treatment until her condition had become extreme. She made a good recovery from the operation, and was now in better health than she had been for many years past.

GUMMA OF SCLEROTIC.

MR. J. JAMESON EVANS showed an eye removed by Mr. Lloyd Owen from a man aged 45, in January, 1897. The patient gave a history of progressive loss of sight with increasing pain in that eye of one month's duration. On admission it presented all the signs of an acute glaucoma. Tension + 2. On ophthalmoscopic examination, a sharply-defined detachment of the retina was visible over the upper and outer quadrants. The right eye showed a few spots of old choroiditis. The pain and chemosis increased after admission, and it was eventually decided to excise the eye. After its removal the orbit was found to contain a vascular mass, which was not removed. Pathological examination of the eye revealed thickened and discoloured iris, and markedly enlarged ciliary processes. The retina and choroid were detached by a brownish albuminous exudation which was most abundant just behind the ciliary processes. Here and there the retina was detached from the choroid. The choroid was thickened and infiltrated with the albuminous material. The sclerotic was implicated in a dense vascular mass, which was removed with the eye, and which extended round the posterior and inferior two-thirds of the eye, and embedded some of the tendons. At one spot in the sclerotic there was an oval homogeneous mass about one-quarter inch long. Microscopically: There was inflammation and thickening of the iris, ciliary processes were infiltrated with a loose fibrocellular deposit, replaced more posteriorly by the albuminous deposit, and a few fibrinous threads and leucocytes. The latter extended back to the equator and detached the choroid and retina. There was retinitis and most marked dilatation of vessels and round-celled infiltration of the choroid. The sclerotic was also infiltrated with round cells where it was implicated in the orbital growth, and here it had lost much of its striation. The homogeneous oval spot did not stain, but its immediate boundary stained deeply and it was surrounded by a small round-celled infiltration which was highly vascular. The subconjunctival tissue by the ciliary processes was densely infiltrated by round cells, with dilated blood vessels and some blood extravasation. The orbital growth consisted of a highly vascular round-celled infiltration which here and there showed extravasations of blood. The ciliary vessels were enlarged and their walls showed fibroid thickening which in some places almost amounted to obliteration. Three or four days after the excision of the left eye, the right eye developed glaucomatous symptoms with detachment of retina, and other symptoms exactly similar to those in the left eye. Under iodide of potassium and mercury the symptoms abated and entirely disappeared in a month. The patient was now under treatment by Mr. Jameson Evans for choroiditis, which unfortunately had affected the macular region, otherwise there was no reason to think but that he would have perfect vision. At present, Right vision = $\frac{6}{12}$ with + 6D. Field full.

CYST OF BROAD LIGAMENT.

Dr. **PURSLOW** showed a cyst of the broad ligament which he had removed by abdominal section from an unmarried woman aged 25 years. The cyst, which had been growing for three years, contained 10 pints of fluid. It was found to be possible, by removing the ovary and tube of the affected side, to make a pedicle, and this was ligatured with interlocking silk ligatures. The interest of the specimen lay in the remarkably clear way in which the anatomical relations of such cysts to the ovary, Fallopian tube, and layers of the broad ligament could be demonstrated.

EARLY LYMPHO-SARCOMA OF VERMIFORM APPENDIX.

Mr. **BARLING** showed a specimen from a man, aged 23, who was operated upon in December, 1897. For several months he had had attacks of pain in the abdomen, commencing in the umbilical region and settling in the right iliac fossa. The attacks were generally accompanied by vomiting. When admitted to hospital there was no localised tenderness in any part of the abdomen, and the vermiform appendix could not be palpated. The patient was kept under observation, as it was thought his attacks might be lead colic, as he was a painter, or that possibly the pain was caused by renal colic, but five days after he was first seen he had an attack of pain such as he had previously experienced, and he was distinctly tender over the appendix. As the patient had frequently been disabled for a few days at a time by these attacks, it was thought advisable to remove the appendix if on opening the abdomen any change could be detected in or around it. The abdomen was opened through the sheath of the rectus, and the appendix was at once found free from adhesion, but containing a well-defined lump about the size of a bean, which was thought to be firm concretion, and the part was therefore removed. On section the small mass proved to be an overgrowth of tissue, and not a concretion. It was very circumscribed, and somewhat darker in colour than the rest of the mucous membrane, and on microscopic section showed what appears to be lympho-sarcomatous structure. The patient was seen in June, 1898, and was then in good health, and had not suffered any more attacks of pain.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF OBSTETRICS.

F. W. KIDD, M.D., President, in the Chair.

Friday, February 10th, 1899.

THE ROTUNDA HOSPITAL OBSTETRICAL REPORT.

DR. MORE MADDEN, resuming the discussion on this subject, said the record was most creditable. He believed this was due to the strict asepsis practised in the hospital. Dr. Purefoy had set a good example in the use of ergot in *post-partum* hæmorrhage. Though it was an old-fashioned treatment it was most effective.

Dr. W. J. **SMYLY** thought it was a very great gain to have done away with the plug in the treatment of abortion. In the treatment of placenta prævia the same method was used at present as during his tenure of office at the Rotunda Hospital, when there was not one death as the result of hæmorrhage from placenta prævia, though two cases had ended fatally. One of these patients had been delivered by the old method of version and immediate delivery, and had died after a short time from hæmorrhage and rupture of the cervix, and the other had died on the tenth day from pulmonary embolism. Coming to accidental hæmorrhage, he considered that the best treatment was still practised—namely, that if the patient had not strong labour pains it was a mistake to rupture the membranes, and if there was external hæmorrhage the uterus should be plugged. In London students taught at the Rotunda had been rejected at examinations for not saying that they would rupture the membranes in such cases. Even the nurses who went up for the examination of the Obstetrical Society were instructed beforehand to say, if asked what they would do in a case of accidental hæmorrhage, that they would rupture the membranes, which, he thought, would be most improper. He objected to the use of the expression "the induction of artificial abortion" in the report, as the term had a considerable amount of opprobrium attached to it, and he considered that it would be better to say that they accelerated abortion.

Dr. **MACAN** concurred with Dr. Smyly in objecting to the expression "the induction of artificial abortion." He noticed a case of eclampsia which was stated to be absolutely free from albuminuria, and therefore not capable of being explained by the ordinary theories. There was a case of brow presentation above the brim where the forceps had been applied. He thought that the forceps was contraindicated in such a case.

The **PRESIDENT** referred to the fact that in about 50 per cent. of the cases of rise of temperature after delivery no explanation of the cause of this rise could be given. Surely they did not return to the old idea that it was due to milk fever, and that the poison was not of sufficient intensity to exhibit itself in the vaginal discharge.

Dr. **PUREFOY** (Master of the Rotunda) in reply said that, with regard to the use of ergot in *post-partum* hæmorrhage, it was needless to say that they only used it when the placenta was absent. They employed Squibb's preparation of ergot, and he commended its use as it had given satisfactory results. One possible explanation of the fact that the mortality was greater in the intern than in the extern department was, of course, that the bad cases in the extern maternity were admitted into the hospital. The four-hour limit was only one and the least important indication in the use of the forceps. The other indications on the part of the mother and the child were also taken into account. He agreed that it was unsatisfactory not to be able to assign a cause to the cases of rise of temperature which Dr. Kidd had referred to, but the fact remained that they were unable to give a tangible cause for the elevation, as a large number were not interfered with, even to the extent of a vaginal examination.

SECTION OF SURGERY.

R. L. SWAN, F.R.C.S.I., President, in the Chair.

Friday, March 3rd, 1899.

ARTHRECTOMY FOR TUBERCULOUS KNEE.

MR. JOHN LENTAIGNE showed a case of arthrectomy for tuberculous disease of knee-joint eight weeks after operation. In reply to Mr. **HENRY GRAY CROLY**, he said he had performed the operation for ordinary white swelling of the knee-joint. He had followed Kocher's plan of arthrectomy. The patella was first dislocated to one side, then to the other, and practically the entire synovial membrane taken out. He would perform the operation where the disease was mainly in the synovial membrane, and the bones were healthy or only slightly affected.

DISEASES OF THE FOOT.

Mr. W. I. **DE COURCY WHEELER** read a paper on some diseases of the foot. He detailed 5 cases of complete excision of the os calcis, followed by the most satisfactory results; 1 case of excision of the os calcis and astragalus, with portions of the tibia and fibula; 13 cases of medio-tarsal operation or Chopart's operation, all showing as favourable results as the patient (exhibited at the Society) on whom he performed this operation twenty years ago; also 3 cases of complete excision of the astragalus for disease, besides others for compound dislocation. There was a brief record of 39 cases after Syme's operation, also results after Tripier's operation, which Mr. Wheeler was of opinion had as many advantages over the subastragaloid operation as Chopart's had, but had not the advantages claimed over the medio-tarsal operation, except with those who believed that in Chopart's operation the astragalus was thrown forwards against the scar, which was quite preventable in a properly-executed medio-tarsal operation, and did not occur when the plantar flap was made sufficiently long. After a record of the excisions of various bones of the foot and 6 resections of the first metatarso-phalangeal articulation, the paper concluded by a description of metatarsalgia, Madura foot, and 2 cases of podal coma so graphically described by Professor Miller. One patient completely recovered, the second had a recurrence of the disease. There was no history of any constitutional or predisposing cause why the foot of the patient, a man about 32 years of age, should be attacked by this painful disease, except, in Miller's words, his "system was weak and miserable." His parents were both alive and remarkably healthy.

Mr. Croly was not in favour of excision of the os calcis. A patient with tuberculous os calcis had rarely the disease confined to that spot. If the os calcis were touched at all, he approved of its entire removal. The bone could not be entirely removed by gouging, but should be removed in such a way that the incision would not be under the heel, but rather behind it. Excision of the os calcis was a good operation in case of accident. He considered Chopart's operation very good, because if the disease was confined to all the bones in front of the medio-tarsal line, a sound astragalus and os calcis were left. Podal coma required amputation of the foot. Nélaton's perforating ulcer of the foot was a rare affection, and was connected with certain forms of neuritis, and sometimes in connection with diabetic condition of urine. Perforating ulcer might be easily overlooked, and was very unfavourable for dealing with.

The discussion was continued by Mr. T. Myles, the President, Dr. Henry Fitzgibbon, Mr. Chance, and Sir F. Cruise; and Mr. Wheeler, in reply, said that excision of the os calcis was favourable, because the synovial sac was limited, thus preventing rapid extension. The sooner the bone was removed the better, and he did not approve of the gouge in removal, because it was difficult to say whether one was in healthy or unhealthy tissue, and, still more, in strumous patients the use of the gouge might set up inflammatory action, which would produce more carious disease.

Perforating Gastric Ulcer.

Mr. T. Myles read a paper on perforating gastric ulcer, and mentioned a number of cases on which he had operated. Amongst the most interesting of these was that of a gentleman, aged 72, who after the reduction of an umbilical hernia, developed symptoms of perforation. The patient was under the care of Sir Francis Cruise and Dr. Moran. When Mr. Myles was called in the patient was sinking rapidly, with great pain and tenderness, persistent vomiting of black tarry matter, evidently blood, complete absence of liver dulness, tympany, etc. Operation seemed hopeless, but was undertaken in consequence of the dreadful agony the patient was suffering. The perforation was easily found, sutured, and the abdomen freely douched with hot saline. The patient made a complete recovery. Mr. Myles pointed out that the ease with which an anterior perforation was found and handled contrasted markedly with what happened when the perforation was behind and extravasation occurred into the tissue sac of peritoneum. A number of interesting cases was detailed, and some illustrated clearly the great difficulty of accurate diagnosis.

Sir F. Cruise had learnt from the case *Nil desperandum*. The patient was almost pulseless at the commencement of the administration of the chloroform; the pulse became much better when the chloroform was changed to ether.

Mr. Wheeler preferred swabbing out the abdomen to douching. He had seen saline solution revive a patient on whom he operated for tuberculous peritonitis. It depended on the position of the perforation of the stomach whether the operation could be rapidly done or done at all.

Mr. Chance made some remarks, and Mr. Myles replied.

PATHOLOGICAL SOCIETY OF MANCHESTER.

R. B. Wild, M.D., President, in the Chair.

Wednesday, March 8th, 1899.

Rupture of Heart.

Dr. Kelynack, on behalf of Professor Dreschfeld, showed a preparation from a case of cardiac rupture, with communication between the ventricular cavities.

Ureteral Calculi.

Mr. Stanmore Bishop showed three ureteral calculi, removed by suprapubic cystotomy. Two cases occurred in males, one in a female. The first, in a boy of 13 years, produced the usual symptoms of vesical calculus, was easily recognised by the sound, but was evidently fixed. At the time of operation, 6 years ago, an oxalate of lime calculus, the shape of a wheatsheaf, was found, the stalk being fixed in the lower end of the ureter. Perfect recovery, and report of good health last month. The second, a woman, gave a history of renal colic at intervals since the age of 13. Menstruation commenced at 15; after this pain was accentuated at the periods. Both ovaries and tubes had been removed a year previously by another surgeon, but without relief. Stone detected by recto-bimanual examination could not be felt from the vagina. Removal by suprapubic lithotomy; death by anuria. In the third case, a boy aged 7 years had complained of symptoms of vesical stone "since he was a baby," and a stone weighing 2 ounces was found and removed by suprapubic cystotomy. The patient, however, did not improve, the temperature rose, and there was still great pain. Thinking that there might be an accumulation of pus in the cavum Retzii, a rectal examination was made, and a second stone detected in the lower end of the ureter. This was removed and gave exit to pus from the kidney. Slow recovery. Mr. Stanmore Bishop discussed the symptoms produced by and the various operations proposed for ureteral stones impacted in this situation. In reply to Dr. Harris, Mr. Bishop pointed out that a satisfactory result from massage must be very exceptional; that in two of the cases under discussion it could not have been borne, and that in the third it would have been extremely risky.

Staining of Sheath on Nerve Fibres.

Dr. Orr read a preliminary note of a new method of staining the myelin sheath of the nerve's fibres in the brain and spinal cord. The method consisted in the penetration with osmic acid of formalin-hardened blocks of tissue to bring out the normal fibres, and should it be desired to stain the morbid fibres, then the nervous tissue, as in Marchi's method, had to be previously hardened in pot. bichrom. 2 per cent. or in Müller's fluid. The blocks of tissue should not exceed ⅛ inch in thickness. The osmic acid was mixed with acetic acid in the following proportion: osmic acid, 2 per cent. 4 cm.; acetic acid, 1 per cent. 1 cm. Formalin-hardened pieces of tissue ought to remain in this solution for four to six days, Müller- or bichromate-hardened nervous tissue for ten to fourteen days. Fresh tissue placed in the above solution for forty-eight hours, then immersed in 10 per cent. formalin, demonstrated especially the fine fibres of the outermost layer of the cortex. The penetration being completed the block was then embedded in paraffin and cut. After removal of the paraffin from the sections differentiation was carried out by means of $\frac{1}{12}$ per cent. pot. permang. and 1 per oxalic acid, except in bichromate-hardened tissue, the sections in this case being mounted after the paraffin had been dissolved out by xylol. Dr. Orr specially recommended the acetic-osmic acid solution on account of the certainty with which it stained the fine medullated fibres of the brain, and also on account of its superior penetrating power over Marchi's fluid in Müller-and bichromate-hardened nervous tissue.

The communication was illustrated by a series of lantern slides.

Oxford Medical Society.—At a clinical meeting on March 10th, Mr. H. P. Symonds, President, in the chair, Dr. Ritchie read notes of a case of Pontine Hæmorrhage, and showed the brain, which exhibited a small hæmorrhage on the surface of the pons; on section, a very extensive hæmorrhage was found, ploughing up the whole substance of the pons. The central arteries were markedly atheromatous. The patient, a woman aged 48, had come into hospital as an out-patient to be treated for some local elephantiasis of the skin. She suddenly became helpless, and some spasmodic twitchings of the left eyelid were observed. She rapidly became comatose, and sank four hours after admission. Before death the pupils were contracted to a pin-point and the temperature rose to 105° F There was no atheroma of the heart or large vessels corresponding to that found in the cerebral arteries, but there was some interstitial change in the kidneys, with considerable peri-arteritis. No history of syphilis was obtained.—Dr. **Turrell** read notes of a case of Placenta Succenturiata. A primipara fell out of a dogcart when six months pregnant, sustaining slight injuries to the head and ankle. She was confined at full term, the labour being natural and easy; the placenta, complete, and of normal size, was readily expressed. Twenty-four hours later, the patient being in great pain, the uterus was found to be greatly distended with blood clots. These were expressed; the hæmorrhage, however, continuing, the uterus was explored, and two pieces of placental tissue, the size and shape of bananas, were removed. The patient continued very collapsed and bloodless, with a pulse of 150, and temperature 102° F. A uterine douche was given, and this was followed by a rigor. On the following day, the discharge being slightly offensive, the uterus was explored, under ether, and a few shreds were removed from the fundal region. The uterus was again douched, but this had to be stopped, as the pulse suddenly failed, and on recovery a rigor took place. These were the only rigors that occurred during the progress of the case, in each case preceded by a douche. The temperature fluctuated above normal for a fortnight, but the patient ultimately made a good recovery. Dr. Turrell drew attention to the fall which the patient had during pregnancy, as from what was known of the etiology of placenta succenturiata, it was probable that this gave rise to hæmorrhage into the placental tissue, with ensuing destruction of some of the villi. Dr. **Brooks** suggested that the rigors were due to absorption of perchloride of mercury, but Dr. **Turrell** pointed out that on the second occasion he had used an iodine douche. He regarded it as a reflex phenomenon.—The **President** showed two cases of Appendicitis in which he had successfully operated. In one of these cases, a girl aged 22 had had several mild recurrent attacks before admission, and there was marked tenderness at McBurney's point before operation. The appendix was slightly adherent to surrounding structures, and much elongated, passing up under, and adherent to, the under surface of the liver. It was removed by circular amputation, the peritoneal surfaces being sutured with silk. Recovery was uneventful. The second case was also one of mild recurrent appendicitis in a woman aged 23. The appendix was inflamed and adherent to surrounding tissues; it was removed in a way similar to the first case.—Dr. **Duigan** showed a specimen of Vesical Calculus weighing 4 oz., which was found *post mortem* in the bladder of a young man who had refused all surgical treatment.—Dr. **Elsmore** showed a Skiagram of a Broken Needle embedded deeply in the wrist.

Midland Medical Society.—At a meeting held on Wednesday, January 18th, Dr. W. G. **Lowe**, President, in the chair, the following gentlemen were elected members of the Society: Mr. J. E. A. Chatelier, Mr. J. Morgan Evans, Mr. W. Duncan Lawrie, Mr. J. McCall, and Mr. J. Orton.—Dr. **Stacey Wilson** showed a case of Cretinism in a child, aged 3, who had improved most markedly under treatment. After taking 3 grains of thyroid extract once a day for a month the improvement in all symptoms was most marked. The child became bright and lively, and also cut two teeth in addition to the seven which he had previously had. Dr. Stacey Wilson also showed a case of Post-hemiplegic Disorder of Movement in a young woman aged 22. When 11 years of age she had an attack of right hemiplegia with aphasia. She was unconscious for five weeks, and recovery from the paralysis was very slow. At the end of twelve months there was still complete paralysis of the arm, although the other paralyses were passing off. Shortly after the return of motor power in the arm a spastic condition became superadded. For the last four or five years the hand had been firmly clenched, and the patient had been unable to open it. There had also been continuous spasmodic contractions of all the muscles of the arm with some irregular movements of extension and flexion. The muscles of the right arm were all hypertrophied. She was treated by fixation of the arm and hand on a splint. The arm was kept fixed in a manner for some weeks. As a result of this enforced quiet the morbid habit was broken, and the patient regained the use of the hand and arm. She still had irregular movements of the hand and arm when excited, but her voluntary power was rapidly increasing. The most interesting feature was the good result obtained by limiting for only a few weeks the spasmodic movements.—Mr. **Barling** showed a patient, aged 40, on whom he had performed gastro-jejunostomy for pyloric obstruction, causing dilatation. The patient had suffered from indigestion for the last thirty years, and during the latter part of the time he was told by his doctor that he suffered from ulcer of the stomach. During the last four years he had suffered severely from pain in the epigastrium, and in the left chest and back, with attacks of vomiting. Latterly these attacks had been unusually severe, but the vomiting had not been constant, but would occur every three or four days, when a very large amount would be brought up, and the patient would be able to recognise portions of the food taken two or three days before. At no time had he vomited blood, nor had he recognised anything in the stools indicating hæmorrhage. He had lost weight for many months slowly, but rapidly during the few weeks previous to his operation. Examination of the abdomen failed to show any tumour or thickening in any part of the stomach, but there was marked dilatation of the organ when it was distended with carbonic acid gas, the lower margin reaching then 3 inches below the umbilicus. In November, 1898, Mr. Barling opened the abdomen in the middle line, and a thickening was at once recognised at the end of the pylorus, but considerable doubt was felt as to whether this was an early growth or severe cicatrisation round a chronic ulcer. In the presence of the doubt it was felt wiser to do gastro-jejunostomy rather than a pylorectomy. An anterior gastro-jejunostomy was therefore performed with Murphy's button. The patient progressed most satisfactorily till the tenth day, when he complained of distension; the stomach was found dilated, the patient became extremely feeble, and his temperature dropped to 96°. By occasionally washing out of the stomach, limiting the diet very carefully, and constant stimulation, the stomach symptoms were relieved, and the patient, who was apparently moribund for a few hours, revived, and was discharged from the hospital on January 1st. His weight on December 22nd was 6 st. 9¾ lbs., and at the present time (January 18th) it is 8 st. 6½ lbs. His stomach symptoms and collapse on the tenth day might have been due to the drag of a distended colon, kinking the jejunum and so obstructing that part of the intestine beyond the point of anastomosis, an accident which not infrequently happened in the early days after this operation, or it might have been due to the button which had now separated, obstructing the calibre of the jejunum. The button had so far not been voided.—Mr. J. **Furneaux Jordan** showed a specimen of Fœtus in an amniotic sac removed from a case of tubal pregnancy. The patient was aged 34, had been married thirteen years, had two children, the younger aged 10, but no miscarriages. She menstruated regularly till August last, the last being slight in amount with occasional pain. She had not menstruated since the beginning of August, and in September had her first attack of acute pain, lasting for some hours in the left lower abdomen. She had had pain in the same region ever since, with occasional exacerbations, especially at what would have been her monthly periods. In the first few weeks of her illness she got much thinner. There was no hæmorrhage at all from the uterus. There was severe constipation, and great pain on defæcation. When first seen by Mr. Jordan at the end of November her temperature was 101.4°, and had been up in the evening for some days. Examination revealed a tense elastic swelling behind the uterus, filling up both posterior quarters of the pelvis, above the brim of which it could be felt. The uterus was pushed forward, and to the right. The swelling was acutely tender. On December 12th Mr. Jordan operated at the Women's Hospital. On the supposition that it might be a double pyosalpinx posterior colpotomy was done, but on entering Douglas's pouch the swelling appeared cystic, and it was tapped. Clear fluid came away; the abdomen was then opened, and a large left tubal pregnancy, with intraperitoneal hæmatocele was removed. A four-months fœtus in amniotic sac was in the hæmatocele, in which also the outward end of the tube was lost. The clear fluid drawn off by the vagina was amniotic fluid. The outer firm layer of the hæmatocele was universally adherent. The patient was now quite well.—Mr. **Barling** showed a specimen of *Cathéter à Boule*, removed from a very stout man, aged 56, who was the subject of six herniæ, of chronic eczema, and of a stricture of the urethra for which he had been in the habit of passing an instrument himself. He presented the symptoms of stone, and, on sounding, one was detected, and as the stricture was easily dilated to take a lithotrite crushing was resorted to in preference to suprapubic lithotomy. There was no suspicion that a portion of catheter was in the bladder, but at the time of crushing the fragments appeared extremely soft. This was explained on using the evacuator, when the fragments washed out proved to be bits of catheter coated with salts. When questioned about the matter after the operation the patient acknowledged that he had broken off in his bladder a portion of catheter about an inch long some weeks before.—Dr. SUCKLING read a paper on Epilepsy.

FORFARSHIRE MEDICAL ASSOCIATION.—At a meeting on March 1st, Dr. J. MACKIE WHYTE, Vice-President, in the chair, Dr. MOWAT showed a man, aged 38, with Molluscum Fibrosum. The tumours had existed for five years, and were distributed all over the cutaneous surface of the body, with the exception of the hairy scalp, palms of the hands, and soles of the feet. (The case was described in *Scottish Medical and Surgical Journal*, vol. iii, No. 3.)—Professor KYNOCH showed two Cysts of the Ovary, removed by Posterior Colpotomy, from a patient aged 26, who had for three years complained of pelvic pain. One was a dermoid containing hair, bone, and a tooth.—Dr. EMILY THOMSON spoke of a patient, aged 28, who had pain for two years, from whom she had removed a large dermoid.—Dr. HALLEY read a paper on The Treatment of Perforating Ulcers of the Foot by Nerve Stretching, giving the notes of and the result of this treatment in 3 cases. In all the ulcers had followed callosities, and had gone on increasing; in two they were painless. In all three there was a certain amount of anæsthesia, marked sweating of the foot, or in one case feet, affected, and a varying amonnt of thickened epidermis. In none was there any affection of the central nervous system, or of the circulatory system. In one case there was a history of peripheral neuritis due to alcoholism. The result in all three cases was distinct improvement and disappearance of the ulcer, but only for a time. The various methods of treatment were then considered, and the results following nerve stretching reported by others were given. The opinion was expressed that if nerve stretching were performed early enough, and if the patient were kept at rest a sufficiently long time the results of this treatment might be more satisfactory, and that it ought to have at least a place in the treatment of perforating ulcers of the foot where there was no affection of the central nervous system or circulatory system. Dr. BUIST and the CHAIRMAN spoke on the paper, and Dr. HALLEY briefly replied.—Mr. GREIG read the first part of a paper on Two Years' Experience in the Surgical Out-patient Room of the Dundee Royal Infirmary. He first dealt with fractures, explaining that the number treated was limited, and confined almost entirely to the upper extremity because the majority were treated in the accident room. He gave in detail the number of fractures and the treatment he always adopted. He recommended the four-tailed bandage as against Sayre's method in the treatment of fracture of the clavicle. He then gave the number of cases of carbuncle treated, their situations, and the treatment adopted; and also of whitlow, of which the majority of his cases were in females. The number of cases of syphilis and gonorrhœa and soft sore was also given, and the treatment adopted.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.—At a meeting on March 2nd, Dr. ALFRED ROBINSON, President, in the chair, Dr. KEELING showed the specimens removed, and gave details in the following cases: (1) Cystic Myoma of the Uterus successfully removed by abdominal section in an unmarried woman, the uterine wound being treated intraperitoneally; (2) Broad Ligament Cyst removed from a married woman, aged 30, sterile, married ten years; recovery excellent; (3) Dermoid Cyst and Ovary; patient single; recovery good; (4) Menstrual Fluid removed in a case of Imperforate Hymen; the patient, otherwise a healthy, well-grown girl, was 17 years of age, and had never menstruated; (5) Cancerous Uterus removed by Vaginal Hysterectomy from a married multipara, aged 42; recovery had been excellent with the serious exception that a urinary fistula had resulted, probably from the bladder having been caught by one of the forceps and in securing the broad ligament.—A discussion followed on the Operative Treatment of Fibro-myomata and Cancer of the Uterus, in which Dr. MARTIN, Mr. RICHARD FAVELL, Dr. ANDREW WALKER, Dr. SINCLAIR WHITE, Mr. PYE-SMITH, and Mr. SIDNEY BARBER took part.—Dr. CAIRNS read notes and showed the specimen of a case of Ectopic Gestation diagnosed by Dr. Andrew Walker and himself, and successfully operated on by Dr. Sinclair White.—Dr. ARTHUR HALL showed: (1) Heart with Stenosis of the Pulmonary Artery, Imperfect Ventricular Septum, and Patent Ductus Arteriosus from a boy aged 11 years who died of pneumonia; the cyanosis was not extreme except during the last few days of life; (2) Liver with Gall Stones in the Gall Bladder, an Impacted Stone in the Ductus Choledochus, several Stones in the Hepatic Bile Ducts, which were largely dilated; in the left lobe multiple abscesses secondary to well-marked Cholangitis and a large left Subphrenic Abscess apparently secondary to the suppuration in the liver; (3) Carcinoma of the Bodies of the Seventh Cervical and upper three Dorsal Vertebræ, part of a widely-distributed cancer, the primary seat of which could not be discovered; the bodies of the vertebræ had given way, and produced transverse myelitis, which was the immediate cause of death; (4) Typhoid Ulcers preserved by Kaiserling's method with Formalin and Glycerine.—Dr. GEORGE WILKINSON gave an account of a case of Subphrenic Abscess operated upon by him. The patient, a man aged 47, was admitted into the Royal Hospital very ill with a prominent, tense fluctuating swelling in the epigastric region. Hepatic abscess was diagnosed; the swelling was incised, and two pints of pus and hydatid fluid evacuated. Much pain was complained of in the left side when the patient was being lifted on to the operating table. Next day there were signs of a subphrenic collection of fluid in the left side. This was evacuated and drained after resection of a portion of the seventh rib in the anterior axillary line and sutures of the costal pleura to the diaphragm. Drainage was continued for two months, after which the cavity healed and the patient was discharged.

BRISTOL MEDICO-CHIRURGICAL SOCIETY.—At a meeting on March 8th, Dr. ROXBURGH in the chair, Dr. WALDO showed patients with: Adenoma Sebaceum; Tuberculosis of the Skin.—Dr. SHAW showed patients with: Spastic Diplegia; Anterior Poliomyelitis; two brothers with Pseudo-hypertrophic Paralysis.—Dr. MICHELL CLARKE showed patients with: Syringomyelia; Disseminated Sclerosis; Progressive Muscular Atrophy.—Dr. E. C. WILLIAMS showed a case of Hemiplegia with Choreiform Movements in a child.—Mr. MUNRO SMITH showed a patient on whom Erasion of the Knee had been performed.—Mr. C. A. MORTON showed a patient and specimen from a case of Excision of the Cæcum for Cancer.—Mr. CARWARDINE showed patients on whom Excision of the Rectum by the subperiosteal operation had been performed.—Dr. STACK showed a young child with Premature Menstruation.—Dr. F. H. EDGEWORTH read a paper on the Treatment of Simple Cases of Bronchitis.—Mr. A. W. PRICHARD read a paper on a Case of Hæmatometra.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.—At a meeting on March 10th, Dr. E. GWYNN, President, in the chair, Dr. A. ASHBY read a paper on the Duties of Medical Officers of Health in Relation to Small-pox in view of the Alterations in the Law of Vaccination. The hope expressed by those who had forced this "tremendous experiment" on the country for five years, that it would disarm opposition to vaccination had not been fulfilled, and in many places vaccination had been practically abolished. He did not deny that there were a few improvements in the law, but Clause 11, which imposed on the magistrate the invidious duty of deciding whether objections were "conscientious" was absurd; that being only an expression of sentiment and ignorant prejudice. Again, it seemed anomalous that a matter closely connected with the public health should be committed to the Poor Law, not to the sanitary authorities, though it would be inexpedient at the present time to effect a change that might lead to the election of these authorities being dependent on their opposition to vaccination. But medical officers of health should endeavour to secure isolation accommodation where such had been deficient or wholly wanting; elsewhere should small-pox break out with severity previously unknown, and the accommodation that had sufficed in the past prove inadequate the people must pay in hasty, and therefore costly, provision for their neglect of the earlier and inexpensive protection of vaccination. Adults might be left to suffer for their own folly, but the infants should not be sacrificed to that of their parents, and in the absence of compulsion, organisation should be opposed to organisation, branches of the Jenner Society be established everywhere, especially where the Antivaccination League was at work, and the public educated by lectures, the distribution of literature, etc. The co-operation of men and women of all classes should be encouraged, but the medical officer of health would do well to avoid involving himself in heated newspaper controversies. Mr. **Beale Collins** said that in his district only 12 objectors had come forward in a population of 35,000, and vaccinations had increased since the passing of the Act. Dr. **Woodforde** told how the improvised accommodation required by an outbreak of 50 cases in a rural district cost £1,500. Dr. E. **Groves** found great difficulty in getting a site for a tent, and complained that the Local Government Board would not allow the reception of even real paupers in the workhouse infirmary. Dr. F. T. **Bond** felt that little could be done save during an epidemic. At Gloucester the sanitary authority was now mostly composed of antivaccinators, who, though professing to rely on isolation, had actually reduced the accommodation from 48 to 16 beds in an iron building with no road or proper arrangements. Dr. **Seaton** found hospital provision no less unpopular than vaccination, and the Local Government Board instead of compelling the authorities to provide it, placed obstacles in the way of such as were willing. Guildford had to fight from court to court for the erection of a hospital in one of the loneliest spots in the county, the opposition coming from a single resident at a distance of two miles. Dr. **McVail** considered it impossible to define sufficient accommodation, for where all were vaccinated none was wanted, and where all were unvaccinated no amount would suffice. There should be a permanent and complete administrative block, with ample space and facilities for the erection of temporary buildings to meet the requirements of the occasion. Dr. **Sykes** felt very strongly that the whole system of certification of vaccination as well as of the causes of all deaths needed revision. The mere fact should be reported by the friends, but the certificate describing the result of a vaccination or the cause of a death should be, as in the notification of infectious diseases, forwarded by the medical attendant to the respective authorities.

Chelsea Clinical Society.—At a meeting on March 7th, Mr. J. **Foster Palmer**, the President, who was in the chair, in opening the proceedings, referred to the courtesy of the Director of the Jenner Institute (Dr. Allan Macfadyen) in not only granting the use of the theatre for the purpose, but in undertaking to give a bacteriological demonstration before the society.—Dr. **Macfadyen**, in the course of his lecture on Enteric Fever and Diphtheria, dwelt mainly with the bacteriological aspects of these diseases. The life-history of the typhoid fever bacillus was discussed in its different phases, and cultures of the organism on various soils were shown. The spleen and urine were stated to be the most convenient sources of pure cultures of the bacillus, the search for it in the dejecta being attended with considerable difficulty. The Elsner potato-gelatine soil had not proved so successful a means of isolating the bacillus from the stools as had originally been anticipated. The means adopted for differentiating between such closely allied organisms as the typhoid and colon bacillus were explained and illustrated. The sources of infection were next dealt with, and the pathological lesions found in the disease, whether due to the primary or secondary infections, were explained. It was pointed out that the bacillus had undoubtedly pyogenic properties. Some time was devoted to the discussion of Pfeiffer's phenomenon and Gruber's reaction, and the great value of Widal's test in doubtful cases of the disease was emphasised. All these reactions were stated to be of a specific character, and for the successful employment of the Widal test a good strain of the typhoid bacillus was said to be essential. The difficulty experienced in obtaining any specific toxins from cultures of the organism had up to the present prevented the preparation of an antitoxin serum of any value for treatment; on the other hand, the antityphoid vaccines prepared might be of value as preventive agents. The salient points connected with the bacteriology of diphtheria were then referred to. The antitoxin treatment was discussed and the importance of an early bacteriological diagnosis, and the immediate use of the serum treatment, were pointed out. Through improved methods of preparation the amount of serum necessary for injection had been greatly reduced, and thereby the danger of any unpleasant sequelæ reduced to a minimum. The methods of standardising the serum were explained, and it was stated that it was an erroneous impression that the antitoxic substances had any poisonous or deleterious action on the system. The lecture concluded with a lantern demonstration and an exhibition of a number of microscopical specimens in illustration of the subject matter of the paper.—Mr. **Lennox Browne** said he wished to correct the impression that he was an opponent to the antitoxin treatment of diphtheria; he had early taken up the position of a critic, but was fully satisfied with the efficiency of the serum treatment.—Drs. **Hamson, Flanagan, Marsh,** and **Vinrace** also took part in the discussion.

REVIEWS.

A Manual of the Diseases of the Nervous System. By Sir W. R. Gowers, M.D., F.R.S. Third Edition. Edited by Sir W. R. Gowers and James Taylor, M.D., etc. Vol. I, Diseases of the Nerves and Spinal Cord. London: J. and A. Churchill. 1899. (Royal 8vo, pp. 708. 15s.)

The appearance of the third edition of Gowers's *Manual* needs an emphatic if a brief welcome; the work is too well known to need any long description. In its preceding editions, indeed, it is not only well known, but recognised as a classic in its own department of knowledge. Like Dr. Bevan Lewis's great work on *Mental Diseases*, which has also just appeared in a new edition, Gowers's *Manual* stands, if not unrivalled, still preeminent. Both these works were happy in that they appeared early enough to take a lead in their subject, and yet late enough to enter into possession of modern methods of pathological and clinical research. Dr. **James Taylor**, who has long been associated with Sir W. Gowers in his work, and is himself a distinguished neurologist, is a fitting partner in the farther prosecution of these investigations and in the publication of the results.

In the present edition, as the preface states, every chapter has been subjected to careful revision, and numerous additions have been made embodying the results of personal experience and the more important facts ascertained by others. We find on perusal of this first volume that the claim is well founded. The present (the third) edition contains about 75 more pages, and 14 more illustrations.

Of the letterpress the additional matter consists, in part, of chapters wholly new, in part of additions to the old. On comparing the old chapters of the second edition with those of the third, we find that the increase is fairly distributed among them all. Scarcely any important subject has failed to secure some part in the farther space allotted to the new matter collected by the authors. Of the wholly new chapters we note an important one on The General Constitutution of the Nervous System. The partial apology with which this section is introduced is needless; usefulness comes far before logic, and, come where it may, it is infinitely useful to the student in the midst of his clinical studies to have succinctly before him a view of the new light thrown upon the constitution of the nervous system by the methods of Golgi, Cajal, Kölliker, Waldeyer, and others. The new unit conception—the neuron—is clearly described, the fibrillary constitution of the axon also, and the new aspect in which the nerve cell is now regarded; nor do the authors forget to tell us how, with the disappearance of old difficulties new difficulties arise.

Another new chapter is on General Crural Neuritis. Many practitioners, if we may speak from our own experience, have met with cases in which it was clear that sciatica, if a prominent feature, did not exist alone; and the elucidation of such complex cases will be made at once more easy and more satisfactory to the mind after reading the remarks of the authors upon them.

Other chapters are on Acute Multiple Myositis, on Herpetic Neuritis, on Sclerosis of the Cord in Certain Toxic States—as in Pernicious Anæmia—not considered in the former edition, and on a Family Form of Muscular Atrophy in Children with Spinal Cord Lesion. An Appendix on Muscle Spindles, from the competent hand of Dr. Batten, concludes the first volume. In the chapter on Herpetic Neuritis we miss any allusion to the researches of Drs. Head and James Mackenzie. The sections on Arthritic Muscular Atrophy, and on A Family Form of Muscular Atrophy, and some others, well illustrate a tendency to extreme differentiation which marks this and the preceding edition, and indeed nearly all the neurological classifications of the day. We are far from speaking of this as a fault, at any rate in the present state of our knowledge of nervous disease; no doubt before we can integrate we must analyse, and we cannot pretend that our analysis is as yet ripe for any full reconstruction. At the same time we think that we may hope that the time is approaching when more might well be done in the way of bringing kindred processes together in broader views of morbid series. Precise analysis is good for the student in leading him to attend to minute differences, and in cultivating his eye for clinical observation. On the other hand, so far has differentiation now been carried that if he is not to be disgusted by all this multiformity, we must begin to raise in his mind the hope at least of bringing many of these endless clinical varieties under larger generalisations.

It is unnecessary to dwell anew on the lucidity and concision of the style in which the book is written; these qualities in the writings of Sir W. Gowers are well known. A few small blots, however, occur here and there which, though they might pass without remark in ordinary writing, are out of place in a style generally so excellent. For instance, to speak pointedly and repeatedly of disease and of symptoms as "developments" is to set the mind of the student in the wrong direction; and, again, the astonishing word "prodromata" surprises the reader by no infrequent recurrence. But it were ungracious to dwell on such small points as these.

ROBERT BURNS AND THE MEDICAL PROFESSION. By WILLIAM FINDLAY, M.D. ("George Umber"). With 13 full-page Portraits. Pp. 160. Paisley and London: Alexander Gardner. 1898.

IN Burns's poems (except in "Death and Dr. Hornbook," a satire on a schoolmaster and grocer of Tarbolton who set up as an unqualified practitioner) there is not much allusion to medical subjects. The poet, however, had a good deal to do with members of the medical profession, among whom he had friends and patrons as well as professional advisers. In this volume Dr. WILLIAM FINDLAY has gathered a considerable mass of more or less interesting information about the doctors with whom Burns came in contact in one way or other, and also concerning those who have written about him. Among his medical intimates were Mr. John Mackenzie, of Mauchline, who introduced him to Professor Dugald Stewart. At the table of Lord Monboddo, a noted but somewhat eccentric scholar, now chiefly remembered for his theory about the human tail, Burns became acquainted with the famous Dr. James Gregory, then Professor of the Practice of Medicine at Edinburgh, and the "Great Cham" of the medical world north of the Tweed. Gregory ministered to Burns as physician, and also, it may be said, as critic. In the latter capacity he was so unsparing that the unfortunate subject of his literary vivisection wrote: "Dr. G. is a good man but he crucifies me." But Burns acknowledged that he had derived benefit from the operation, for he also wrote: "I believe in the iron justice of Dr. G., but, like the devils, I believe and tremble."

Alexander Wood ("Lang Sandy Wood"), who treated Burns in Edinburgh for a sprained knee, was a character. He had at one time a pet sheep which trotted after him through the town on his professional visits. It was Wood who recommended Burns to the Commissioners of Excise, a service for which the poet had reason to be grateful, for the supervision of exciseable liquors furnished him a more substantial livelihood than the waters of the Pierian Spring.

It is pleasant to learn that the medical profession of Scotland appreciated the national poet. Among the subscribers to the first Edinburgh edition of Burns's poems (1787) were no fewer than 55 doctors. Among these one notes with interest the names of Joseph Black, the famous chemist, Benjamin Bell, Gregory, Alexander Monro, and Dr. Moore, the author of *Zelucco*, and a considerable person in the literary world of the day, but perhaps better remembered now as the father of Sir John Moore who was killed at Corunna.

Another medical friend was Dr. Maxwell, of Dumfries, son of Maxwell of Kirkconnell, who was out in the '45, and became the historian of the rising. Maxwell, who had studied medicine in Paris during the Revolution, is said to have acted as one of the National Guard round the scaffold of Louis XVI, and to have dipped his handkerchief in the royal blood. He was near enough to hear the famous words, "*Fils de Saint Louis montez au ciel!*" addressed to the King by the Abbé Edgeworth. Burns and Maxwell were both ardent democrats, and indeed Maxwell was denounced by Burke in the House of Commons for alleged treasonable designs; but when the war broke out between Great Britain and France in 1793 they both joined a volunteer company formed in Dumfries to repel the invasion threatened by "haughty Gaul."

Considerable space is naturally devoted to Dr. James Currie, the poet's first and kindest biographer as Carlyle calls him. Currie was not only a distinguished man in his profession, a pioneer in thermometry and in the cold bath treatment of fever, but had considerable literary ability. He had a great admiration for Burns, with whom personally his acquaintance was of the slightest. The *Life* cost him an enormous amount of labour over a period of three years, but the whole of the proceeds, amounting to £1,400, were given for the benefit of the poet's family.

Dr. Findlay has collected a number of references to Burns by various medical writers, such as Moir (the "Delta" of *Blackwood*), Francis Adams, of Banchory (the translator of *Hippocrates*), Oliver Wendell Holmes, John Brown (the author of *Rab and his Friends*), and others of less note.

The book is tastefully produced, and is abundantly illustrated with portraits of all the members of the profession who have been mentioned. Dr. Findlay has taken considerable trouble in collecting his materials, but the work has evidently been a labour of love. If he has not added much to what was already known of Burns's life, or thrown any new light on the poet's character or poetry, he has produced a book full of interest to all members of the medical profession who have literary tastes.

RESEARCHES ON LEADLESS GLAZES. By WILLIAM JAMES FURNIVAL, Stone, Staffs. Published by the Author. (Demy 8vo, pp. 146. £5 5s.)

PUBLIC attention has of late been frequently directed to plumbism among potters. Anything that will tend to remove or minimise lead poisoning deserves support. Mr. FURNIVAL pleads for the replacement of the ordinary glazes at present in use, which contain lead either "raw" or "fritted," by others from which lead has been excluded. It is true that where manufacturers have carefully fritted or vitrified the lead in glazes their use has been attended by less risk to health, but their employment is not absolutely free from danger, for very often either too much lead has been used, or it is badly combined chemically, so that the glaze contains a large amount of unconverted oxide of lead, the presence of which becomes a source of danger to the dipper and his assistants. In the firing of ware the great difficulty of the potter is the occurrence of "crazing"—that is, the surface becomes uneven, cracked, etc. This happens to ware whether it has been dipped in ordinary glaze or in one from which lead has been excluded. It has yet to be shown that it occurs with greater frequency in leadless glazes. At the present time manufacturers are putting on the market white earthenware that has been dipped in leadless glaze. Cups and saucers so treated cannot be recognised by the public as different from those that have been dipped in lead glaze. Mr. Furnival is not in favour of borax as a general substitute for lead; he shows that it requires to be used in small rather than in large proportions. It makes glass, for example, too soft. For certain colours manganese and copper can take the place of lead. It has been urged against leadless glazes that they are not durable, but Muspratt states that the glazed tiles made by the Egyptians as far back as the sixth dynasty are free from lead, and that these still retain their lustre. The ware produced by the Chinese, the Greeks, and Romans still exhibits in many instances the polish conferred upon it by having been dipped in a leadless glaze centuries ago, while ware produced in our own country only a few years since, although dipped in lead glaze, is disintegrating. So far, therefore, as durability is concerned, the stigma does not attach to leadless glazes alone. Bohemian glass and Vienna porcelain are free from lead, and there are few people who are not satisfied with the hardness, the beauty, and durability of colour in these products. Mr. Furnival has put himself to considerable expense and trouble to obtain formulæ of leadless glazes, many of which he has reproduced in his book. He complains that several manufacturers of whom he had asked the composition of their leadless glazes refused to comply with his request. Such is the competitive dread of some of our manufacturers. If inquired into it would be probably found that it was the small manufacturers who were the non-compliants. Fear too often goes with ignorance. The monograph is an embodiment of good and patient work, undertaken apparently for a benevolent purpose, the object of which, however, has been defeated by the high price of the book, which has been fixed at five guineas.

NOTES ON BOOKS.

Where Two Worlds Meet (London: Skeffington and Son. 1898. Crown 8vo, pp. 77. 2s. 6d.) consists of ten chapters on problems connected with the Bible and with the spiritual life of man, which the authoress, Miss **Rosa E. Marsh**, hopes that many invalids may find useful. The reflections that make up the work are all devout, and many erudite; they are scarcely didactic, but suggestive. As the writer remarks in the chapter headed "Break up your Fallow Ground:" "The narrow limits of the sick room may be likened to a conservatory, where it is possible to develop many beautiful spiritual blossoms which perhaps would not have taken root elsewhere. For in the stir of active life the attention is often distracted from their cultivation, and so if we are unable to work any more in the world we find ourselves more particularly called to this special labour." But sick folk are of all kinds; and whilst some with minds steeped in mysticism would greatly rejoice over a book of this nature, others with intellects of robuster build would, we expect, find its perusal tedious.

The small waistcoat pocket volume called the *Golden Rules of Surgical Practice*, by E. **Hurry Fenwick**, F.R.C.S. (Bristol: John Wright; pp. 77; 1s.) is now in its fifth edition, which is an indication that the compilation has met with success. There is nothing further to remark except to suggest that Mr. Fenwick might have extended the range of his maxims, and might perhaps in future editions make some few alterations in accordance with recent views on some points of surgical treatment.

The *Golden Rules of Gynæcology*, by S. **Jervois Aarons**, M.D. (32mo; pp. 63; 1s.; same publishers) consist of a long series of statements, disconnected, contradictory, and at times even misleading, the words "remember" or "never forget" appearing in large print with exasperating reiteration at the head of each alternate sentence.

The *Golden Rules of Obstetrics*, by W. E. **Fothergill**, M.A., B.Sc., M.D. (32mo; pp. 71; 1s.; same publishers) are practical and sensible directions, which students attending their early cases would no doubt find useful. But works of the class to which these volumes belong are of doubtful utility, and there is little to be said in their favour.

The address given by Dr. James B. Russell in acknowledging the presentation made to him by the staff of the Sanitary Department and Fever Hospitals of Glasgow on the occasion of his appointment as medical member of the Loc Government Board of Scotland has been printed in a pamphle (Glasgow: R. Anderson), with a portrait of Dr. Russell fo frontispiece. The address contains many interesting reminiscences, and very generous recognition of those who had serve under the speaker in the Sanitary Department, and conclude with an eloquent warning as to the need for continual effort not only to gain new ground, but to retain that which has been already won.

The Report of the Committee on the Antitoxin of Diphtheria has been reprinted from the *Transactions* of the Clinical Society of London, and can be obtained from Longmans, Green, and Co., price 1s. net. The body of the report, as has been already stated, is concerned mainly with analysis of statistics, and contains special sections on laryngeal diphtheria, on paralysis, on symptoms attributable to the antitoxin, and on fatal cases. Among the conclusions of the Committee is the statement that the evidence tends to show, first, that the general mortality is reduced to one-third; and, secondly, that the mortality from tracheotomy falls to one-half. There are appendices containing notes of certain cases, and a reproduction of the form of inquiry issued by the Committee.

Das Ellenbogengelenk und seine Mechanik, von J. **Wilhelm Hultkrantz**, Prosektor an dem Karolinischen Institut zu Stockholm (21 figures, 4 plates, pp. 151. Jena: Gustav Fischer. 1897), is a praiseworthy example of the thorough study of a limited subject—the anatomy and mechanism of the elbow-joint. In addition to man, some three score and ten of the lower animals have been laid under contribution. The result is the most complete and exhaustive work on the elbow-joint, the anatomy of its bones and ligaments, and the mechanics of the articulation that has ever been published. The descriptions are everywhere given with minute accuracy, and the observations of earlier authors are frequently and adequately referred to. In dealing with the views of others, those for example of Fawcett, on the morphology of the oblique radio-ulnar ligament, or of Corner on the analogies of the knee-joints and elbow-joints, the author displays a fine critical faculty, and a comprehensive mastery of even the smaller details of his subject. The subanconeus muscle is very properly described as infrequent. When present its fibres are not inserted into or lost on the capsule of the joint; they may be traced in the capsule to the olecranon process.

Sir William MacCormac, Bart., K.C.V.O., has issued his *Hunterian Oration*, delivered at the Royal College of Surgeons in the presence of the Prince of Wales, on February 14th, in book form (London: Smith, Elder, and Co.). The Oration was published in the **British Medical Journal** of February 18th, and at that time we took occasion to praise it. The Oration was indeed well worthy of being preserved as a separate publication. Moreover, several sentences which were suppressed in consequence of exigencies of time, etc., at the delivery of the Oration are here restored to their proper position. The type used for the printing is clear, there is a luxurious margin, and the linen binding is in excellent taste. Altogether the volume is a pleasant souvenir of a noteworthy occasion.

THE PREVENTION OF TUBERCULOSIS.

Dundee.

Dr. Templeman, Medical Officer of Health for Dundee, has prepared a report on tuberculosis, with special reference to Dundee which has been submitted to members of the Sanitary Committee of the Town Council. During the last decade the deaths from tuberculous diseases in Dundee had been 4,707, giving an annual death-rate of 470, equivalent to fully 14 per cent. of the total deaths registered from all causes, or 1 in every 7. During the same period the deaths of children under 5 years from tuberculous diseases averaged 95, chiefly from tabes mesenterica (31) and tuberculous meningitis (39). Dr. Templeman made an inquiry into the fatal cases of phthisis which had occurred in Dundee during the last five years, or as many of them as were available, and out of a total of 1,561 cases the occupations were classed as follows:—Mill and factory operatives 561, domestic 474, labourers 79, shop assistants 54, engineers and ironworkers 46, clerks 34, joiners and cabinet makers 30, shoemakers 23, domestic servants 18, spirit merchants 18, dressmakers 16, compositors 15, carters 15, painters 14, tailors 12, seamen 12, masons 11, blacksmiths 11, bootfinishers 10, bakers 10, teachers 9, hawkers 7, hairdressers 6, hacklemakers 6, fleshers 6, cabdrivers 5, commercial travellers 5, miscellaneous 54. A large proportion of those classed as "domestic" should, he says, be placed under the category of mill and factory workers, which would increase the number of mill and factory workers dying from phthisis. With regard to the kind of houses occupied by these cases 292, or 18 per cent., were in one-roomed houses; 904, or 58 per cent., in two-roomed houses; 229, or 14 per cent., in three-roomed houses; and 136, or 9 per cent., in houses of four rooms and upwards. Dr. Templeman did not advocate the inclusion of tuberculosis in the list of notifiable diseases, and no one would dream of suggesting compulsory isolation of cases of consumption, as it could not be said that such a person was necessarily a source of public danger. It could not be too strongly emphasised that a person suffering from consumption had it in his own power to be as free from danger as any healthy member of the community. From his physical conditions the life of such a man who might be the sole support of a wife and family was beset with hardship enough, but were he constantly being hunted from pillar to post by sanitary officials, his life, hard enough at the best, would become unbearable, and his chance of obtaining or of retaining employment very remote. Dr. Templeman concluded by making the following suggestions: That an attempt be made to educate the public by the issuing of placards and the distribution of handbills, explaining as simply as possible the nature of consumption and the methods to be adopted for its prevention; that a supply of leaflets be kept at the sanitary office for those suffering from this disease, giving simple directions for the protection of themselves and of the other members of their household; that those who cannot afford to purchase disinfectants be supplied with such; that the disinfection of rooms, bedding, etc., should be undertaken when requested, not only after death has occurred, but during the course of the illness; that the disinfection of houses which had been occupied by consumptives be recommended before they are again occupied; that the practice of expectorating in public places, such as tramcars, cabs, omnibuses, etc., be prohibited unless this be done into proper receptacles which should be provided, and which should be kept scrupulously clean, and that some arrangement be made by which the sputum of suspected cases be examined bacteriologically at the expense of the local authority.

PORTSMOUTH.

Dr. A. Mearns Fraser, Medical Officer of Health, has presented a report on the prevention of tuberculosis to the Drainage and Sanitary Committee of the Portsmouth Town Council. In it he states that of the 29,332 deaths which have occurred in Portsmouth during the ten years 1889-98 no fewer than 3,668 have been caused by tuberculosis; in other words, out of every 8 people who died during that period, 1 died from tuberculosis in one or other of its forms. A fact, too, having important bearings in relation to tuberculosis is that out of these 3,668 deaths, no fewer than 1,669 occurred among adults in the prime of life, between the ages of 25 to 55, that is, among the valuable and useful members of the community. In regard to the prevention of tuberculosis, the measures that may be taken for the prevention of tuberculosis by the sanitary authority are threefold: First, the securing of the co-operation of the public; secondly, the enforcement of those powers of which the sanitary authority is already possessed; thirdly, the taking of measures to obtain still further powers from Parliament to the same end. Dr. Mearns Fraser discussed each of these measures in detail. With regard to the question of notification of tuberculosis, he said he did not think that the benefits to be derived from such a measure would be in any way commensurate with the very heavy expense it would entail. He believed that nearly all the benefits of compulsory notification could be obtained by the voluntary assistance of the public and the medical profession.

SOUTH SHIELDS.

A meeting was held at South Shields on March 13th, the Mayor (Alderman Marshall) in the chair, to consider the question of the prevention of tuberculosis. Among those present were Dr. Caverhill, Drs. Robinson and Scurfield (of Sunderland), Dr. Turnbull (Medical Officer of Health, South Shields), and Drs. Legat, Gowans, Crease, Drummond, Crisp, and Macdonald.

The Mayor stated that in the county of Durham, with a population of 1,128,000, they had in the year 1897 no fewer than 19,464 deaths, and of these 2,204 were from tuberculous disease, whereas from all infectious fevers there were only 10,278 deaths. There were probably 6,000 consumptives in the county of Durham at the present time, and that fact alone should be quite sufficient to appeal to their sympathies and support. Dr. Robinson, the founder of the Society for the Prevention and Cure of Consumption in the County of Durham, said that as the result of experiment and research they found that the best plan was to have sanatoria in the country where the patient could breathe fresh pure air free from smoke and dust, and be under the supervision of a specially skilled and trained medical man. One medical man could only supervise forty patients in the way that they thought he should supervise them, so that they should, in the first place, like to start a sanatorium containing 40 beds. This would cost £8,000. Up to the present in Sunderland they had got between £1,600 and £1,700 raised.

Dr. Scurfield (Sunderland) said that about one cow out of every hundred gave milk which contained tubercle bacilli, but the danger could be eradicated by taking the precaution of boiling the milk.

Dr. Caverhill delivered a lecture on the Crusade against Consumption, which was illustrated by lantern slides of the principal sanatoria for phthisical patients in Europe.

Rev. J. T. Brown moved:

> That this meeting of the inhabitants of South Shields and neighbourhood expresses its approval of the object of this Society for the Prevention and Cure of Consumption in the county of Durham, and hereby decide to form a branch of the South Shields district.

The resolution was carried unanimously.

Dr. Grant moved:

> That the Mayor be President of the local branch; Messrs. W. S. Robson, M.P., and J. C. Stevenson, Vice-Presidents, and that the General Committee be formed of the members of the sanitary authority, which is the town council, members of the medical profession, clergy, and ministers.

This was agreed to.

GATESHEAD.

At the invitation of the Mayor of Gateshead, a meeting was held on March 14th for the purpose of inaugurating a local branch of the Society for the Prevention and Cure of Consumption in the County of Durham. In opening the meeting, the Mayor said from 1894 to 1898 there were 894 deaths from consumption in the borough, and urged that anything that could be done to prevent the ravages of the disease ought to be done. Dr. Robinson (Sunderland) explained the objects of the Society. Dr. Scurfield (Sunderland) also spoke on the objects of the Society. Dr. Caverhill gave an address, and it was decided to form a branch of the Society, and a committee and others were appointed.

PORTUGAL.

Dr. Manoel Antonio Moreira, jun., a member of the Portuguese Chamber of Deputies, has presented a preliminary report to the Government calling attention to the increasing prevalence of tuberculosis in Portugal. An association of ladies has been formed with the object of collecting funds for the succour of indigent sufferers from tuberculosis.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary Council was held on March 16th, Sir WILLIAM MAC CORMAC, Bart., K.C.V.O., President, in the chair.

REPORT OF THE LABORATORIES COMMITTEE.

This report, which was adopted by the Council, dealt chiefly with the subject of diphtheria antitoxin.

The Work on Diphtheria for the Metropolitan Asylums Board.—Since December 9th, 1898, 2,061 doses of antitoxin, each containing 2,000 units, and 5,314 doses, each containing 4,000 units for the treatment of diphtheria in the hospitals of the Metropolitan Asylums Board, have been supplied and all the demands fully met. During this period 25,378,000 units, or 278,329 units per diem, have been supplied. During the same period 26 doses of 4,000 units each have been supplied to medical officers of health according to instructions received from the Metropolitan Asylums Board.

The Grant from the Goldsmiths Company.—Under this grant 618 doses of antitoxin, containing 1,536,000 units, have been supplied to the general and children's hospitals in London. The Committee have the pleasure to report that the Worshipful Company of Goldsmiths have made a further munificent grant of £500 for the prosecution of researches and for the continued treatment of severe cases of infective disease amongst the poor classes.

Resignation of Dr. Woodhead.—The Committee report with regret that Dr. G. Sims Woodhead, who has been director of the laboratories since their erection, has sent in his resignation on appointment to the chair of Pathology at Cambridge. The vacancy has been advertised, and the Committeee will shortly proceed to consider the applications with a view to recommending to the Royal Colleges a suitable candidate for the appointment.

Testing of Antitoxin.—The following regulations for testing antitoxic serum have been approved by the Committee—namely: (1) The serum is examined (*a*) for potency—for instance, for number of antitoxin units per c.c.; (*b*) for any excess of antiseptic; (*c*) for the presence of micro-organisms. (2) The serum may be sent to the laboratories in bulk, and may there—after being tested and bottled—be labelled with the laboratories' certifying labels. (3) When a batch has been bottled away from the laboratories the bottles shall be counted and samples selected by the laboratories' assistant who, after the serum is tested, shall provide labels to be affixed to the bottles and to the cases in which they are contained; these shall be affixed in his presence. A scale of charges has been fixed for the above work.

Midwives Bill.

A report upon the Midwives Bill, recommending certain alterations, was discussed and adopted; and it was determined to forward this to the Special Committee of the General Medical Council.

John Tomes Prize.

The Committee of the John Tomes Dental Prize was appointed by the Council. The prize (which is triennial) will be awarded at the end of the present year.

Prevention of Venereal Disease.

A letter was read from Mr. A. W. FitzRoy, forwarding, by direction of the Lord President of the Privy Council, a circular relating to an International Conference respecting the adoption of precautionary measures against syphilis and venereal diseases to be held at Brussels from September 4th to 8th, 1899, and stating that Her Majesty's Government, while not proposing to be directly represented at this Conference, are of opinion that it might be desirable that the various medical corporations of the United Kingdom should, if they think proper, take steps with a view to representation thereat. Mr. Alfred Cooper was appointed to represent the College; and it was agreed to ask Mr. Jonathan Hutchinson, sen., to be a second representative.

Congress of the Sanitary Institute.

A letter was read from Mr. E. White Wallis, Secretary of the Sanitary Institute, stating that the autumn Congress and Exhibition of the Institute would be held at Southampton on August 29th and following days, and inviting the College to appoint two delegates to attend the Congress. The Council appointed Mr. Howard Marsh and Mr. Ward Cousins as delegates.

College Centenary.

Mr. **Bryant**, in pursuance of his notice on February 9th, moved:

> That, in view of the Centenary in 1900 of the foundation of the College by Royal Charter, a Committee be appointed to consider and report to the Council whether any, and, if so what, steps should be taken to celebrate the event.

The Committee was appointed.

The Duke of Cambridge, K.G., will preside at the annual dinner of the Sanitary Institute to be held at the Whitehall Rooms on May 2nd.

IRISH MEDICAL SCHOOLS' AND GRADUATES' ASSOCIATION.

Annual Meeting.

The annual general meeting of the above Association was held on March 18th at the Café Monico, Piccadilly Circus, London. There was a large attendance of members, including Dr. Mapother, who resigned the President's chair to Sir W. Thomson, F.R.C.S.I. (Dublin); Dr. Gilbert Smith (Chairman of Council), Dr. Phillips-Conn, Reading, and Professor Alex. Macalister, F.R.S. (Vice-Presidents); Sir William Mac Cormac, Bart. K.C.V.O., Dr. Macnaughton Jones, and Dr. Richard Fegan (Past Presidents); Dr. Jocelyn Swan (Honorary Treasurer); and the two Honorary Secretaries, Dr. J. Stewart (Clifton), and Mr. P. J. Freyer.

In the report for the year 1898-99 the Council congratulated the members on the remarkably successful twelvemonth just ended. During that period good work had been done by the Council on behalf of their brethren in Ireland holding Poor-law appointments. Owing to the strong support given by them to the Irish medical bodies in their representations at headquarters, the Local Government Board had recently promulgated new rules by which the dispensary doctors had gained: (1) Privileges as regards recovery of fees from those having no claim to free attendance; (2) the right to a month's vacation annually; and (3) the provision of a *locum tenens* in the case of illness. The Council appended to their report a table showing that in London there were at present 509 practitioners eligible for membership not yet enrolled, 1,716 in the provinces, 136 in Wales and Monmouthshire, and 811 on the active and retired lists of the navy and army. A large proportion of these, it was hoped, would be induced to join their ranks when they had brought to their notice the good work the Association had always done in educating the public—especially the governors of the large hospitals—in reference to the injustice to those practising in England with Irish diplomas, caused by the rule which prevents any but the diplomates of two favoured Colleges in London from even becoming candidates for honorary appointments in the staff.

The Council reported that notwithstanding the deaths during the past year (which included Drs. Samuel Gordon and W. A. Boyd of Dublin) and the resignations, the numbers on the roll of membership had reached a total of 758. The dinners during the year had established a record as regards the numbers present. The finances were in a prosperous condition, the balance to credit being £96 1s. 5d.

A ballot having been taken, the following officers and other members of Council for the ensuing year were declared elected, namely:

President-Elect: Inspector-General W. H. White, M.D., R.N., Honorary Surgeon to the Queen. Vice-Presidents: Dr. Richard Heath (St. Leonards, Dr. Phillips-Conn (Reading), Professor Alexander Macalister, F.R.S. (Cambridge), and Dr. E. D. Mapother. Hon. Treasurer: Dr. R. Jocelyn Swan. Hon. Auditors: Dr. Finny (Kingston), and Major Tuohy, I.M.S. Members of Council: Colonel Boileau, R.A.M.C.; Drs. W. H. Bourke, Campbell Boyd, J. Arthur Browne, M. J. Bulger, G. Roe Carter, T. Hobbs Crampton, James Donelan, T. More Madden, Mouillot (Harrogate), Mr. Robert O'Callaghan, Surgeon-General Rice, M.D., C.S.I., Drs. Russell Ryan, E. Irwin Scott (Brighton), J. H. Swanton, M. H. Taylor, J.P., Henry G. Thompson (Croydon), and W. H. White.

The question as to where the "coming-of-age" celebration should take place was referred to the Council.

A vote of thanks to the retiring officers concluded to proceedings.

The Annual Dinner.

The annual St. Patrick's Festival Dinner of the Association took place at the Café Monico, Piccadilly Circus, on March 18th, and was attended by a large company. Sir **William Thomson**, F.R.C.S.I., President, occupied the chair, General Sir George White, V.C., was the principal guest; and amongst others present were Sir W. Gowers, F.R.S., Sir W. MacCormac, K.C.V.O., Surgeon-General W. R. Rice, C.S.I., Sir Dennis Fitzpatrick, K.C.S.I., Inspector-General W. H. Lloyd, R.N., General Sir T. Gordon, K.C.I.E., C.B., Dr. Gilbert Smith, Chairman of the Council, and Mr. P. J. Freyer, Hon. Sec., upon whom the organisation of the banquet chiefly devolved.

The toast of "The Queen and the Royal Family" was given from the chair, and warmly received, after which "God Save the Queen," was sung, the solo being rendered by Mr. Douglas Powell.

Professor **ALEXANDER MACALISTER**, F.R.S., proposed the toast of "Our Defenders," to which Inspector-General W. **LLOYD**, R.N., President-elect of the Association, and General Sir T. **GORDON** replied. The latter, speaking of the good effects of British rule on Eastern populations, said that those same fellaheen who, under British officers had lately conquered at Omdurman, were less than twenty years ago such poor material that a Turk with a stick could cow a large number of them. The same thing had occurred in India, China, the Straits Settlements, and Africa. The natives, under British guidance, laid aside their race hatred and religious animosities and rendered important services to the State. In effecting this change the combatant officers of the Army had been well seconded by the officers of the medical departments.

Sir **WILLIAM MAC CORMAC**, in proposing the toast of "Our Guests," said that Sir W. Gowers had done excellent work in one of the most difficult paths of medical science. Sir G. White, now Quartermaster-General of the army at home, had done exceptional service as Commander-in-Chief in India. The Indian army was constantly doing the work of an army, and its present state of efficiency was due to the infinite capacity shown by those in whose hands had been placed the supreme command. No greater acts of gallantry and of devotion to the Empire had ever been performed than those which were constantly being performed in outlying portions of the Indian Empire.

Sir **GEORGE WHITE**, in responding, said that an Irishman would play double dummy with his own shadow rather than let such a festive occasion as St. Patrick's Day pass in the dull monotony of perfect peace, so plentiful were the fighting qualities of his race. The campaigns on the frontiers of India were fought more or less in obscurity, there being usually no correspondents present to blazon them forth to the world, and the stories of their many deeds of heroism only came back to this country like muffled drums. Soldiers felt a deep debt of gratitude for the progress made in surgical and medical science; and no branch of military organisation had made such progress as, or been more beneficial to the soldier than, that which dealt with the sick and wounded in war. Sir William Lockhart, in the Afridi hills, had to convey his sick and wounded a hundred miles before he could entrain them, and yet in consequence of careful attention to the principles of antiseptic surgery the number of cases that recovered was phenomenal.

The speech was received with cheers.

Sir **DENNIS FITZPATRICK** also responded, and stated that he had had a medical training. He did not believe that on the face of the earth there existed a body of men more devoted to their duties than the officers of the medical service in India.

Mr. **BRAM STOKER** proposed the toast of "Ourselves," and said that the members of the Association had three bonds of union. They were all professional men; they were united by memories of their young days when strife was strenuous and friendships dear; and they loved that little emerald isle to which all their memories went back wherever they might be.

The **PRESIDENT**, replying, said that they were antagonistic to that unfair law under which Irish and Scotch qualifications precluded their possessors from holding public appointments in England, and which was possibly more common in the country districts than in London. Macalister, called to Cambridge, Gerald Yeo to King's College, and others to other responsible posts, had all fully justified their selection. It was a grievance that in provincial England graduates and diplomates of Irish schools were not treated on equal terms with English graduates and diplomates; whereas English graduates had full entrance to Irish medical posts. It was a pleasure to the members of the Association to know that of twenty-four places lately filled in the Royal Army Medical Corps, 50 per cent. were obtained by men from Irish schools, who also took the first and second places on the list. Lord Iveagh had given a quarter of a million sterling to improve workmen's dwellings, and another equal sum to the Jenner Institute, which would benefit the whole human race. He certainly had not restricted his largesses to Irishmen. They wanted simple equality, and appealed to the feeling of fair play and to the consistency of Englishmen. Let them have the "open door" in England. They were just entering on the majority year of their Association, and had 760 members on the roll.

Miss Lilian Moreton, Mr. Douglas Powell, and Mr. Hulbert J. Fulkerson gave in the course of the evening some excellent Irish songs, Miss Maude Jaques played a violin solo, and Miss Mary Stewart presided at the piano.

LITERARY NOTES.

MR. Fisher Unwin has in the press a new volume of the *Masters of Medicine* series. This is *Claude Bernard*, by Professor Michael Foster, F.R.S. Unexpected delays have arisen in regard to the other volumes, but we understand that they are all, like John Gilpin's wig, "upon the way."

Dr. Charles Neufeld, who was held in bondage by the Khalifa for more than twelve years, has written an account of his experiences. The book will be published by Messrs. Chapman and Hall.

One of the most interesting of our exchanges is the *Sei-I-Kwai Medical Journal*, which, as is stated on its title page, is "edited and published by the Sei-I-Kwai or Society for the Advancement of Medical Science in Japan." We regret, indeed, that owing to the unfortunate linguistic complications which originated at the building of the Tower of Babel, we feel in regard to the greater portion of the contents of our Tokyo contemporary like the Peri who gazed disconsolate through the gate of the paradise which she might not enter. But there are always some pages writ in a language which is in a manner English, though mostly of the American dialect; and in these there is generally something of interest to be found. With the New Year our contemporary changed the fashion of its garments, considerably to the improvement of its appearance. It also changed its editor, and it is further intimated that "the form of the English part was somewhat reformed." The following passage in the prospectus is particularly interesting:

> The editor and contributors are purely the Japanese, so we must apologise in advance that there may be some shortness in English, but our intention is to supply the real state of the medical science and medical events in Japan to the foreign professional brethren.

As regards "shortness in English," that we venture to say, is a quality so rare in a contributor as to call for something altogether different from an apology. The intention expressed by our contemporary is well fulfilled in the number (January 31st) before us. There is a very interesting article on "The Vaccination and the Calf Vaccine in Japan" by Dr. Tadahiro Noda, Superintendent of the Tokyo Vaccine Institute and a Sanitary Inspector of the Japanese Home Department. Fleet-Surgeon B. Tomatsuri contributes his personal observations on the "Americo-Espanean War," in which, by the way, he rendered services to the sick and wounded of the United States Army, for which he was thanked by the Commander-in-Chief. Among the medical events recorded is the formation of a "Society of the Diseases of the Gastro-Intestines," of which, it is stated, "some learned and popural persons who are considered to be benefit to the purposes of the society are selected to the honourable members." In spite, however, of a few eccentricities of grammar and spelling, hardly to be avoided in the circumstances of its production, the English part of the *Sei-I-Kwai Medical Journal* is a striking proof of the adaptability of the "Frenchmen of the East," who in linguistic aptitude at least are far ahead of those of the West.

Professor H. W. Middendorp of Groningen does not believe in Koch, and has written a book to let the world know the fact. From certain documents with which we have recently been favoured we learn that the title of the learned Dutchman's work is, *The Cause of Tuberculosis according to Robert Koch and his Curative Method*, and that it was published at Groningen in 1897, though the glad tidings of its appearance have only now reached us. Dr. Middendorp denies in general that tuberculosis is a parasitic disease, and in particular that the so-called Koch's bacillus is present in tubercles in any organ whatever. He holds that those microbes are found only in pulmonary cavities which communicate directly with the bronchi. He also denies that pure cultures can set up the disease; according to him, what does this is "the necrosing specifically infective substance adhering to those cultures." Finally he condemns tuberculin as a therapeutic agent. Here the professor ceases to be particularly interesting, for he shouts with the crowd.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1899.

Subscriptions to the Association for 1899 became due on January 1st, 1899. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the General Post Office, London.

British Medical Journal.

SATURDAY, MARCH 25th, 1899.

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THE SURGICAL COMPLICATIONS OF TYPHOID FEVER.

Not a few of the continued fevers are attended by more or less serious incidents of a surgical character. The otorrhœa of scarlet fever and measles, and the remote cerebral complications thereon dependent, the occasional laryngeal stenosis, and the frequent parotitis of typhus, have been mentioned by many generations of medical writers. But of all the fevers, typhoid is the most prolific in catastrophes of surgical origin, especially when it is remembered that under the heading of "typhoid" a certain, probably not insignificant, number of cases of typhus has been included. Keen,[1] in a recent and valuable work, points out that in 1,699 cases of fever attended by surgical complications, 1,139 case were certainly typhoid. Of 494 classed as typhus, some not rightly so, the great majority (352) were cases of parotitis; the remainder were almost entirely made up of cases of laryngeal stenosis and gangrene.

The surgical sequelæ of typhoid are almost constantly pyogenic, and assume the most diverse and often obscure forms. Since the discovery of the typhoid bacillus by Eberth in 1880, it has been shown by many observers that a certain proportion of surgical conditions arising months, or even years, after the fever may be due to this organism, which meanwhile has been lying in the body latent and quiescent. The most striking example of this kind is recorded by von Dungern. A woman, aged 46, in November, 1882, was ill with typhoid for four weeks. Several minor illnesses occurred between this date and February, 1897. In that month Kraske incised a tumour of the size of a child's head in the region of the gall bladder, and evacuated 150 c.cm. of a brownish-yellow pus, not coloured with bile. A careful examination of the pus revealed the typhoid bacillus in pure culture. Buschke has related a case in which the bacillus retained its virulence through a dormant period of eight years, and similar instances are mentioned by Bruni, Sultan, Chantemesse, and others.

The attributes of the bacillus of Eberth have been the subject of almost endless debate. There seems now to be no reason to doubt that the organism does possess pyogenic properties, for researches upon animals have shown that the injection of a pure culture of the organism obtained from a case of typhoid in man gives rise to suppuration. In man the typhoid bacillus has frequently been found in pure culture in suppurative lesions. As Keen says, "not only the number of these cases, but their wide distribution is worthy of note." The typhoid bacilli have been found in pure culture in suppurative lesions in the ribs, clavicle, radius, ulna, femur, tibia, and the bones of the fingers and toes; in the blood, heart muscle, the endocardium, and the arteries and veins of the legs; in the muscles of the neck, shoulder, abdominal wall, and legs; in the peritoneal cavity, the spleen, the liver, the bile, the kidney, the urine, and the mesenteric glands; in the brain, in the parotid gland, in the thyroid gland; in the lungs and the pleura; in the ovary; in the testicle.

The cases of mixed infection are equally numerous and widespread. The virulence of a mixed infection varies, however, within wide limits. Vincent, in mixed cultures of the bacillus of Eberth and the staphylococcus, found that the latter is remarkably inimical to the former; so much so that Eberth's bacillus rapidly disappears from a mixed culture. On the other hand, when the typhoid bacillus is cultivated with the streptococcus its virulence is intensified. An injection containing quantities of both the bacillus of typhoid and the streptococcus, which when alone were harmless, produced together the most rapid and intense reaction and death. Valliard has said that "if two animals were infected, the first with a feeble dose of the streptococcus and the second with a similar dose of the typhoid bacilli, both will be ill for a few days and then recover; but that if a third animal is infected with the same doses of the two bacilli together, death follows, with stupor, diarrhœa, and fever." The clinical features of the two infections in man are graphically described by Keen, who says: "When the infection is a mixed infection of the typhoid bacillus and other bacteria the result is a complication rather than a sequel, and the course of the disease is apt to be early in its onset, acute, and of a febrile character. When the infection is by the typhoid bacillus alone the result is a sequel rather than a complication, and the course of the disease is apt to be late in its onset, chronic, and afebrile."

The question of the identity or non-identity of Eberth's bacillus and the bacillus coli communis has now also received a final solution. Flexner remarks that "the weight of opinion among bacteriologists at this time is that the colon group of organisms can be sharply differentiated from the typhoid bacilli."

The surgical complications of typhoid fever are now known to be both frequent and dangerous. Hölscher, who wrote in 1891, analysed 2,000 fatal cases. The deaths from typhoid *per se* were 24 per cent.; 76 per cent. were due to the medical or surgical complications and sequels. The most commonly recognised of the surgical sequelæ are affections of the bones. In frequency they are second only to the laryngeal affections. The bones offer "a peculiarly inviting field" for the ravages of the typhoid bacillus. A large number of isolated cases occurring during recent years has proved that the bacillus remains latent in the bones for considerable periods, to be roused into activity by any slight traumatism, in itself trivial and unimportant. Among the rarer and only recently investigated complications may be mentioned the infection of the liver and gall bladder and bile ducts. Of 74 cases of typhoid infection of the gall bladder collected by Westcott, 30 resulted in perforation. Of these 30, 4 have been operated upon, and 3 recovered. The symptoms, generally speaking, are those of perforative peritonitis, with intense pain in the gall-bladder region.

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[1] *The Surgical Complications and Sequels of Typhoid Fever.* By W. W. Keen. London: The Rebman Publishing Co. 1898.

Of intestinal perforation there is little that is new to be said. It is Keen's opinion—an opinion which will no doubt be shared by all surgeons—that with early diagnosis and prompt treatment one-third of these cases should recover.

Among other affections may be mentioned parotitis, laryngitis, the formation of abscesses, joint inflammations, inflammations of the œsophagus, stomach, sexual organs, and gangrene, but there are many others. Keen, who directed attention to this subject first in 1876, has in his monograph brought our knowledge up to date. His work deserves the attentive perusal of all practitioners. It is, perhaps, the most important contribution to the literature of the "borderland" between medicine and surgery that has yet appeared from any American author.

THE MEDICAL SERVICE OF CROWN COLONIES.

THE letter which we published on March 11th, p. 632, from Dr. F. H. Edmonds, President of the British Guiana Branch of the British Medical Association, sets forth a grievance which is ever recurring in the Crown Colonies. It is the question of leave, more especially long leave. Medical officers are engaged according to the absolute requirements of the communities to be dealt with, and the question of leave is not sufficiently taken into consideration. But the time comes when, either from ill-health or the necessity for a holiday, leave must be granted, and the work of the absent man falls upon one or two of his colleagues. It must then happen that if only a sufficient number of medical men are engaged to carry on the urgent work of the colony, a severe strain is thrown upon men already in full work. The extra work in a climate such as British Guiana is a serious matter, and it ends either in the officer so situated failing to do the work or succumbing to the deleterious influences of the climate.

The Surgeon-General in charge, with the Government calling for a reduction in expenditure on the one hand, and the number of patients increasing on the other, has a difficult part to play. Increased work means more sickness amongst the medical officers under his control, and thereby more and more calls upon those who continue at duty. The annual report shows that "two Government officers were on leave from last year returned to duty during this year (1898). Fourteen went on leave during the year, while 11 returned during the year, and 3 were still absent at the end of the year." The entire medical staff numbers 42, and if out of the number 14 are on leave at a time, that is one-third of the whole, it would seem that each officer would, at that rate, be allowed a holiday about once in three years. Provided the staff on duty is maintained, so that no *heavy* extra work is entailed, it would appear that this allowance is liberal. Dr. Edmonds complains that the medical department is not treated as regards holidays in the same way as other Government departments. In this there is at all times considerable difficulty. In many Crown Colonies we are accustomed to find two departments pass, for a time, under one head, and the officers of the gaol, post-office, public works, or registrar's departments taking over each other's duties; but in the medical department no such "general post" is possible. Even urgent public works can be deferred; reforms in gaols, post-offices, etc., admit of delays, but not so illness; at all times its calls are urgent, and it is impossible to provide for medical leave on a level with other departments. The more urgent, therefore, is the duty of the Government of every Crown Colony to take the question of medical leave seriously into account, and to maintain the staff in such numbers that at least a quarter of the number can be ensured leave at a time, without laying too heavy an extra burden upon the men who are on duty.

THE SIGNIFICANCE OF HÆMORRHAGE FROM THE FALLOPIAN TUBE.

THE presence of blood free in the peritoneum and clearly traceable to the Fallopian tube is a matter of serious significance. Does it always signify interrupted tubal gestation? If so, important as the fact will be when a hæmorrhage from the tube is discovered at an operation, it must be far graver when detected *post mortem*. For medico-legal reasons it is very important that the question should be settled.

At present it is far from settled. Mr. Lawson Tait showed over ten years ago that tubal pregnancy was much more frequent than had been previously supposed. He thus supported Gallard's theory that pelvic hæmatocele was due to ectopic gestation; and Veit, following Tait, insisted that this form of hæmatocele almost necessarily implied ectopic gestation as its cause. This view is widely held, and seemed universally accepted not so very long ago. But Ruge, in reply to Veit, held that though the theory was substantially correct, nevertheless hæmatosalpinx was not always or even nearly always, the equivalent of tubal pregnancy. At the end of last year this disputed subject was very warmly discussed both in the London and the Paris Obstetrical Societies. The debate at the London Society turned on a specimen, in which a large clot depended from a Fallopian tube. No chorionic villi could be found, though both the original exhibitor of the specimen (who believed that the hæmorrhage might not have been due to tubal gestation) and the critic (who stated that it was idle to deny that the clot in question was the product of tubal pregnancy) alike examined sections of the different portions of the clot with care. All these same sections were impartially scrutinised by Mr. Shattock at the College of Surgeons, with a like negative result.

At the French Society, M. Doléris read an important paper on tubo-ovarian hæmorrhage. His views on the debated point are not negative, but positively against the current theory that tubal hæmorrhages are always due to ectopic pregnancy. He said that he knew of authentic examples of hæmatosalpinx quite independent of abnormal gestation. Clinical and operative evidence had convinced him that many cases of diseases of the appendages believed to be inflammatory and bacterial are not even inflammatory. They signify hæmorrhages of various intensity in suddenness and extent, originating not only in the tube, but also in the ovary. He stated that the clinical history shows that they appear independently of impregnation, puerperal or venereal infection, or any other cause of inflammation. At operation little or no trace of inflammation could be detected.

Doléris declared that he had frequently observed simultaneous ovarian and tubal hæmorrhage, and had recently operated upon an extreme example of this condition There was a big hæmatoma of one ovary, consisting of a collection of serum in which floated an old clot, and there were also hæmorrhages into the follicles of both ovaries. Each tube, closed and dilated, was the seat of a similar collection of blood, and the peritoneal cavity also contained serum and clot. There was no evidence of any kind that tubal pregnancy had ever existed. The lesions were very old, and subject to diminution and exacerbation, closely watched by Doléris. He further described a case in which many would have ascribed the clinical symptoms to tubal gestation, but he considered it to be certain that they were due to an apoplectic ovary, enlarged by extravasation of blood to the size of a hen's egg. The case strongly resembles another example of apoplexy of the ovary brought forward in 1890 at the Obstetrical Society of London by the same observer, who exhibited recently the doubtful case of hæmorrhage from the tube on which there was so much discussion.

Especially important is M. Doléris's observation that these tubo-ovarian hæmorrhages independent of gestation are often associated with irregularity of menstruation. It is significant that in the disputed case exhibited at the London Society menstruation had never been regular and that the ovary corresponding to the tube whence hung a large clot was much enlarged and contained several follicles full of half-decolorised clot. It seems not unreasonable to believe that a primary tubo-ovarian hæmorrhage may occur independently of impregnation, yet usually associated with disturbance of the catamenia, and that sometimes there is no appreciable hæmorrhage into the tube, so that nothing but an apoplexy of the ovary is to be seen, whilst sometimes the ovary escapes but the tube bleeds freely. This latter condition is very likely to be taken for tubal abortion. In a case of death where intraperitoneal hæmorrhage from the tube is detected, the chances that the bleeding is due to tubal pregnancy are very strong; but medico-legal authorities must not forget Doléris's researches, which prove that it may arise from other causes.

COLLIERY PRACTICE.

It will be remembered that some time ago the general medical practitioners resident in the county of Durham formed an organisation called the County of Durham Medical Union for the purpose of considering medico-ethical questions affecting the profession in the county, and of obtaining a better rate of payment under the contracts which so generally exist between workmen and medical men in the county. The Union put forward a demand that the rate of payment, which had been 6d. a fortnight, should be raised to 9d., certainly not an unreasonable demand in view of the altered conditions of the workmen which have been brought about since the original rate was fixed. In some cases we are glad to state that the reasonableness of this request was recognised, but in others it was repudiated with every appearance of indignation, and a conflict has ensued which we are told tends to become keener every day. The workmen in many collieries are offering a determined resistance, and in some instances are advertising for a doctor fully qualified to take charge of a "medical association" or "medical institution" to be established by the workmen at the several collieries. Applicants are, in the terms of the advertisements, requested to "state wages, etc." We understand that so far no medical practitioner has been found to accept the conditions proposed, although in one locality several medical practitioners did appear in response to the advertisement, but retired so soon as they fully understood the position of affairs. In a large proportion of the resisting collieries a delegate, generally a somewhat hot-headed agitator, has been appointed to meet the doctors, but discussion under such conditions has been found futile. We would impress upon any medical men who might be attracted by advertisements for any post as a colliery surgeon in the county of Durham to make inquiries, and in the first place to read the letter from Dr. Edward Jepson, which was published in the British Medical Journal of March 4th, 1899, p. 559. We are informed that unfortunately there is a want of practical unanimity amongst the medical practitioners in the county, but it is hoped that this may be overcome by a systematic organisation of local committees in the different districts. An indemnity fund has been formed, and has been well supported by the medical profession, but has, happily, not yet been called upon. The members of the profession who have taken part in this movement in the county of Durham are in hopes that other counties will co-operate with them. This would have the effect of making their task lighter, and of diminishing the difficulties which they have to face. Such action would in particular have considerable influence upon public opinion, which, to judge from letters which have appeared in the local press, is not indisposed to recognise the justice of the claims put forward on behalf of the medical practitioners. We believe that Dr. Edward Jepson, 42, Old Elvet, Durham, the President of the Durham Medical Union, would be willing to advise medical practitioners in other counties as to the steps which should be taken in organisation and the pitfalls which should be avoided in the initial stage; and that, further, any practitioner who might be desirous of obtaining further information with regard to the appointments advertised, will be answered by Messrs. Graham and Shepherd, of Sunderland, the secretaries of the Union.

THE GLANDERS COMMITTEE.

We understand that the Departmental Committee appointed by the Board of Agriculture has now concluded its examination of witnesses, and will shortly meet to consider its report. This Committee was appointed some six weeks ago to inquire into the prevalence of glanders, and to suggest any better means of dealing with that equine scourge than those at present in force. Lord Stanley, M.P., is Chairman; Major Tennant and Mr. Cope represent the Board of Agriculture; Dr. Collins represents the County Council of London; and Baillie Chisholm the Corporation of Glasgow. The veterinary profession has Mr. Malcolm as its spokesman, while the large owners of horses will probably consider their interests safe in the hands of Mr. Baxendale and Colonel Colville. These gentlemen, together with Mr. Hardy, M.P., compose the Committee. Witnesses have been examined from London, Glasgow, Birmingham, and Liverpool; the pathological side of the question has been dealt with by Professors McFadyean, McCall, and Axe, and Messrs. Hunting and Shore. Much interest naturally attaches to the use of mallein as a diagnostic, and to the question of compensation in the case of compulsory slaughter, M. Nocard has claimed that mallein has also a curative influence, or, at any rate, that horses which "react" to a first inoculation cease to do so on subsequent testing; but the interpretation to be placed on these experiments is as yet not clear. Although the cases of glanders occurring in man are few—some dozen only have been recorded during the last six years—the horrible nature of the inoculated disease and its almost uniform fatality remind us that the interest attaching to the Committee's investigations is not exclusively for the veterinary profession.

PARLIAMENTARY INFLUENZA.

THE ventilation of the House of Commons may almost be considered a matter of national importance, and from time to time scares about the quality of the air served out to our legislators agitate the public mind. The "Anxious Wife of an M.P." is seriously alarmed at the havoc worked by influenza among the occupants of the green benches, and in a letter to the *Times* accuses the "vitiated" atmosphere of St. Stephen's of being directly responsible for the virulence and spread of "this terrible plague" there. No doubt the frequently overcrowded condition of the House itself, as well as of its library and dining and smoking rooms, must encourage infection introduced from outside to do its work, but we have as yet heard no evidence which compels us to believe that the disease had attacked M.P.s in greater proportion than ordinary members of humanity. The popular notion to the contrary seems due in all probability to their greater social prominence, and to the consequent journalistic record of their occasional deviations from sound health and withdrawal from public life. This is then a direct testimony in favour of the air of the House of Commons, which we have always maintained to be, considering its source, and the many complexities of the machinery by which it is diffused, free from injurious adulteration and in no way prejudicial to health. At no period even of the longest sitting can the "stuffiness" so characteristic of every other large public building be detected, and the only criticism really deserving of serious attention is that the air is perhaps rather too hot and dry, a matter easy of removal by the experienced officials in charge of the department.

MAIDSTONE'S WARNING TO LONDON.

LAST Tuesday the London County Council discussed a joint report from the Public Health and Water Committees on a reference made to them last October to report whether the causes which led to the typhoid epidemic in Maidstone had any parallel in the conditions of the London water supply. The Committee proceeded to ask that the methods of filtration carried out by the London water companies might be investigated by the Council's officers, but permission was not accorded by the companies. The Thames Conservancy appeared to be similarly indisposed to facilitate the acquisition of information by the County Council of the sources of sewage pollution which continue along the valley of the Thames. Dr. Young, one of the Council's assistant medical officers, was instructed to visit the valleys of the Lee and Thames. Dr. Young's inspections appear to have revealed a state of things which cannot be read without alarm; from more than forty places situated in the Thames Valley above the intakes of the water companies, crude or imperfectly-treated sewage was reported to be polluting the river in 1898. The report of the Local Government Board on the Maidstone epidemic demonstrated once again that water polluted with sewage at its source produced typhoid fever at its distribution. It is true the presence of the "bacillus typhosus" was not demonstrable, but this, in view of its life-history, is not surprising, and the report of the Local Government Board emphasises the necessity for "chemical and bacteriological examinations being supplemented by skilled inspections of the actual conditions—geographical, topographical, and sanitary—of the surroundings of the source of supply." The chemist, engineer, and medical officer of the Council have reported to the Joint Committee, and concur in the view that sewage-polluted water, though it may be rendered innocuous by efficient filtration, must ever be a perilous source of supply for purposes of consumption. Meanwhile, the House of Commons has rejected the proposals of the London County Council to seek a purer supply from the hills of Wales than can ever be furnished by the rivers Thames and Lee, and London is again doomed to wait for such advantages in regard to water supply as have already been accorded to Glasgow, to Birmingham, to Manchester, and Liverpool. The discussion in the Council was adjourned by the arrival of the hour of seven, but it is probable the water question for London will ere long again become acute.

KALA-AZAR.

DR. HAYMAN THORNHILL, Colonial Surgeon, Northern Provinces, Ceylon, writes to refute Captain Leonard Rogers's contention that kala-azar is an infectious malarial fever. Dr. Thornhill ascribes kala-azar to ankylostomiasis existing in persons infected with malaria. Captain Rogers found that ankylostomiasis was so universal in Assam, and infected others than those suffering from kala-azar to such an extent that he refuses to consider the conditions as cause and effect. Dr. Thornhill holds that Captain Rogers's opinion of direct infection by the breath, and indirect infection "after the virus has passed through the soil," is contrary to modern scientific belief. Both observers agree with Captain Giles that the best method of treatment is removal of all healthy people to a new site. The distance to which they are to be removed is, however, a matter of dispute. The cause of the check given to the disease by removal is considered to be freedom from the infected soil and surroundings; but while on the one hand Captain Rogers holds the virus to be malarial, Dr. Thornhill contends that it is freedom from impregnation by the ankylostoma larvæ. Captain Giles, who originally investigated this disease in Assam, recommended, in addition to removal, disinfection of the old site, improved water supply, and the use of special latrines at the new site. Dr. Thornhill finds fault with Captain Rogers for neglecting to recommend these steps so strongly advocated by Captain Giles.

SICKNESS AND PUNISHMENT IN THE ARMY.

THE discussion which took place in the House of Commons on March 17th with regard to the death of John Lorrimer, a private in the 17th Lancers, who died while under punishment, raises several points of importance. The medical details of the case are not very clearly stated, but it would seem that the man had been suffering from diarrhœa or dysentery, and the Under Secretary of State for War is reported to have said that "the *post-mortem* examination showed that the young man died from a clot of blood which had entered the aortic ventricle of the heart." Obviously Mr. Wyndham was misreported or he misunderstood the technical terms used in the report of the *post-mortem* examination. The civilian medical practitioner who examined the man during his period of punishment appears to have formed the opinion that he was malingering. Although this opinion was falsified by the result, it does not appear that there was any want of due care, but at worst an error of judgment. But as Mr. Wyndham himself suggested, the case raises the question whether the system followed in the army in such cases is not at fault. Dr. Clark stated in the course of the debate that the name of the practitioner in question did not appear on the *Medical Register*, but Mr. Wyndham replied that he possessed the degree of M.B. It will be a matter of surprise to most members of the medical profession to fin that the War Office, as would appear to have been the case in this instance, should have sanctioned the appointment even to temporary charge of a person who was not registered. We pointed out some time ago that the revised regulation for admission to the Royal Army Medical Corps needed further revision, with a view to reducing the conditions as to qualification to the simple provision that a candidate should be registered under the Medical Acts. The fact that Mr. Wyndham, in the course of Dr. Clark's speech, interjected the remark that "all qualified practitioners are not registered" appears to show a disposition to defend the appointment by the Government of unregistered practitioners to responsible offices. This should not be. The law has established one criterion only, and Government departments ought most undoubtedly to set an example of obedience to the law.[1] Possibly if the Director-General should see his way to modify the regulations in the manner above indicated, the mere fact of the revision would serve to impress on the War Office officials the importance of the point. The death of this young private has also again called attention to the nature of the punishments inflicted in the army, and the country will share the sense of relief with which the House of Commons received the assurance that a serious inquiry was in progress. To have to carry a shot from one cup to another round a circle or to turn a crank which does nothing beyond registering the number of its own revolutions are stupid and therefore degrading forms of punishment. The men who are subjected to them are not criminals, but they have broken some rule of discipline; they must be punished, but surely there is enough ingenuity in the War Office to devise some form of punishment less futile.

LEADLESS GLAZES.

MORE than a century ago serious efforts were made by manufacturers in this country to eliminate lead from pottery ware, and now, after the lapse of 100 years, the same subject is still being debated. Leadless glazes formed the theme of a lecture recently delivered at the Society of Arts by Mr. Wilton P. Rix. Pottery manufacture is almost coeval with man. It is interesting to know that the employment of lead in glazes for pottery goes back far into the recess of time. In Egyptian and Assyrian earthenware lead has been found, while the softer production of Persia and the Samian ware of the Roman period seemed to have been dipped in a leadless glaze. So much public attention has now been devoted to the matter, that it is more than likely it will not again be shelved until some solution of the problem has been arrived at. The amount of sickness in the Potteries of Staffordshire is too great, and the number of preventable deaths too large, for the Legislature to remain inactive. Mr. Rix states that the industry is fatal to 1 in 300 of the 60,000 workpeople in the Potteries. He estimates that 1 in every 8 suffers more or less from plumbism. While it is not denied that beneficial results have followed the operation of the Act of 1895, the number of fatal cases of plumbism still remains unpleasantly large. Dippers, ware cleaners, glost placers, and majolica paintresses suffer more in proportion than the other hands in the factories. We are glad to see that Mr. Rix emphasises what has been urged in the pages of the BRITISH MEDICAL JOURNAL, namely, that young women are more susceptible to plumbism than men, and that there is also an individual idiosyncrasy whereby while one person may be overpowered in a few weeks, another may go on following his employment for years, and apparently suffer no inconvenience. The lecture was delivered at an opportune moment, and it was more than fitting that it should have been given before the Society of Arts, for as long ago as 1794 that body offered the premium of a gold medal or £30 "to the person who should discover to the Society the cheapest, safest, and most durable composition fit for use for the purpose of glazing the ordinary kinds of earthenware without any preparation of lead and preferable to any hitherto in use." Although this offer was repeated annually for twenty-five years, it was not until 1820 that the Isis Gold Medal was awarded to Mr. J. Rose, of Coalport, Shropshire, for his porcelain glaze. No competitor, however, has as yet succeeded in satisfying the requirements of the Society. The offer still remains open. Numerous leadless glazes have been made during the last fifty years, but it is unnecessary to mention the names of the various potters or of the districts where experiments were made, for most of the efforts failed, because the glazes did not stand the fire or lost brilliancy of colouring. In looking back upon these experiments it would almost appear as if the potters had been too readily disheartened by lessons which ought to have stimulated them to fresh exertion. They appear to have found it easier to yield to the demands of the public for finely-polished and beautifully-coloured ware, which undoubtedly can more readily be obtained from a glaze containing lead than from one without it. At the present time the belief is pretty general that even these advantages can be secured by leadless glazes properly applied. It is necessary that our manufacturers should be bolder, that they should make fresh efforts to produce earthenware by newer methods, and, while success may not come immediately, yet come it will. It is impossible to visit the Potteries of Staffordshire without being struck by the lack of enterprise, comparatively speaking, and by the air of contentment exhibited, particularly by smaller manufacturers, who in their works to-day have not made any substantial advance over their forefathers. Industrial conservatism such as this can have no place in an age which recognises the various parts played by technical education, experiment, enterprise, and international competition in developing and locating the trade of the world.

BRITISH ASSOCIATION MEETING IN BRADFORD IN 1900.

THE arrangements which are being made for the meeting of the British Association in Bradford in 1900, under the presidency of Sir William Turner, are in a forward state. An influential general committee has been formed under the presidency of the Mayor, and special committees have been appointed to undertake the management of the local arrangements. The local secretaries are Mr. George Maguire (Town Clerk), Mr. Ramsden Bacchus, and Mr. J. E. Fawcett. The last occasion on which the Association met in Bradford was in 1873, but since then the city has enlarged its borders and nearly doubled its population. Placed as it is in the very centre of a manufacturing district, and yet within easy reach of the Yorkshire dales and the very interesting limestone region around Settle, Bradford should attract a large number of visitors to the meeting, and there is little doubt that the citizens will, with characteristic Yorkshire hospitality, make their guests heartily welcome.

INCREASE OF INFLUENZA AND DIPHTHERIA IN LONDON.

THERE was a marked further increase last week in the mortality from influenza in London. The deaths directly referred to this disease, which had been 97 and 100 in the two preceding weeks, further rose to 125 during the week ending Saturday last, and exceeded the number recorded in any week since March, 1895. No fewer than 94 of these were of persons aged upwards of 40 years, including 56 of persons above 60 years of age. The increase in the number of deaths from influenza in the metropolis was mainly due to the rapid spread of the disease in West London, where more than twice as many fatal cases were recorded than in any preceding week during the present epidemic, the districts suffering most severely being Paddington, Kensington, and Fulham. In South London, where influenza has hitherto been proportionately most fatal, there was an actual decline in the number of deaths referred to the disease, although it continues to be very fatally prevalent in Brixton and Wandsworth. The mortality from diphtheria in London last week showed a marked increase, 45 deaths being recorded, against 29, 48, and 36 in the three preceding weeks. Of these 45 fatal cases, 5 belonged to Camberwell, 3 to Kensington, 3 to Islington, 3 to Newington, and 3 to Lambeth sanitary areas. The notifications of diphtheria in the metropolis, which had been 207 and 229 in the two preceding weeks, were 203 during the week ending Saturday, March 18th. In West, North, East, and South London there was a slight decline in the number new cases, while in Central London they showed an increase. There was a marked decline in the prevalence of diphtheria last week in Fulham, St. Pancras, Bethnal Green, Wandsworth, and Camberwell; in the last-mentioned sanitary area the new cases fell to 10, against 26 in the preceding week. On the other hand, the number of new cases showed a further increase in Hackney and in Lambeth; in the latter sanitary area 26 new cases were notified, against 15 and 19 in the two preceding weeks. There were 1,255 diphtheria patients in the Metropolitan Asylums Hospitals on Saturday last, March 18th; 132 new cases were admitted last week, against 149, 142, and 131 in the three preceeding weeks.

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[1] The words of Section XXXVI of the Medical Act, 1858, are sufficiently explicit: "After the 1st day of July, 1859, no person shall hold any appointment as a physician, surgeon, or other medical officer either in the military or naval medical service......unless he be registered under this Act."

MICRO-ORGANISMS IN CANCER.

In a communication recently read before the Royal Society, Mr. H. G. Plimmer records a successful attempt at the cultivation of an organism from a freshly excised carcinoma of the human breast. The author was for some time associated with Dr. Armand Ruffer in the histological investigation of malignant tumours, and with him regarded the particular bodies present in the cells of carcinoma as protozoa. Ruffer's great merit lies in his having reduced the hypothetical parasite to one special structure, presenting a central readily stained point, and an uncoloured somewhat voluminous investment: the first was regarded by Ruffer as a nucleus, the second as the body of a protozoic cell. This view received the weight of Metchnikoff's support, and to this must be mainly attributed its wide acceptance. There has always been a certain difficulty in the details of this interpretation, in that the so-called cell-body does not stain like, at least, ordinary cell protoplasm, and that, if it present any structure at all, it is a fine radial striation, ominously suggestive of an artificial cleavage in an investment of some formed material. Mr. Plimmer's growths were made in a fluid medium prepared from cancer juice (as the ordinary broth is from beef) to which were added, after careful neutralisation, 2 per cent. of glucose and 1 per cent. of tartaric acid. The organism so cultivated grew both aërobically and anaërobically, retaining virulence only under the latter condition. His results agreed with those of San Felice and Roncali, in so far as the organism cultivated is a yeast; the elements after a while become invested with a capsule so as closely to reproduce the body present in the cancer cell. It is interesting to recall the fact that Russell regarded the anomalous bodies in carcinoma as yeasts, though whilst he must certainly have seen and so included the particular body in question, he also included others of a different class, staining uniformly with fuchsin, the whole of which he named provisionally "fuchsin bodies." We have gone back to Russell's name, though not strictly speaking to Russell's bodies. With such pure cultures Mr. Plimmer has infected animals by intravenous and intraperitoneal injections, but the results are as yet inconclusive; an abundance of new foci resulted, but these are of the consecutive tissue class, and, though named "endotheliomata," the term cannot be regarded as other than provisional. The most striking experiment is that in which a pure culture was rubbed into a rabbit's cornea after the latter had been scraped. Here a certain amount of epithelial ingrowth took place, but still not enough to constitute an undeniable reproduction of the disease, seeing that various forms of irritation, whether of mucous or cutaneous surfaces, will excite a notable degree of such ingrowth apart from the formation of the malignant disease.

IRISH POOR-LAW SERVICE.

On Thursday, March 16th, a deputation waited on the Local Government Board, Ireland, for the purpose of urging reforms in connection with the Irish Poor-law service. The members of the Board were Mr. Henry Robinson, C.B., Vice-President, Mr. Stafford, Medical Commissioner, Mr. Micks, and Mr. Bagwell. The deputation consisted of the following members:—Sir Thornley Stoker, President of the Irish Medical Association; Dr. John William Moore, President of the College of Physicians; Surgeon Swan, President of the College of Surgeons; Sir William Stokes, Sir William Thomson, Dr. Truell, D.L., Ashford, County Wicklow; Dr. Donnelly, Dublin; Dr. Stanley B. Coates, Belfast; Dr. Neale, Mountmellick; Dr. Oulton, Dublin; Dr. Joseph Smyth, Naas. The matters which were urged upon the Commissioners were, (1) Superannuation, (2) that where dispensary districts are for reasons of public policy deprived of one or more electoral divisions, the medical officers of such districts shall be protected against any diminution of their present salaries; (3) that dispensary doctors should be remunerated for the cost of travelling on dispensary duty; (4) that, as in England, the dispensary red ticket should be presented before 12 o'clock in the day, except in cases of urgency. These claims were put forward with great force by various members of the deputation. The Vice-President, in reply, pointed out the difficulties which had to be overcome. But as to several of the points the Board was in sympathy, and would try to do what would be right for the public interests and the claims which had been so clearly put forward.

MYELOPATHIC ALBUMOSURIA.

The *Semaine Médicale* of March 15th contains a critical notice of this condition under the title of Albumosuria as a Sign of Primary Multiple Sarcomata of the Bones. The writer, Dr. Vladimir de Holstein, points out that Bence Jones's observation of the presence of albumose in the urine of a patient under the care of Sir Thomas Watson and Dr. Macintyre, made fifty years ago, remained for a long time an isolated fact in science; and that the true nature of the bone lesion in that case, and its connection with the appearance of albumose, have only been elucidated during recent years. The occasional appearance of traces of albumose in the urine has long been known to physicians under the name of peptonuria, and a considerable number of cases of multiple new growths affecting the bones have been recorded since von Rustigky published his case of multiple myeloma in 1873. That there might be some mutual relation between these conditions was first suggested by Kahler, in 1889, but the connection can only be considered to have been fairly established during the last two years, and the cases in which it has been proved to exist do not amount to a dozen. Two cases have recently been reported in Germany; abstracts of these are given in this week's Epitome (pars. 207 and 208). The only case that has been investigated in this country since Bence Jones's original observation is that which was described last year from the clinical side by Dr. Bradshaw, and more recently from the pathological side by Dr. Bradshaw and

Dr. Warrington, and on which we commented last week in the BRITISH MEDICAL JOURNAL. The bone lesion which occurs in these cases appears generally to consist in the invasion of the sternum, ribs, and vertebræ, by a cellular growth which proliferates in the cancellous tissue, and leads to absorption of the hard parts, so that the bone is reduced to a mere shell. The substance in the urine is of a very peculiar nature, and though its reactions show it to be a proteid it differs on the one hand from albumen, and on the other from the digestive albumoses known to physiologists. This form of albumosuria differs in many respects from the so-called peptonuria which has been observed in conditions attended with suppuration, especially in the fact that the albumose is found in large quantities, and for a long period. Dr. de Holstein believes that this kind of albumosuria is a constant feature in multiple myeloma, but this cannot yet be considered as established. He also raises the question whether the symptom may arise in connection with other forms of bone disease. Careful examinations of the urine of the patients in surgical wards are needed to throw light on these important points. The writer states that the occurrence of albumosuria has led to a correct diagnosis of the bone affection in Dr. Bradshaw's case, and in a case recorded by MM. Bouchstab and Chapochnikov. We may add that the same result has been reached in the practice of Dr. Reginald H. Fitz, of Boston, U.S.A.

RETIREMENT OF DR. JOHN SIBBALD.

AT the close of the present month Dr. John Sibbald, Commissioner in Lunacy for Scotland, retires under the age limit, after a period of Government service of twenty-one years. Dr. Sibbald was educated at Merchiston Castle School, the University of Edinburgh, and Paris. He took the degree of M.D. in 1854. He was Medical Superintendent of the Argyll and Bute Asylum from 1862 to 1870, when he was appointed a Deputy Commissioner in Lunacy. In 1878 he became a Commissioner. He was joint editor of the *Journal of Mental Science* in 1871-72, Morison Lecturer on Insanity in 1877, was elected a Fellow of the Royal Society of Edinburgh in 1872, and a Fellow of the Royal College of Physicians in 1876, of the Council of which he has been a prominent member. The Board, of which Dr. Sibbald has been for some years the senior medical member, is expected not only to be acquainted with whatever is done throughout the country towards perfecting the arrangements for the care of the insane, but, further, to spread its knowledge, to have a clearly defined policy of its own, and to take the lead in everything which can advance the well-being of the insane. The fundamental principles of its policy may remain unchanged, but it must necessarily be subject to the modifications called for by time, circumstance, and experience. The task, therefore, taken up by Dr. Sibbald of maintaining, carrying forward, and developing the policy laid down by such distinguished predecessors as Sir James Coxe and Sir Arthur Mitchell was no light one. This task Dr. Sibbald has worthily performed. He has been unwearied in his efforts, not merely to keep in line with what may be called the best views generally accepted as to the care and treatment of the insane, but to be in advance of these general views, to examine all new ideas carefully, and to inculcate them, if they seemed good, on others. His well-balanced judgment, and mind clear and singularly untouched by the blinding influence of prejudice or preconceived opinion, made him a safe guide in such matters. Probably the most notable change with which his name will be associated in future is the new phase of asylum construction in Scotland, foreshadowed in his *Plans of Modern Asylums*. His description in this pamphlet of the village asylum at Altscherlitz in Prussian Saxony, and the conclusions which he drew from his examination of that asylum have already influenced the construction of additions to existing asylums; but they will have their full expression in the new asylum for the Edinburgh Lunacy District, which is to be erected at Bangour, Linlithgowshire. The effect of this pamphlet, which was first published in 1896, has therefore already been great, and there is every likelihood that it will yet be much greater, and that it will extend its influence beyond the limits of Scotland. Dr. Sibbald carries with him in his retirement the heartiest wishes of all with whom he has been associated. To the many concerned with the care of the insane, who have benefited by his wise counsel and sound opinion, it will be a pleasure to think that he is not beyond reach, and that he remains as active and as keenly interested as ever in the subject which is nearest his heart.

DIAMOND JUBILEE OF DR. JOHN CAMERON, OF LIVERPOOL.

A SPECIAL meeting of the Liverpool Medical Institution was held on the evening of Wednesday, March 15th, for the purpose of presenting an address to Dr. John Cameron, on the occasion of his completing his sixtieth year of membership. The attendance was large, and letters of apology for inability to be present were received from Sir Seymour Haden, Sir Dyce Duckworth, Mr. Reginald Harrison, Professor D. J. Hamilton, Mr. Robert Hamilton, Dr. Waters, Mr. Puzey, Dr. T. R. Bradshaw, and others. The President, Dr. Macfie Campbell, referred to Dr. Cameron's long services to the institution, more especially as trustee, an office which he had held for fifty years, to his untiring energy, and to the admirable example he held up in his capacity of physician and consultant, and expressed the unanimous wish of the members that he might be spared for many years of health and strength. The address, which was read by Dr. Nevins, was as follows:

> To John Cameron, M.D., F.R.C.P.
>
> The members of the Liverpool Medical Institution desire to congratulate you on attaining the sixtieth year of your connection with the Society. We wish to thank you for your long services as Trustee and Councillor, and as President in 1872, when you worthily upheld the dignity of the chair and of the profession. As Physician to the Royal Southern Hospital for a long series of years you have shown enthusiastic and unwearied devotion to clinical work and to the good of the charity; and as head of the consulting branch of the profession your conduct has always been marked by a high sense of honour and courtesy to your medical brethren. We wish you many years of useful life in our midst, and we take the opportunity of this anniversary to assure you of the esteem and regard of your fellow members, to whom your career will always remain a conspicuous example of professional integrity.

Interesting and appropriate speeches were made by Dr. Nevins, who has himself attained the fifty-fifth year of his membership, by Mr. Edgar Browne, and by Dr. Permewan.

LONDON WATER SUPPLY.

PROFESSOR CORFIELD, in commenting on the analyses sent him of the water supplied to his district in December, points out that the oxygen required to oxidise the organic matter was for the Grand Junction Company nearly three times as much and for the Chelsea Company two and a half times as much as that required in September. He adds that this impurity of the water supplied during the winter months is no new thing, and he reminds the Local Government Board that they have addressed complaints on this account to the water companies many times before. For several years back, with the exception of 1897, there have been more cases of enteric fever a month in the parish of St. George Hanover Square during November and December than during the three preceding months. November, December, and January are not the months of greatest seasonal prevalence, and he suggests that it may be something more than a coincidence that during these very months London is supplied with a water which, according to Sir Edward Frankland's report, contains an excess of organic matter. The report just referred to stated that, "owing to heavy floods and insufficient storage, the water sent out by all the (London) companies, except the West Middlesex, contained an excess of organic matter, which was, however, almost entirely of vegetable origin."

THE LONDON POLYCLINIC.

The Medical Graduates' College and Polyclinic will hold its opening Conversazione at the College in Chenies Street, Tottenham Court Road, on Monday, May 1st. The systematic demonstrations and lectures will probably begin on the following Wednesday (May 3rd). The Institution will, it is hoped, supply a want which has long been felt. It is intended that medical officers in the services and practitioners coming to London from India, from the Colonies, from the provinces, from America and from the Continent should find in the Polyclinic opportunities of studying the rarer forms of disease without the loss of time involved in going from hospital to hospital, and it is expected that the teachers will be able to group illustrative examples of diseases so as to make their clinical demonstrations more complete and more instructive than would otherwise be possible. It is confidently anticipated that this youngest of the medical institutions of the metropolis will have a most successful career, and we believe that under the judicious management of those who have worked with unstinted devotion to bring the scheme to realisation there is good reason to hope that these anticipations will be fulfilled. Many have taken an active part in its promotion, but the persevering efforts, self-sacrificing zeal, and generous liberality of Mr. Jonathan Hutchinson deserve special recognition.

THE CONSTRUCTIVE MURDER AMENDMENT BILL.

The appointment of Mr. Ambrose, Q.C., to a Mastership in Lunacy, and the resignation of his seat in the House of Commons in consequence thereof, has deprived the Constructive Murder Amendment Bill of the services of its introducer into Parliament. It would be extremely unfortunate if his retirement should in any way jeopardise the chance of the Bill becoming law. It is backed also by Sir Andrew Scoble, Mr. Abel Thomas, Q.C., and Mr. Yerburgh, who are all members of the legal profession, and it is sincerely to be hoped that these members will continue to press forward the Bill. Perhaps, in the present state of public opinion on the subject, it is not too much to hope that the Government may be induced to adopt the Bill as a Government measure, or at all events to afford facilities for its passing into law, more especially as it seems that the principle of the Bill was adopted or approved by the Attorney-General in the recent prosecution of the Queen *v.* Collins.

THE INVENTOR OF MATCHES.

On October 31st, 1898, in the little village of Saint Lothaire in the Jura, a monument was erected to the memory of a man of whom the medical profession has great reason to be proud, although to the majority of its members, even in France, his name is probably unknown. Charles Marc Sauria was a country doctor all his life, and practised his profession in the true spirit of its highest ideal, seeking neither wealth nor honours, but doing his duty to his patients often without hope of reward, and content to spend his life in obscure well-doing in an out-of-the-way village. Yet Sauria might easily have made an enormous fortune, for he was the original inventor of matches. He was the son of General Sauria, an officer of the First Republic, and was born in 1812 at Poligny. He was intended for a military career, but an accident which happened to him in boyhood having deprived him of the use of his limbs, he devoted himself to the study of the physical sciences. He early displayed a remarkable turn for mechanics and a marked fondness for experiments. The great discovery of his life was made almost by accident. In 1830, M. Nicolet, Professor of Chemistry in the College de L'Arc at Dôle, where Sauria was a student, showed his class that a mixture of chloride of potash and sulphur in a mortar could be exploded by a blow with the pestle. Sauria at once conceived the idea that if an inflammable substance such as phosphorus could be combined with a detonating mixture light might be produced. He made many experiments, his room becoming, as his biographer says, for the time being a volcano in miniature. Scores of tubes were smashed, explosions occurred frequently, sometimes of such violence as to shake the walls of the room, and the young philosopher often burnt himself severely. At last his perseverance was rewarded and he was able to make matches. He was too poor, however, to patent his invention and he had to spend the rest of his days in the practice of medicine. He ministered to the sufferings of the poor countryfolk at Saint Lothaire for sixty years and died on August 27th, 1895. The only public reward he ever received was the charge of a Government tobacco depôt, which his old schoolfellow, President Grévy, forced upon him in 1881. The income from this source amounted to just £60 a year. Sauria, who was a Doctor of Medicine of the Faculty of Besançon, was an agriculturist of great note in his district, and he was the author of some writings on scientific subjects and of a volume of verse entitled *Jura Pittoresque*. He was a true philosopher, who in his life exemplified as few men have done the principle of plain living and high thinking, and it may be added, noble practice.

MEDICAL PRACTITIONERS IN THE ISLE OF MAN.

In the Isle of Man Legislative Council, on March 22nd, the Medical Bill was read a second and third time, and passed. The Bill provides that only persons registered as qualified in England shall be entitled to recover charges at law; that unregistered persons may not hold public appointments, nor call themselves doctors or physicians, or use any term applying registration. A clause was introduced exempting from the operation of the Act persons who were practising before 1870.

We understand that the candidates for the office of Commissioner in Lunacy in Scotland, rendered vacant by the retirement of Dr. Sibbald, include the two Deputy Commissioners, Dr. A. R. Urquhart (Perth), Dr. Elkins (Leavesden); and Dr. Carswell (Glasgow).

Dr. T. Grigor Brodie, at present Lecturer on Physiology at St. Thomas's Hospital Medical School, has been nominated by the Laboratories Committee of the Royal Colleges of Physicians and Surgeons to be Director of the Research Laboratories on the Thames Embankment.

We are glad to be able to announce that Mr. G. Vere Benson, M.A.Cantab., M.R.C.S., L.R.C.P., has been elected by the Sussex County Council Coroner for the Lewes Division. The division is large and important and includes Hove, Eastbourne, Newhaven, Seaford, Bexhill, Crowborough, and Tunbridge Wells. We believe the office has not hitherto been held by a medical man. The newly-elected coroner, who is a barrister-at-law as well as a member of the medical profession, has for some time held the office of Deputy Coroner for West Middlesex.

The Dental Hospital of London.—The report presented to the forty-first annual meeting of the Dental Hospital of London stated that the sum of £3,000 was required during the current year to place the building fund in a satisfactory position. It is anticipated that the new buildings which are now in course of erection will contain every improvement and convenience that experience with modern science could suggest. Particulars as to the fund will be supplied by the Secretary, Mr. J. F. Pink, at the hospital, Leicester Square, W.C.

MEDICAL NOTES IN PARLIAMENT.

[FROM OUR LOBBY CORRESPONDENTS.]

Poor-law Administration, on which Lord Wemyss moved to appoint a Royal Commission in the Lords at the end of last week, is not yet to be so treated. The noble earl appears to have taken alarm at the movement in favour of old-age pensions and other plans for enabling the aged poor to be relieved outside the workhouse, and so he asked for a thorough inquiry into the working of the Poor Law. Two other speeches were made, but neither favoured the proposal, and Lord Harris, speaking on behalf of the Government, pointed out very forcibly that much had been done to improve workhouse life of late years, and that it was in the power of the administration to do still more without the aid of a Commission. He cited the action of the Government in respect to the Cottage Homes Bill, and hinted that the Select Committee appointed to consider that measure would have other Bills with somewhat similar objects referred to them to deal with in a generous spirit. Until this and possibly other inquiries had concluded, there was no need for another Royal Commission. This being the view of the Government, the motion was withdrawn.

The Army Estimates, which have been discussed over an unusual amount of time this session, were marked on Friday (March 17th) by some features of medical interest. A question was raised as to the death of a young lancer in his cell while undergoing punishment. It appeared that this particular soldier had been attended by a civil surgeon, and not by an army medical officer. It was stated in the debate that the practitioner was a Bachelor of Medicine, but his name could not be found in the *Register* or in the *Directory*. In any case the military authorities ought not to employ unregistered practitioners. This was the first outcome of the case, and then followed a rather sharp criticism of the action of the authorities in making the service unpopular. One member said that for the last dozen years they had "the sweepings of the medical schools" in the army; and the senior member for Trinity College, Dublin, stated that the College had till recently refused to allow students to prepare for the Army Medical Service. It was pointed out that the recent concessions had changed all this. Afterwards the old system of regimental surgeons was referred to, as an arrangement under which the surgeon would have known more of a soldier than to have allowed him to be condemned to punishment when suffering from dysentery and when within a few hours of his death. The advantages and disadvantages of the regimental system were well put by the late Secretary of State for War, and the discussion, which had lasted some three hours, then came to an end. After this the case of Veterinary Surgeon Finlayson was brought up as an instance of harsh treatment in not holding an inquiry before requiring the officer to resign. The case as regards the refusal of an opportunity to the officer to vindicate his character resembled one which excited much attention three years ago. The Under-Secretary defended the action of the War Office, and then the interest of the members travelled off to Wei-hai-Wei and the Chinese regiment.

The Food and Drugs Bill, which is mainly framed to deal with agricultural food products, will not be sent to the Grand Committee till after Easter. There will be opposition to that course, as many members would prefer to deal with the Bill in the Committee of the whole House. There are already nine pages of amendments, and there is evidence daily that the Bill is exciting a good deal of interest in the country. The use of borax as a preservative for bacon was promised Mr. Chaplin's attention in answer to a question on Monday last, and on the same day an important deputation of local authorities, on which the medical profession was well represented, urged upon the Minister for Agriculture the frauds and dangers connected with condensed and separated milk. Some members would gladly stop the importation of these articles altogether, but the deputation only wanted them labelled as bad for infants and invalids. The Government, however, do not feel justified in taking any course which might have the effect of depriving the poor of a cheap food, and so will only go so far as to prevent articles being sold under misleading or inaccurate descriptions. This is generally felt to be the strongest position that can be taken up.

The London Water Supply came under consideration in quite a crop of Bills last Tuesday. There were two East London Bills, a Metropolitan Water Companies and a West Middlesex Bill—all these passed a second reading with the support of the Government, as they all deal with methods of increasing the efficiency of the existing water companies. The great Bill of the County Council dealing with the scheme of bringing water from Wales, however, met a different fate. It was rejected on a division by 76. The Government opposed it on the ground that the Royal Commission was dealing with the subject, and that it would be unwise to sanction a great scheme like this before receiving the report of a body inquiring into the whole subject.

The Imperial Institute was the subject of a question this week as regards the portion devoted to India, and the Secretary of State said that as India had contributed very liberally to the Institute its rights in the building would be reserved for Indian objects. This is interesting, as the new University of London will, if it takes up its domicile at the Imperial Institute, require to have its own section of the buildings perfectly and inalienably reserved for the University and its work.

The Conscientious Objectors Vaccination Bill has been blocked by Mr. Logan and Mr. Ascroft, and as these members sit on opposite sides of the House it looks as if there would be little chance of the Bill slipping through this session.

The London Local Government Bill occupied the whole of Tuesday night, and the debate will be continued on Thursday and Friday, when the second reading will be taken. The main line of opposition was developed by Mr. Gladstone, who moved an amendment urging that simplification ought to be the main object of a Bill and not increasing complexity, which would make the unification of London more distant than ever.

Old-Age Pensions came before the House late on Wednesday afternoon in the shape of Mr. Holland's Bill, which gained a high place in the ballot at the beginning of the session. The hour and a half at the disposal of the members afforded time for only three speeches, and so the debate stood adjourned, and nothing was gained except the promise of the Government to refer the Bill to a Select Committee.

THE PLAGUE.

EGYPT AND THE PILGRIMAGE.

THE Egyptian Sanitary Department, in consequence of the outbreak of plague at Mecca, recommended during the sitting of last week that no further pilgrimage from Egypt be permitted this year. The question being one of great importance as affecting Moslem religious rights, it is difficult for the British authorities to interfere directly. The situation is further complicated by the fact that numbers of pilgrims have already started, and the Ulemas, as the interpreters of the Koran, have announced that prohibition of the pilgrimage is an unlawful act. The result has been that, after consultation with the Council of Ministers and several Moslem dignitaries, the Khedive has refused to stop the pilgrimage. It now lies with the British authorities in Egypt in conjunction with the Turkish Government to adopt what precautionary measures they can in view of serious outbreak of plague occurring at Jeddah and Mecca. No trustworthy reports have been received from Arabia, as the Turkish power in the province of Hedjaz is set at naught by the rebels, who in some instances control the routes of communication. The Porte has at length consented to adhere to the ordinances set forth by the Venice Sanitary Conference. Considering the danger to Europe and Africa of an incursion of plague through Turkish neglect, the attainment of the support of the Porte in this direction is considered a great diplomatic triumph.

BOMBAY.

The mortality from plague in Bombay continues to decline. Before the Plague Commission, Colonel Robertson, Resident of Mysore, and Mr. Caddell, Assistant Resident Officer, produced a number of statistics concerning plague in Mysore and Bangalore. Dr. Mullanah sent in a report of experiments made by order of the Police Commissioners of Hyderabad State, upon the effect of Haffkine's fluid on rabbits. Khan Bahadur Patel narrated the measure adopted by the Parsees to suppress plague. He did not believe plague was contagious, and had been inoculated seven times with the result that his general health was improved

CONTINENTAL CRITICISM OF ENGLISH RIFLE BULLETS.

THE CONVENTION OF 1868 (ST. PETERSBURG).

IT appears likely that we in this country may shortly be called upon to come to a decision as to whether or not we are to be content to use in our wars only the same small-arm bullets that other great military Powers are employing.

The weapons with which the foot soldiers of all the civilised Powers are at present provided are a small calibre rifle, a mantled bullet to be fired from it by smokeless powder, and a sword bayonet. Some differences exist between the weapons of the different Powers, but they are so slight that they may be disregarded.

The question that presses on us to-day amounts to this—Shall a change that will render the soldier's rifle bullet more deadly and powerful be permitted or not; and, if so, under what circumstances? Hitherto, with one notable exception, no objection has been made to any Power increasing the deadly nature of its arms. The large weapons and projectiles of the artillery have been made more and more effective by modern inventors, not only without objection, but with general approval; explosive shells of greater size, longer range, and increased destroying power are fired from them; Maxim and Nordenfelt guns, mines, torpedoes, Lyddite shells of tremendous energy, etc., are sanctioned in modern warfare by the general voice of all the nations concerned; and electricity, aërial balloons, and submarine vessels have been talked of and examined into without any expression of remorse by the great military Powers of civilisation.

Even in the small arms for its infantry each State has been free to adopt, without cavil, variations in regard to its bayonet; its rifle may possess a greater range, and its bullet be propelled with increased velocity and energy, and by any explosive powder, smokeless or otherwise, as it sees fit. Those who devote themselves to sport, and have to face savage beasts, have expended their ingenuity freely in perfecting the most deadly projectiles to discharge from their hand-weapons so as to destroy more surely and easily the game which they may be hunting.

Humane individuals have written here and there in vain against the increasing deadliness of modern weapons, large and small, but their desire to arrest the increasing power of our means of offence and defence has only led to the one limitation referred to, namely, that since the St. Petersburg Conference of the Powers held in 1868, explosive bullets from small arms are not employed by civilised nations in their warfare. To many the restriction seemed to be a singular one—that while the most destructive instruments and explosives were to be sanctioned for the killing of mankind, from artillery or otherwise, save only from small arms, a missile that was permissible against a charging tiger, elephant, or buffalo, was to be forbidden against a charging human enemy, however fierce and tiger-like his onset might be. That, however, is the position in which the military Powers are placed at the present time.

THE EFFECT OF THE MANTLED PROJECTILE.

The efficiency of the modern rifle with its mantled projectile has never yet been extensively tested and decided in a great war between any two of the great civilised Powers. They have been used, however, in short wars in various parts of the world—in South America, Greece, the Indian North-West Frontiers, Cuba, Madagascar, Egypt, and elsewhere; but the reports received regarding their powers have not been all to one effect. In nearly all instances where competent persons have described them, as far as they can be ascertained in warfare, they have seemed deadly enough where vital or important parts have been struck, while in non-vital parts, particularly in mere flesh and muscle wounds, the small size of the bullet, the hardness and unyielding nature of its mantle, and the rapidity of its flight, have sometimes caused the wounds inflicted by it to resemble moderately severe punctured wounds that may not seriously disable their recipient, and occasionally, even when numerous, leave him, we may say, almost as efficient for carrying on warfare as he was before he received them.

SOFT-POINTED BULLETS.

England especially has been forced by circumstances to lay these lessons to heart. Her soldiers have found, in fighting with active and brave barbarian foes, that the mantled bullet was sometimes a missile of doubtful efficiency, and she has consequently been led to arm her soldiers, in barbarian contests, with a bullet capable, like the former leaden projectile, of expanding when it struck, and of rendering flesh wounds as disabling as they used to be when the older weapons were used.

For this end her troops have been armed with bullets whose mantle was partly removed at the apex, so that while they retained all or nearly all the power, long range, velocity, and even all or sufficient of the penetration of the fully-mantled bullets, they were more efficient in disabling the enemy when only flesh wounds were produced.

The gain thus obtained seemed, so far as can be judged, no slight one. As an instance of its importance to ourselves it is believed by many that in our recent advance into the Soudan, and at the battle at Omdurman, had our troops been armed only with such small arms as are used by the other European Powers the issue of that campaign might have been different and even adverse to our arms. At the very least it is held that the killed and wounded in our army would have been greatly more numerous.

Hence the use of bullets partly deprived of their mantle, so as to be more effective in flesh wounds, is, it will be apprehended, one of no little importance to ourselves, liable as we are at any time to be engaged in wars with semicivilised or barbarous races who practise no humanity in their warfare and would unhesitatingly employ against us any weapons they might obtain, even the expanding bullets introduced by ourselves, or any other destructive engine with which they might be furnished. If our foes were spared in such a case it would be at the expense of our own soldiers' lives.

So much may be said on behalf of these bullets. The other side of the question must next be shown.

THE DUM-DUM BULLET.

Continental authorities have been directing their attention to the bullets we have been using in our wars; and Professor von Bruns, of Tübingen, as was reported in this JOURNAL,[1] made experiments with bullets resembling the so-called Dum-dum bullet which was used in our Tirah campaign and wars on the north-west frontiers of our Indian Empire. His results were vitiated by the fact that he employed Maüser big-game bullets, showing a long point of soft lead, while the Dum-dum bullet had its leaden core barely visible at its apex; nevertheless, such as they were, his results were accepted by the Society of German Surgeons, in a meeting at which a large number of their military surgeons were present, and they concurred in von Bruns's conclusion that the German military authorities should take steps to obtain by international agreement such a modification of the St. Petersburg Convention that only such small-bore leaden bullets be employed in war as are wholly steel-mantled, or at least mantled at their tip.

THE WOOLWICH BULLET.

Subsequently to this, in our Soudan campaign against the Khalif Abdullah and in the battle of Omdurman, a different form of bullet was served out to and employed by our troops. It possesses properties similar to the Dum-dum bullet, and is known as the "(Mark IV) C," or Woolwich bullet.

Of these projectiles, described and delineated in his pamphlet as containing an air chamber opening at their apex and being therefore hollow-fronted or expanding bullets, von Bruns obtained a supply, through a London firm of manufacturers whose name he does not give, and instituted a series of experiments as to their effects. On these he has now reported in a pamphlet entitled *On the Effects of the Most Recent Bullets in Use in the English Army (Hollow-Fronted Bullets)*.[2]

Experiments on wood, clay, a living horse, and human cadavera, at distances of from 20 to 600 metres, are detailed in his report, and illustrated by photographs and skiagraphs. He arrived at the conclusion that, in a ballistic point of view, these bullets are equal to the fully-mantled bullet, the hollow apex in no wise impeding their flight; indeed, it seems from his figures, which are, however—as he did not possess the fully-mantled English bullets—obtained not from trials but from calculations, that their velocity is even slightly greater than that of the fully-mantled bullet. He further concluded that they lose their shape more readily on striking an object than the fully-mantled, but less readily than bullets with an exposed leaden apex.

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[1] BRITISH MEDICAL JOURNAL, September 17th, 1898, p. 813: Modern Small Bore Bullets.

[2] *Ueber die Wirkung der neuesten englischen Armeegeschosse (Hohlspitzengeschosse).* Von Prof Dr. v. Bruns, Tübingen 1899.

When striking at short distances they produce much more severe injuries than the fully-mantled bullet, and enormous destruction in cavities containing liquids, such as the heart and bladder, the bullet expanding and flying into pieces when it strikes such viscera. Compared with the leaden-pointed bullets they produce decidedly less severe injuries of the soft parts (flesh), but equal them in destructive power should they strike upon a bone. As compared with fully-mantled bullets their greater destroying power on soft parts exists up to 400 metres, and up to 600 metres on bone; but beyond these ranges these effects cease, and their wounds are similar to those inflicted by the fully-mantled bullet. In penetrating power they resemble the latter, save when striking any object which destroys their shape, but leaves the fully-mantled bullet unaltered, and then the greater their loss of form is, the less of course is their penetration.

PROFESSOR V. BRUNS'S EXPERIMENTS.

But it will, perhaps, be best to give the translation of von Bruns's own words, selecting the most important passages.

"Our experiments have shown that the hollow-pointed bullet is unusually easily altered in form when fired from short ranges......In hard and dry substances struck in the usual way, the alteration of form occurs in a regular fashion. The apex is broadened out, its cavity widened, and the mantle tears open in front; the leaden core next emerges and spreads out in front into a mushroom shape, while the posterior part of the mantle is left empty. In the greater degrees of alteration the mantle is torn from point to base by several longitudinal rents, and is at the same time folded backwards to such a degree that it is turned inside out, this going sometimes so far that the front parts of the strips of mantle turn back behind the base for a distance equal to that of the whole length of the original bullet. The leaden core is partly squirted about, and partly kneaded firmly on to the strips of the mantle.

"But the greatest degree of loss of shape of the hollow-pointed bullet occurs when it is fired into moist or fluid materials, which do not alter in any way the shape of the fully-mantled bullet. In all our experiments with moist clay or water, both mantle and core were shattered into small or very minute fragments, even when—to lessen its velocity—the bullet had previously traversed two, three, or four bags of sawdust. This violent effect is to be explained by the fact that on striking the soft or liquid material the column of air enclosed in the cavity of the bullet and the water forced into it attained so high a degree of pressure that the projectile exploded.

"The missile was often found broken across near its anterior end at a point corresponding with the bottom of its air chamber. In such cases the chamber was, as a rule, enlarged conically towards its blind end, and to such an extent that its wall was thinned out to a sharp edge. And clearly the separation of the bullet into two parts was due to the wall of the air chamber being so blown out as to burst.......

"An English fully-mantled bullet, fired from 25 metres distance, will pierce thirty-nine or forty planks of deal each 1 inch thick; the hollow-fronted bullet thirty-seven or thirty-eight. But in beech wood, on the other hand, where the former bullet retains its shape and the latter bullet loses its shape, the fully-mantled bullet at the same range penetrates for 54, the hollow-fronted only for 14 centimetres. The penetration, therefore, where much loss of shape takes place, is lessened to about a third part....... The fully-mantled bullet pierces an evenly cylindrical canal scarcely as wide as the calibre of the missile. The hollow-fronted bullet makes a track, which regularly shows at first a cylindrical and then a conical form, the cylindrical part being on an average 6, the conical 8 centimetres in length, broadening out as it goes from 8 to 36 millimetres in diameter.......

"The hollow-fronted bullet, when fired into solid substances, is less altered in shape, but if into fluids is much more altered in shape than is the leaden-fronted bullet....... In liquid and semi-liquid substances, such as water and moist clay, the hollow-fronted bullet is so completely broken up that both mantle and core are rent into fragments, some of which are of very small size; while the leaden-fronted projectile is very much broadened out, but retains its continuity, the core being shortened from 30 down to 6 millimetres in length, and the mantle torn into strips and bent backwards towards its base.

"The three forms of bullet, fully-mantled, leaden-pointed, and hollow-fronted, do not show such differences in their effects as the above when fired at short ranges against very resisting objects, such as steel plates. Here the penetration is pretty much alike in all; steel plates of 14 mm. thickness show an indentation 6 or 7 mm. deep, and on the other side a bulge, which may, if the plate be only 12 mm. thick, exhibit cracks and fissures. This result is due to the energy of the bullets, whose relative hardness is of little consequence in comparison with the iron or steel of the plate.......

"Taking up next wounds of the soft parts; they are at short ranges (25 to 50 metres) distinctly more severe if they affect the extremities than those from the fully-mantled bullet, though they do not produce the vast destruction of the leaden points. Exit and entrance wounds are always separate, the former a circular opening of 7 or 8 mm. diameter, the latter a gaping lacerated wound 30, 60, or 90 mm. long. Once or twice the skin had been rent into two to four parallel lacerations, and so was torn into several narrow strips, which were mostly divided across in addition, and so hung in shreds out of the wound. The track of the bullet is always funnel shaped, enlarging towards the exit, and admitting one or two fingers. These are much severer injuries than with fully-mantled bullets, which show, at distances under 100 metres, exit wounds of, on an average, 9, 5, or an extreme of 15 mm. diameter, and a cylindrical track in the muscles of rather more than the bullet's calibre, assuming the funnel shape only when it is very long, and then it is not wider than 25 mm. (v. Coler and Schjerning). The leaden-pointed bullet, on the other hand, often bursts open the track from entrance to exit, leaving a wound 100 to 150 mm. long.

"The bursting effect on the soft parts becomes less at 200 to 400 metres range. There the exit measured once 20 and once 50 mm., but was generally 10 to 15 mm., the track being cylindrical or faintly conical. Tangential shots produce smooth wounds with small entrance and exit apertures. At 600 metres the bursting action on the soft parts disappears, and the wounds are the same as those of the fully-mantled bullet.......

"We see, then, where the velocity is greatest, violent bursting action even in the muscles, but in viscera containing fluid the effect is one so enormous that hitherto it has hardly been paralleled.......... The wall of the heart is completely torn throughout its length and breadth, the exit wound gaping for more than a handbreadth, and measuring 23 cm. by 19 cm., and its margins are much ragged and studded with small fragments of the bullet.......... In the half-filled bladder of a cadaver also, a small entrance wound and lacerated exit wound 35 mm. long were produced by a shot fired 400 metres away.......... This enormous action on the distended heart and the urinary bladder correspond with the results of our experiments on water and moist clay, in which the hollow-fronted bullet burst into fine fragments.

"Next, as to the wounds in bones. At short ranges—25 to 50 metres—the wounds made by hollow-fronted bullets in bones are incomparably more severe than those caused by fully-mantled bullets, and about as severe as those from leaden-pointed projectiles, and the missile is always broken up into small fragments. The extensive lacerations of the soft parts behind the bones are very prominent. While the aperture of entrance in the skin measures generally but 7 to 8 mm. the exit aperture is enormous, measuring 8 to 20 cm. in length and 6 to 15 cm. in breadth. The latter are therefore not mere exits or rents, but defects as large as the hand, with shattered and frayed margins, showing fragments of muscles and tendons hanging out of them. This destruction of the skin is due to its being burst into two, three, four, or six longitudinal rents, with cross tears between them, so that they are partially projected outwards..........

"The injuries to the bones are not specially marked by an unusual degree of fissuring......but the splinters are smaller and more numerous, and are hurled along the track of exit and out of its aperture.

"At 200 to 400 metres range hollow-fronted bullets likewise cause decidedly greater injuries of the bones than the fully-mantled, although the difference is somewhat less marked. But the extensive destruction of the soft parts beyond are still distinctive: the exit wounds where the shafts of the bones are struck show a length of 5 cm. to 16 cm., and a breadth of 3 cm. to 11 cm. The exit wounds are no mere burst wounds but broad defects......The area of comminution behind the bone, of the size of a walnut, hen's egg, or a goose's egg, extends generally to the very aperture of exit.

"The splintering of the bones in shaft fractures is as extensive as at short ranges, though the fragments are less numerous, and remain in partial connection with their periosteum......The missile is always broken up into fragments in the injuries of the shafts......

"At a range of 600 metres hardly any of the special effects of the hollow-fronted bullets can be observed. Only where the shafts are struck and the projectile broken up, is the exit aperture in the skin sometimes found as long as 5 cm. The area of comminution may be as large as a hen's egg, but does not reach so far as the exit in the skin. We noted, however, a number of minor injuries of the bones, such as are regularly produced by the fully-mantled bullet at still longer ranges."

OBSERVATIONS ON PROFESSOR V. BRUNS'S EXPERIMENTS.

These quotations represent von Bruns's views. But we must again emphasise the fact that whenever he mentions Dum-dum or leaden-pointed bullets, or where we have done so in commenting on his paper, the words really refer only to the sporting Maüser lead-pointed bullet, a very different missile from the real Dum-dum. As was shown in this JOURNAL,[3] he has never experimented with the leaden-pointed bullet used by the British troops.

One interesting point in his paper is his mention of the recent introduction of a new model of fully-mantled bullets capped with a thimble of lead upon the apex. He does not state, and the writer does not know, where or by whom these have been manufactured, but they are presumably of German or Continental origin.

In the concluding paragraph of his present pamphlet, von Bruns speaks of his writings as having aroused a feeling of animosity in the English newspapers. We believe we can assure him that no such feeling exists, or if it does, that it is limited to a very few. We in this country, even where we cannot entirely agree with him, are, on the contrary, indebted to him for the observations and evidence he has contributed to this most interesting subject. But many of our campaigns are necessarily conducted under conditions so different from those which Germany, for example, is called upon to face, or can understand, that we must be careful lest we be led, by a false philanthropy, in such a matter to adopt suggestions that may prove most unjust and even inhumane to our own troops in their wars against desperate enemies devoid of all humanity. But we ought to say that if von Bruns in his writings will avoid such phrases as the following:[4] "It is principally the hard mantle which makes the injuries of the arms of small calibre less barbarous, actually indeed even too little barbarous for the English military authorities;" he will do something to avoid arousing the feeling of animosity on which he animadverts, and towards helping the medical profession and the public to discuss and settle the whole question in that spirit of humanity and justice which it conspicuously demands.

PROFESSOR ESMARCH'S APPEAL.

Von Bruns's observations have naturally excited much interest, and his earlier work on leaden-pointed projectiles has evoked from Professor Friedrich von Esmarch of Kiel—well known to the medical profession in our own country as one of the greatest and most magnanimous of the Continental surgeons, and one who is by no means to be suspected of unfriendliness towards England—an appeal which we give in a somewhat abbreviated translation as follows. It is addressed to the Editor of the *German Review*,[5] and dated Kiel, December 10th, 1898:

"An international Conference of Peace will shortly be summoned at the suggestion of His Majesty the Emperor of Russia. According to the concluding words of the Imperial memorial of August 24th, 1898, 'this Conference should by the blessing of God be a favourable omen for the coming century. It should unite in one powerful combination the efforts of all the States that are honestly concerned about it towards the triumph of the principle of universal peace over the elements of disturbance and disorder. It should stamp its assembling with a unanimous consecration of the principles of right and justice, on which rest the security of States and the well-being of peoples.'

"The future will show how far the noble intentions of the Russian Emperor, to which His Majesty our Most Gracious Kaiser has given his most hearty adherence, are capable of being realised. No one, of course, expects or hopes that there is any immediate prospect of wars being put an end to. The opposition of different nationalities to one another is still too great for this, as well as the supposed or actually conflicting interests of different peoples. Sooner or later we are likely to see war again, with the horrors, suffering, and misery that inevitably follow in its train.

"Meanwhile, the philanthropist must remain content to be for ever striving to diminish, as far as may be, at any rate, the barbarities of warfare ...... It is our duty as medical men to take the lead of others in entering our protest in the name of humanity when arms or projectiles are introduced into use that go beyond their necessary object of disabling a foe, and mutilate him as well. There is considerable reason to fear that this last is what will take place owing to the introduction of the new military rifles. The small-bore weapons that have now been adopted by almost all European nations possess a very high initial velocity (640 metres). Their projectile is a leaden bullet covered with a mantle of hard metal. In employing such projectiles their power of penetration is found to be very considerable. At a range of 3,000 metres they are capable of traversing three or four human bodies one after the other. But it is otherwise if the metal mantle be removed from the point. In that case the very great energy (*vis viva*) co-operates with the loss of shape of the small-bore, leaden-pointed bullet, to produce a fearful explosive effect (*Sprengwirkung*) in the hard, and especially in the soft, tissues of the body. Bullets of this kind, the so-called Dum-dum bullets ...... have been employed by the English troops in their Chitral campaign against the tribes on the Indian frontiers, and gave rise to 'truly barbarous wounds,' so that these missiles would, the English surgeon, Davis, thinks, 'most probably not be permitted in any European war.' Before they were made use of the English soldiers are believed to have found that many of their antagonists, after being pierced through by fully-mantled bullets, were still able to continue their onset. And, according to Hamilton, similar projectiles have been produced in Egypt.

"In consequence of these reports, Professor Bruns, in Tübingen, instituted a numerous series of experiments on dead bodies with the leaden-pointed bullet, and the injuries produced in this way exceeded the worst anticipations. Bruns found," and so on.

"It is perfectly evident that conservative surgery, which has in the last fifty years achieved such good results in gunshot wounds, must be quite powerless in the presence of such injuries. There would be no help for it but to amputate the limbs of such of the wounded as had not bled to death from the extensive wounds of the soft parts.

"Bruns draws attention to the fact that the energy of the leaden-pointed projectiles is all expended on the object struck, in consequence of the alteration of shape and breaking up of the bullet, that consequently their penetrating power is much inferior to that of the fully-mantled bullets," and so on.

"The employment of such missiles is, perhaps, excusable in a war with fanatical barbarians, who, ignorant of the rules of international law, give and take no quarter, and who, as lately happened in Egypt, though lying wounded and helpless on the ground, yet assailed their enemies when their backs were turned; but it would be a matter for the deepest regret were barbarous engines of destruction ever to come into use in European wars.

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[3] BRITISH MEDICAL JOURNAL, September 17th, 1898

[4] Pamphlet, page 28.

[5] Offenes Sendschreiben, *Deutsche Revue*, January, 1899. p. 103.

"It may occasionally happen that a soldier struck by a mantled bullet may nevertheless rush onwards in his charge; while, if he had been hit by a leaden-pointed bullet he would have been sure to collapse. Such instances cannot justify the substitution for a bullet designed to disable a foe, and nearly always doing it, of another which, as a rule, mutilates him. Such a procedure would be in no harmony with the traditions of this century, which has done so much more than all former centuries in the contest between humanitarian tendencies and the horrors of war.

"Once already in 1868 has an international conference meeting in St. Petersburg done honour to humanity by forbidding by international agreement the use of explosive missiles under 400 grams of weight; and this agreement has been kept inviolate by the nations concerned in it.

"Should the Peace Conference of 1899 decide by international agreement that only such small-bore leaden bullets shall be used as are provided everywhere, or at least on their points, with a mantle of hard metal, such a decision would be, we think, in entire harmony with the high motives of its august convener, and with the unanimous sympathy the Czar's ideas have met with in all the civilised world. And if the representatives of the Powers, great and small, in whose hands the matter lies, will use their influence, so that every wounded soldier shall at once have a protective dressing applied, if they will further use their influence in having the inviolability of the Red Cross deeply impressed on the heart and mind of every soldier, then the conference of 1899, though it may not result in entirely putting an end to war, will notwithstanding occupy an important place in the history of the humanitarian efforts that mankind is making."

We must all sympathise with the generous letter of Professor von Esmarch, and no one can do so more deeply and sincerely than the writer. Yet those who have to interest themselves in the evolution of this question and its true bearings must not conceal from themselves the fact that von Esmarch's appeal, so far as it refers to bullets, was evoked by von Bruns's first paper, which itself proceeded on the unproved assumption that big game Maüser bullets were the same thing as the English Dum-dum bullets, and had von Esmarch known that this was so, in all probability his appeal would not have been written, at least not yet.

Under present circumstances it will be no surprise to Englishmen that the French press should lay hold of von Bruns's publications; that *La Semaine Médicale*, for instance, should (January 18th, 1899) discuss the subject of the hollow-pointed bullet as it had previously done the Dum-dum, and draw attention to his results. Its article is a sharp criticism of the application of "two principles of philanthropy, two weights, and two measures, one applied to civilised peoples, the other to barbarian races and distant countries." The English, it says, have closed their ears to the protests raised against the Dum-dum bullet, and made use in the Soudan war of a projectile whose effects are often more murderous still, an explosive bullet called the hollow-pointed bullet, which bursts into a thousand fragments that pierce and destroy the tissues all around; and in the wars with the more or less barbarous hordes, where the combat takes place at short ranges, produces its maximum murderous effect, leaving the enemy so cut up that surgery is powerless to attenuate the gravity of its wounds. But as the criticism furnishes no new facts or practical ideas we need not further advert to it.

THE CZAR'S MANIFESTO.

The proposals of the Emperor of Russia on the subject of the intended conference against armaments, which reached this country in January last, contain a paragraph that will not improbably be held to include the consideration of the bullets of newer type, its words being "to interdict the use of any kind of new weapon or explosive, or any new powder more powerful than that which is in use at present for rifles and cannon." The appeal of Professor von Esmarch, as well as the approval of the Congress of German Surgeons of the proposal of von Bruns, in his observations on leaden-pointed bullets, to the effect that the German military authorities take steps to exclude from use in war all small-bore projectiles that are not entirely, or at least at their apex, covered with a mantle of hard metal, in April of last year, are almost certain to bring the subject under the consideration of the conference.

FURTHER EXPERIMENTS NECESSARY.

It is much to be wished that the fullest consideration of the question should be given to the matter in our own country before any final resolution on the subject be come to, and any surgical expression of opinion will have its weight. The researches of von Coler and Schjerning, which von Bruns considers conclusive as to the comparative effects of fully-mantled bullets, are not known in this country, at least the writer of this article does not know them. But he has experimented with all the bullets in question, and though he is not at present at liberty to publish his results, and some time must elapse ere they are so complete that he can do so, he may say that he is not disposed entirely to agree with von Bruns's statements; and the published experiments of the anonymous writer signing himself D***[6] may be now adduced as tending to cast doubt on the great difference which von Bruns has noted between the fully-mantled bullets and its partly-mantled modifications.

FRENCH EXPERIENCE AND EXPERIMENTS.

"D***" commences by saying that the destructive power of the new small arms having been called in question, he found it desirable to ascertain whether the small-bore rifle is in reality a weapon that possesses the alleged defects. He cites the alleged failure of the fully-mantled projectiles to arrest the onset of the enemy in the French war in Dahomey, in the English Chitral campaign, and the Italian contest with King Menelik in Abyssinia, in all of which it had been stated to occur, and adds to these that many newspapers and pamphlets had maintained that the same thing had been observed in the conquest of Madagascar by the French, but that from the fighting going on in Tonkin no such adverse reports had been received. He quotes the testimony of officers as to the destructive effects of the small mantled bullet, and recalls instances where, with older forms of projectiles, soldiers have continued to fight even after the receipt of several wounds, and points out that a battle field is not the place where the real efficiency of the bullets can be best ascertained. Then follow his experiments. He found that mantled bullets, fired against moist clay, caused fusiform or spherical tracks, smaller—4 to 7 cm. broad—where the bullet does not break up, and larger—10 to 18, or even 22 or 30—where it does. He found the bullets remained unbroken at the short ranges, 140 and 189 metres, the velocity being 2,500 and 2,000 metres per second respectively; while they were broken up at 316, 464, 541, 578, 646, 678, and 768 metres range, the bullet's velocities being respectively 860, 400, 260, 200, 160, 80, and 25 metre seconds.

Experiments on horses showed that at 50 metres range the orifices of exit were at least three times the size of those of entrance; that in traversing a muscle or viscus great damage was done, the muscle being rent into small pieces, and the viscera into flaps; and that on striking bones the ball produced chiefly radiating fractures. A horse's heart, struck by a ball, showed an opening 4 cm. large; the lung was reduced to pulp along a track 8 cm. broad; a stomach wound was 10 c.m. by 12 cm., and its contents had escaped into the abdomen. One bullet striking the horse's trochanter reduced it to a pulp; and another, which struck it in the face and passed below the brain, had rent the cranium so that brain substance was found in the pharynx. A ball fired against the cranium burst it open and pulverised the brain. A ball fired at 140 metres range, with 2,500 metre-seconds velocity, entering the shoulder above the olecranon made an aperture so small as to look like one made by the point of a cautery, and so small as not to allow the escape of any liquid, but led to a muscular track where the muscles were torn, broken up, and infiltrated with blood; it then passed through and tore the heart, and finally emerged behind the opposite shoulder by an exit larger than its entrance.

In fact the lesions detailed by "D***" read like those of von Bruns in his experiments on leaden-pointed and hollow-pointed bullets, or even worse, as where both liver and stomach were extensively rent, and the latter opened, by the passage of the ball in their vicinity, without directly piercing either the one or the other; and they show the necessity of our obtaining fuller information from different quarters, and of weighing it well before coming to a final decision on this important question.

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[6] *Les Armes de Petit Calibre et leur Puissance Meurtrière.* Par le Commandant D***. Paris: Baudoin. 1898.

THE PURPOSE OF THE MANTLE.

It ought not to be kept out of sight that it was no humane intention or design of lessening the injuries from modern bullets that led to the mantle being used to cover them. This was added merely to prevent their stripping in the grooves of the barrel from the force and velocity with which they were propelled through it. And as the mantle and core do not form one solid piece, but are separate and possess different energies, so that on striking an object they strive to become dissociated, the effect is that in bullets whose mantle completely covers them in front the lead is forced towards the apex, and will burst it if it be thin or break upon a hard body; while in a hollow-fronted bullet striking a liquid the front pressure often tends to force the lead in the opposite direction—namely, out at the rear of the mantle; and as, further, the mantle must in all bullets be incomplete at some part, before or behind, the disintegration of bullets must tend to occur in every such bullet with such initial velocity. An international agreement such as von Bruns suggests would not have the result of rendering the new bullets as humane as the older leaden ones whose velocity was comparatively low. It may be doubted indeed if it would settle the question in any way, for so long as the core and mantle are separate and the core is the heavier, a thinning of the mantle at the apex, while meeting the requirements von Bruns would impose, would yet, if carried sufficiently far, reduce the mantle's power of resisting internal pressure, and leave the bullets equivalent to those whose apex was not mantled at all. To render all European nations equal, an international agreement as to the thickness and tenacity of the mantle, especially at the apex, would have to be come to.

THE COMPLEXITY OF THE QUESTIONS TO BE SETTLED.

The questions concerning modern small-arm bullets are indeed of no simple nature, such as was that of explosive or non-explosive bullets in 1868. If we are to condemn the hollow-fronted and Dum-dum bullets in war, we ought logically to condemn all the modern mantled bullets of small calibre as well, and return to our former larger bores and black powder cartridges that gave a low initial velocity.

Owing to such considerations the subject is, in spite of von Bruns's researches, not yet, in the opinion of the writer, ripe for a decision, and further evidence must be awaited regarding it before it is so. And the demand that is made upon us must be made more precise. As it is at present formulated by von Bruns and homologated by the Society of German Surgeons, it stands that the bullets we use shall be declared inadmissible in any war. Does it follow that change of circumstances does not, in regard to bullets, alter the case? That what is unreasonable in contending with a civilised foe who gives quarter and cares for the lives of wounded, sick, and disabled men, is also unreasonable when dealing with those who, if successful, wage a war of annihilation, and despatch armed and unarmed, wounded, sick, men, women, and children alike, whether on the battle field or in cold blood, and whether they be overpowered in war or captured by stratagem or treachery?

These are some of the questions we ought to consider and be prepared to answer, since upon our reply to them may depend, for instance, whether it will be possible for our soldiers to avert an impending disaster that will entail their annihilation, or even, it may be, lead to English men and women falling human sacrifices to some African Ju-ju, in some African city of blood, by the use of small-arm projectiles more efficient than they would employ against a civilised nation, kindred, perhaps, to ourselves in blood.

THE UNITED STATES NAVY RIFLE, AND THE INJURIES IT PRODUCES.

An interesting paper on the navy rifle now in use in the United States appears in the January number of the Boston Medical Society's journal,[6] from the pen of Mr. Henry G. Beyer.

The navy of the United States has recently been furnished with a new small-bore rifle and projectile of special character, and Mr. Beyer's paper deals with the effects it is capable of producing. He says:

> The United States navy rifle, M. 1895, is known as the Lee straight pull rifle, and is a rapid-fire and repeating arm rather than a magazine gun. It may be used as a single loader if the magazine be not charged, but in general it will be used as a repeater, five cartridges in a clip being entered in the magazine, and the gun not reloaded until this charge is exhausted. In case loose ammunition is furnished, the magazine may be charged with single cartridges, any number from one to five being entered. The original bullet was made of hardened lead (95 per cent. lead and 5 per cent. antimony), with a jacket of a material known as cupro-nickled steel. It was steel-plated, with an alloy of copper and nickel. The weight of the bullet was 135 grains. In March, 1897, a change was made in the bullet, bringing the weight down to 112 grains, substituting a copper jacket, tinned, in place of the steel jacket covered with an alloy of copper and nickel, thus raising the velocity from 2,460 to 2,560 feet per second, thereby. however, also increasing its liability to deformity.

The diameter of the rifle is 6 mm.

Mr. Beyer tested the effects of the rifle against plates of lead, india rubber, chrome steel, and glass; against tin cans filled with air, water, marbles, or dry plaster of paris; and against canvas bags filled with oakum tightly packed, or with oakum compressed very tightly by means of a screw jack. The range was 5 feet from the muzzle in every case save the chrome steel plate 7 mm. thick, where it was 50 yards, but he varied the muzzle velocity of the projectile by alterations of the charge of the explosive, and paper screens were hung up before and behind the objects fired at. With the full velocity the lead perforations showed exits larger than entrances, and the bullet and mantle were broken up. With 1,500 foot-seconds velocity the exit was smaller than the entrance, the mantle and bullet were broken up; with 750 foot-seconds velocity the bullet and mantle were still broken up, though the force had failed to produce perforation of the lead. In every case the lead was 3 cm. thick. The empty tins and those filled with water showed the usual well-known results, the former being merely perforated, the latter burst by hydraulic action.

The cans filled with marbles showed the marbles driven in all directions, some even perforating towards the shooter, and the tins rent from the centrifugal dispersal of the marbles like the rents of hydraulic force.

The plaster of paris arrested the flattened bullet after penetrating for 14 cm., and the top of the tin was blown off, though the tin vessel was not bulged out of shape.

Mr. Beyer speakes of the impact on the chrome steel having melted particles of the bullet, but his conclusions on this point may be perhaps doubted. At least in similar experiments of my own, where the heat generated on impact had been so great as to vastly augment the plasticity of the lead, high powers of the microscope always showed the lead particles irregular, but not fused, and Mr. Beyer had merely judged from their impressions on screens and targets. The screens in front and behind showed that particles flew off with force in both directions from the impact. The bullets were rent and altered in shape on striking the cans filled with water.

A second series of experiments by Mr. Beyer on flesh and bone yielded interesting results. A shot of full velocity at 10 feet range pulverised the brain of an ox, broke up the cranium, and rent the bullet and its mantle into pieces. But a similar wound of a young calf with 1,484 foot-seconds velocity, at 5 feet range, made a smooth track through the imperfectly ossified bones and the brain, the bullet seeming to have retained its shape.

Wounds of inflated lungs, livers, and kidneys of pigs, cows, and bullocks, caused extensive wounds of the last two with full velocity, and smaller wounds or mere tracks with 1,000 foot-seconds velocity.

A full-velocity shot at a bullock's heart, 5 feet range, tore an extensive wound of 3½ by 2 cm., and an exit which is described as an irregular large-sized hole, exposing freely the inner cavities, carrying away part of the septum, and tearing part of the heart into shreds. A 1,163 foot-seconds velocity on a contracted calf's heart made a clean perforation of the organ.

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[6] Observations on the Effects Produced by the 6-mm. Rifle and Projectile. An Experimental Study. By Henry G. Beyer. *Journal of the Boston Society of Medical Sciences.* Boston (Mass.), January, 1899, p. 117.

The inflated lungs showed clean perforations with both full and 1,000 foot-seconds velocity, only in the former the entrance track and exit were respectively 15, 15, and 20 mm., while in the latter they were smaller than the bullet. Mr. Beyer says of these experiments on crania and viscera:

> The high degree of explosive effect produced by the highest-velocity bullets becomes less as the velocity decreases, and ceases altogether when the velocity has reached 1,000 feet per second. We may therefore conclude that the limit for the production of explosive effect on viscera by our bullet.........will probably be found to lie near a point corresponding to a distance of 1,000 yards from the muzzle of a gun fired with full charges of ammunition.

Mr. Beyer's further experiments on bones and joints gave similar results to the above. With full velocity and at near ranges the bullets produced injuries of much greater diameter than the bullet, the bones being broken into powder and small fragments, and the bullets disintegrated, even on passing through the thin plate of the ilium; and it was not till very low velocities—750 foot-seconds—were used that a clean perforation and undeformed bullet were obtained in wounds passing through this region, "even in flat bones in which clean perforative injuries with hard-jacketed bullets are the rule even with the highest velocities, with our bullet these are obtained only with the lowest velocities," are the words in which he sums up this section. And in concluding his paper, he says:

> From the accounts of the injuries on bones, we find that the injuries produced by the highest velocities are simply terrible, and those produced by the lowest far from benign..........It may be assumed, with a fair show of reason, that such injuries as will probably be produced in the human subject by our projectile will influence the methods of treatment both in the rear of the fighting line and in the hospitals afterwards, in that they will require the treatment laid down for "near shots" (*Nahschüsse*)—that is to say, they must from the very beginning be treated as infected injuries. Owing to the further fact that the projectile often goes to pieces, portions of its copper jacket and of its lead lining the track, we may reasonably expect that amputations will have to be done more frequently, and that the percentage of mortality will be higher, no matter how well equipped the hospital nor how skilful and experienced the surgeon.

I have contended that the whole question of modern bullet wounds is far more complex and less perfectly known than the advocates of an international agreement excluding the bullets used by the English troops in India and the Soudan would have us believe. Mr. Beyer's paper strongly points in the same direction. He shows a fully-mantled bullet acting on soft parts and viscera containing liquid in the very way which these writers contend is almost peculiar to our "Dum-dum" and "(Mark 4) c" bullets. A reduction of the strength of the mantle, if pushed far enough, will render the projectile even more liable to disintegrate, or explode as it has been called, than an opening or hollow in its apex. The truth is that the tendency to breaking up of the bullet, or to its producing hydraulic destruction in liquid or semiliquid structures, is inseparable from high velocities, and all bullets so propelled will produce what are called "explosive effects," though some of them are more ready to do so than others.

ALEX. OGSTON.

INDIAN METROPOLITAN HOSPITALS.

THE medical institutions of the Presidency towns of Calcutta, Madras, and Bombay are larger, better officered and equipped, and more specialised than the urban and rural hospitals and dispensaries scattered throughout the provinces. The more important of them are affiliated with medical colleges and schools for purposes of clinical instruction. They possess the advantages of the ministry of professors, teachers, students, and nurses, and work to the highest attainable standard. The patients and diseases treated are much the same in class and kind as in provincial hospitals. The slums of great cities supply, however, less favourable material than is drawn from country towns and villages, and the reputation established by some metropolitan hospitals attracts a larger proportion of more serious cases from a wider area, especially on the surgical side. The returns of operations, therefore, present a greater number of the more rare and important procedures demanding special skill, experience, and appliances. These institutions are the subject of separate reports in the three Presidencies. The following brief notes refer to the transactions of the year 1897:

Calcutta.—The report, submitted by Surgeon-Colonel T. H. Hendley, C.I.E., embraces 15 institutions situated in Calcutta and its suburbs—8 general hospitals, 1 for eye diseases, 2 for females, 1 police hospital, and 3 dispensaries. The year was an unhealthy one, on account of the scarcity and high price of food, and numbers of destitute sick and famished persons flocked into the city. The death-rate of Calcutta was 36.1 per 1,000, which is a very high figure and seldom equalled in the past. There was a decrease in deaths from cholera, and an increase in small-pox, fever, bowel complaints and "other causes." The number of indoor patients was 28,955, and of the outdoor 260,806, being an increase of 3,308 and 2,012 as compared with 1896. The death-rate among indoor patients was 16.4 per cent., the highest in eleven years. The proportion of men, women, and children treated were 64.28, 19.67, and 16.05. There was an increase in the number of cases of small-pox treated, and the death-rate was higher. Fewer cases of cholera were admitted, but the disease was more fatal. Both dysentery and diarrhœa gave larger admission figures and a higher case mortality, and though the number of cases of malarious fever treated were fewer, the proportion of deaths was greater. These facts disclose an insalubrious year and diminished vital resistance. Surgical operations were more numerous, and include 87 amputations with 13 deaths, 13 ovariotomies with 2 deaths, 60 laparotomies with 21 deaths, 79 operations for hernia with 17 deaths, 84 liver abscesses with 20 deaths, and a goodly array of other important cases. The cost of these institutions was Rs.763,447, of which Government contributed Rs.518,580. The invested capital amounts to Rs.592,700.

Madras.—The report, which is clear and concise, and much shorter than its predecessor, is submitted by Surgeon-General C. Sibthorpe, C.B., F.R.C.P.I. It includes 14 institutions—3 general hospitals, 3 for females only, 1 ophthalmic, 1 leper, 1 voluntary venereal, and 5 dispensaries. The year was a healthy one, the death-rate of the town being 35.5 per 1,000—under the average of previous years. There was a slight of excess of cholera and small-pox deaths, but a decline in fever, bowel complaints, and "other causes." The number of patients treated indoor was 18,908, and outdoor 198,809—an increase of 1,303 and 12,560 respectively. The death-rate among indoor patients was 6.05 per cent. of treated, a high figure which is not satisfactorily explained. The percentages of men, women, and children treated were 48, 34, and 18. The chief diseases were malarial fevers, worms, rheumatism, bowel complaints, venereal diseases, and affections of the skin, chest, ear and eye. There was a fall in the number of female venereal cases both in the special and general hospitals, which Surgeon-General Sibthorpe is unable to explain. There was an increase in the number of surgical operations, which include 50 amputations with 6 deaths, 81 hernia operations with 6 deaths, 17 ovariotomies with 2 deaths, 42 laparotomies with 14 deaths, and 21 openings of liver abscess with 11 deaths. The long list of operations done in the Government Maternity Hospital is specially noteworthy. The expenditure of all the hospitals amounted to Rs.421,226, of which Government contributed Rs.320,509; invested capital Rs.119,510. A case of plague, imported in the person of a native groom who came from Bombay to attend the Guindy races, was treated in the General Hospital. The case died and was examined *post mortem*. The resident medical officer and a *toty* who assisted him contracted the disease. The latter died. Precautions were adopted, and no further cases occurred.

Bombay.—Surgeon-Major-General G. Bainbridge, M.D., who submits the report, did not take charge till towards the close of the year, and being subsequently occupied with plague duties was unable to obtain personal knowledge of the 11 hospitals included in it. The report is therefore mainly arithmetical, and the local government does not comment on it. Of the 11 institutions 3 are general, 2 for females, 1 ophthalmic, 1 leper, 1 police, 1 school, and 2 dispensaries. The number of patients treated indoor was 15,178, and outdoor 56,564, a decline of 1,055 and 28,584 on 1896. The death-rate among indoor patients was 13.7 per cent. against 10.6 in the previous year. No explanation is given of these unfavourable results. The proportion per cent. of men, women, and children were 57, 25, and 18. The cases of cholera and small-pox treated were few, and there was a marked reduction in the number of cases of venereal diseases treated. In other respects the returns of diseases present no peculiarity. There was a striking reduction in the number of surgical operations performed, but this is explained by the elimination of trivial cases. The list, however, includes a large amount of important and successful work, including 57 amputations with 12 deaths, 28 hernia operations with 10 deaths, 2 ovariotomies with 1 death, 20 laparotomies with 11 deaths, 74 liver abscesses with 41 deaths. The total expenditure of these hospitals amounted to Rs.411,983, of which Government contributed Rs.282,067; invested capital is represented by Rs. 21,500, held by the Jehangir Nasarvanji Wadia Dispensary.

VACCINATION CERTIFICATES IN SOUTH UIST.

AT the Inverness Sheriff Court on March 15th Mr. John Lamont, Licentiate of the Royal Colleges of Physicians and Surgeons, Edinburgh, and the Faculty of Physicians and Surgeons, Glasgow, was charged before the Sheriff and a jury with having during 1897 and 1898, in the island of South Uist fabricated 16 vaccination certificates by setting forth that he had successfully vaccinated 16 children in the parish, while the fact was that he had not done so. At the end of a trial lasting eight hours the jury retired, and after the lapse of three minutes returned a verdict of "Not Guilty," which was received in court with loud and prolonged cheering. In this respect the decision must be thoroughly satisfactory to Mr. Lamont, but the proceedings themselves suggest comment in two directions.

In the first place, as regards vaccination certificates, it seems that in some sparsely populated Highland districts, what with long journeys and bad weather and insufficiency of medical men, some looseness of practice has developed. Instead of the vaccinator paying a second visit to his cases after the usual interval he may occasionally certify the success of the operation at second hand, and as a result of information obtained from the parents, or the registrar, or the schoolmaster. No doubt in the circumstances it may sometimes be most inconvenient to make a second visit, especially at a time fixed on a week previously; and even when the appointment can be kept it may be found that some of the vaccinated children have not been brought to the house of call. Notwithstanding these difficulties, we are bound to say that such a method of granting certificates does not commend itself to us. Nothing else or less than a visit by a medical man should be looked on as a sufficient ground for certifying successful vaccination. It would be far better to delay a certificate even for a twelvemonth than to assume on hearsay evidence that the operation had been successfully performed. But it appears that Mr. Lamont was never supplied with a copy of the Vaccination Rules issued many years ago by the now defunct Board of Supervision, and it was stated in court that these regulations, which every parochial medical officer should receive, have been out of print for seven years. If Mr. Lamont was lax, the laxness does not appear to have been confined to him.

Having made our position quite clear on this point, we turn to a consideration of the manner in which Mr. Lamont was treated in the course of the proceedings taken against him. He went to the island of South Uist on appointment by the parish council in August, 1897. The island is 35 miles long by 10 miles broad, and contains a population of about 6,000. It seems that another medical man had been appointed for part of it, but after seeing the place he went away again, so that Mr. Lamont was asked to undertake temporarily all the work. In ordinary circumstances that would have been difficult enough, but at the time in question it was specially difficult as an epidemic of typhus fever was raging. In the Long Island his services during the epidemic were little short of heroic. So great was the fear of the disease that no one would go near the house in which a pauper woman had died, and Mr. Lamont had himself to prepare the body for interment. From the Local Government Board he received a testimonial which in the course of the trial was well described as equivalent to a Victoria Cross. In the Board's letter the Secretary wrote: "In connection with this most distressing case, as the result of careful deliberation I am instructed by the Board to convey to you their high appreciation of the conscientious and self-sacrificing manner in which you discharged your difficult duties at a time when, owing to the state of the parish—a most extensive one—your labours had to be undertaken practically both by day and night..........In the opinion of the Board your action is deserving of the highest commendation."

It was under such circumstances that Mr. Lamont got into the vaccination difficulties which resulted in the recent criminal prosecution. While, however, the Local Government Board praised his action, it seems that, to put it mildly, they did not find it their duty to extend their commendation to the parish council. Mr. Lamont had ordered a school to be closed. The parish council, it seems, took offence at this, but the Local Government Board supported his action, and the school was accordingly closed. Immediately after that a motion was made for his removal from office, and this was carried. He ceased duty in July, 1898. Then in connection with the vaccination certificates the local public prosecutor, or, as he is called in Scotland, the procurator-fiscal, applied for a warrant to search for and apprehend Mr. Lamont upon the ground that he had absconded. According to the report of Mr. Lamont's evidence in the *Inverness Courier* of March 17th, the warrant was granted by Dr. M. T. Mackenzie, who is an honorary sheriff substitute, and who, it appears in the report, was one of the witnesses for the prosecution. The warrant was sent to Glasgow, where Mr. Lamont was arrested on Saturday night and put into a cell until Monday, when he was sent to Lochmaddy. He afterwards went to London, and had at his own expense to go back to Lochmaddy again. He had to go to Inverness from Glasgow on two occasions, and had to pay his own expenses.

The acquittal, however, brings with it no solatium nor recompense for all the time and trouble and anxiety of the case, nor does it even involve payment of travelling expenses.

While we have nothing but reprobation for any laxity in the granting of vaccination certificates, it is impossible to avoid a feeling of strong indignation with regard to the extraordinary proceedings to which Mr. Lamont has been subjected.

We are sure that Mr. Lamont will have the hearty sympathy of his profession in the undeserved severity of procedure of which he has been the subject.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of the Association, at No. 429, Strand (corner of Agar Street), London, on Wednesday, the 12th day of April next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

429, Strand, March 9th, 1899.

NOTICE OF QUARTERLY MEETINGS OF COUNCIL FOR 1899.

MEETINGS of the Council will be held on April 12th, July 12th, and October 11th, 1899. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting—namely, June 22nd and September 21st, 1899.

ELECTION OF MEMBERS.

Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No members can be elected by a Branch Council unless their names have been inserted in the circular summoning the meeting at which they seek election.

FRANCIS FOWKE, *General Secretary.*

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

MEMBERS are reminded that the Library and Writing Rooms of the Association are now fitted up for the accommodation of the Members in commodious apartments, at the offices of the Association, 429, Strand. The rooms are open from 10 A.M. to 5 P.M. Members can have their letters addressed to them at the Office.

BRANCH MEETINGS TO BE HELD.

SOUTH-WESTERN BRANCH.—The next intermediate meeting of the Branch will be held at the Public Rooms, St. Austell, on Saturday, April 15th, 1899, at 4 P.M. Notices of papers to be read, of cases, specimens, etc., for exhibition to be sent as soon as possible to the Honorary Secretary that an agenda paper may be issued. The Branch Council will meet at 3.45 P.M. Tea and coffee will be served before the meeting. The Honorary Secretary will be glad to receive at once the names of any candidates for election to the Branch.—H. W. WEBBER, M.S., 4, Woodland Terrace, Plymouth, Honorary Secretary.

WEST SOMERSET BRANCH.—The spring meeting of this Branch will be held at the Railway Hotel, Taunton, on Friday, April 7th, at 5 o'clock. Agenda: Communications from the General Council and from the Worcestershire and Herefordshire Branch on the vaccination question. Discussion on Constipation, introduced by the President, Mr. Routh. Notice of papers or communications should be sent to the Honorary Secretary early. There will be a dinner at 6.30 at the Railway Hotel, price. 5s., exclusive of wine. Members intending to dine are requested to communicate with the Secretary on or before April 3rd.—R. LIDDON MEADE-KING, Honorary Secretary.

EDINBURGH (FIFE AND LOTHIANS), PERTHSHIRE, AND DUNDEE AND DISTRICT BRANCHES.

A COMBINED meeting of these Branches was held in the Royal Infirmary, Edinburgh, on March 17th, Dr. ROBIE, Dundee, in the chair. There was a large attendance.

Demonstrations.—From 3 o'clock onwards Microscopical and Bacteriological Demonstrations were given in the surgical waiting-room by Dr. ANDREW DAVIDSON on Malarial Organisms, and by Dr. G. L. Gulland on a Series of Blood Films—normal blood, blood in chlorosis, in pernicious anæmia, in secondary anæmia from sepsis, in splenic leucocythæmia, in spleno-medullary leucocythæmia, and in lymphatic leucocythæmia.

Pathological Preparations, Casts, etc.—The following were shown:—Mr. Caird: (1) Malignant Stricture of Bowel, Omental Hernia, etc., preparations and drawings; (2) Roentgen Ray Photographs of Fractures; (3) Needle Case for Sterilising Needles and Sutures.—Mr. Cathcart: (1) Brain showing Multiple Embolic Abscesses; (2) Tumour of the Cerebellum; (3) Small Intestine becoming Gangrenous from detachment of the Mesentery, injury; (4) Small Intestine eight months after excision of gangrenous portion, and immediate resuture; (5) Chronic Intussusception, successfully excised through the colon; (6) Tubal Pregnancy, successfully removed after rupture; (7) Arm after amputation, showing destruction of ulnar and part of radial arteries, by progressive necrosis without hæmorrhage.—Mr. Cotterill: Various Pathological Specimens.—Dr. R. A. Fleming: Various Pathological Preparations.—Dr. G. A. Gibson: (1) Specimens of Cerebellar Tumours; (2) skiagraphs, pictures, and casts of Acromegaly.—Dr. Haultain: Deciduoma Malignum of Uterus.—Mr. H. H. Littlejohn: (1) Hydatid Abscess of Liver; (2) Hypertrophied Heart; (3) Rupture of Heart.—Mr. Miles: Specimens illustrating (1) Abdominal Surgery; (2) Sarcoma in Bone; (3) Intracranial Hæmorrhage; (4) Hydrocele; specimens of (5) Dislocated Elbow-joint; (6) Cystic Goître; (7) Colloid Cancer of Rectum occurring in a boy of 12; (8) Dissection of Flat Foot.—Drs. H. A. Peddie and Dawson Turner: Roentgen Ray Photographs of an interesting Fracture of Tibia in various stages of repair.—Dr. R. W. Philip: Collection of Bronchial Casts expectorated by patient suffering from Fibrinous Bronchitis.—Dr. Aitchison Robertson: Large Tonsillar Calculus.—Dr. T. Shennan: (1) Aneurysm eroding Vertebræ in a man aged 30; (2) Hæmorrhagic Nephritis with infarcts; (3) Specimen mounted by Jores's Method.—Dr. Smart: (1) Two Cystic Kidneys, in sections, from same individual; (2) Cardiac and Pyloric Ends and Lesser Curvature of Stomach contracted as result of extensive ulceration caused by the ingestion, by mistake, of spirit of salt.—Mr. Harold J. Stiles: (1) Viscera from case of Lymphosarcoma of Abdomen; (2) Thoracic Viscera from a child who suffered from severe dyspnœa, with expiratory stridor; (3) Bones from an infant with multiple fractures, with Skiagraph by Dr. Rainy; (4) Tuberculous Hernial Sac from a child suffering from abdominal tuberculosis; (5) Dissection of Leg, showing distribution of paralysis, the result of acute anterior poliomyelitis; (6) Acquired Hydrocephalus—symptoms resembled those of cerebellar tumour; (7) Section of Head showing "Adenoids"; (8) Dissection of Head showing surface Anatomy of Brain; (9) Horizontal Sections of a Formalin-hardened and Frozen Head; (10) Temporal Bones of Child, showing surgical anatomy of Mastoid, Antrum, and Middle Ear; (11) Stomachs of Children (normal and dilated) and other Abdominal Organs hardened with formalin.—Mr. Harold Stiles and Dr. Andrew H. Watt (House-Surgeon): Stereoscopic Photographs of Children—Clinical and Anatomical.—Mr. Harold J. Stiles and Dr. Harry Rainy: Skiagraphs of Tuberculous and Syphilitic Bone Lesions.—Mr. D. Wallace: (1) Tumour from Prostate; (2) Cerebellar Concretion; (3) Tumour of Pituitary Body.

Instruments, etc.—From 3 P.M. onwards, also in the Surgical Waiting Room, there were on view: By Mr. Frazer: (*a*) Recent Bacteriological Apparatus; (*b*) Bacteriological Specimens; (*c*) New Pattern of Microtome; (*d*) Clinical Research Cabinet; (*e*) Apparatus for Urinary Examination.—Messrs. Gardiner and Sons: Various Instruments.—Messrs. Burroughs and Wellcome: Recent Drugs.—Messrs. Johnson, Matthey, and Co.: Barium Platinocyanide Screens.—Trommer Extract of Malt Company: Various Preparations.—At 3.30 P.M. Dr. James Foulis gave a demonstration of Milk Steriliser, and made remarks on the process of sterilisation.

Clinical Congress.—At 3.45 in the large Surgical Theatre a Clinical Congress, under the presidency of Dr. Rorie (Dundee), was held, when Dr. H. S. Calder showed a case of Scleroderma in both feet.—Dr. Affleck: (1) A case of Lymphatic Leucocythæmia showing all the classical signs; (2) a Case of Addison's Disease in a young man, which was being treated by suprarenal extract in tabloid form.—Mr. Caird: (1) Patient after removal of Goître for Exophthalmos; (2) a young woman whose Œsophagus had been destroyed by a caustic alkali six years age, and who was now entirely fed by a valvular opening into the stomach; she masticated her food and then ejected it unto a tube which led down to the opening in the abdominal wall.—Dr. Byrom Bramwell: (1) A Case of Addison's Disease greatly improved by suprarenal extract, iron, and arsenic; (2) a Case of Lupus in a patient affected by Ichthyosis treated by thyroid extract, with great improvement in ten weeks; (3) a peculiar Case of Myelitis, with no affection of bladder or rectum; no suggestion of a history of syphilis, yet with improvement on the exhibition of antisyphilitic remedies.—Mr. Cotterill showed a patient with congenital deformity of the lower lip, with an extraordinary history of labrial deformities.—Dr. James Carmichael showed (1) a Case of acquired Hemiplegia with Athetosis in a child. The child had had diarrhœa, measles followed shortly after, and a little latter a fit was the index of the cerebral change; (2) a Case of Aphasia in a child.—Dr. George Berry showed a series of cases illustrating the treatment of Cataract, and urged that one should not wait for the ripeness of the cataract, but perform an iridectomy and then proceed.—Dr. George Gibson showed a case of Acromegaly which had lasted for 16 years in a woman who was now 42 years of age. There was enlargement of the thyroid, the joints were enlarged, but there was no hypertrophy of the heart.—Dr. MacKenzie Johnston showed (1) a boy with Pachydermia Laryngis, whom he had shown at the same joint meeting two years ago; (2) a patient with Aural Exostosis in a young woman.—Mr. J. B. Hodsdon showed a young man after Excision of the Astragalus.—Dr. Alexander James showed: (1) a case of Scleroderma in a young man; (2) a case of Friedreich's Ataxia in a man of 25 years of age.—Dr. W. Allan Jamieson showed: (1) a Drawing of a case of Angio-keratoma; (2) a case of Scleroma Herpetiforme in a woman; (3) a case of Pityriasis Rosea.—Dr. H. G. Langwill showed a case of Locomotor Ataxy with Charcot's Disease in a man of 57, who five years ago had had an accident at sea.—Dr. McBride showed a series of cases of Ozæna treated by cupric electrolysis.—Dr. George Mackay showed: (1) Cases of Extraction of the Lens for High Degree of Myopia; (2) case after Mules's Operation.—Mr. Shaw Maclaren showed: (1) Patient after operation for Ruptured Gastric Ulcer; (2) patient after operation for Tuberculous Teno-synovitis; (3) patient after operation for Dislocated Patella.—Mr. Miles showed: (1) Patient after operation for Perforated Duodenal Ulcer; (2) patient after operation for Perforated Gastric Ulcers; (3) patient after operation for Multiple Traumatic Perforations of Small Intestine; (4) patient after operation for (*a*) Tuberculous Peritonitis with Obstruction, and (*b*) Tuberculous Pleurisy; (5) patient after Pistol Shot of Stomach.—Dr. Smart showed: (1) Myxœdema successfully treated by Iodothyrine; (2) two cases showing Elimination of Diabetic Sugar as controlled by dietetic treatment alone; (3) Pigmentation in a case of pseudo-Addison's disease.—Mr. Alexis Thomson showed: (1) Man of 70, after Resection of Gangrenous Bowel in Strangulated Hernia; (2) case of Transplantation of Peroneus Longus Tendon into Tendo Achillis, after removal of calf muscles for Sarcoma.—Dr. Norman Walker showed three cases of Tertiary Syphilis.—Mr. Stiles showed: (1) Child, aged 7 years, with large Hydrencephalocele (2) Congenital Dislocations of Hip.—Dr. J. Thomson: Infant with Pseudo-Sclerema.

Electrical Apparatus.—From 5.30 P.M. and onwards, in the Electrical Department, Dr. Milne Murray gave a Demonstration of New Electrical Apparatus. He was assisted by Dr. Dawson Turner. Six commodious rooms are devoted to the department, being allocated as follows: (1) Central Room, for the treatment and investigation of special cases, and for the demonstration of methods; (2) A Calibrating Room, for the testing and adjustment of the various measuring and other instruments; (3) Roentgen Ray Room; (4) Dynamo and Accumulator Room, in which the secondary cells for the induction coil and those used throughout the infirmary for cautery purposes are charged; this is effected by a specially-designed motor transformer; (5) Dark Room, for development of photographic plates. (6) Static Room, equipped with a powerful Wimshurst machine, and adapted for the application of static electricity. The various appliances and the means adopted for adjusting the 230 volts current from the main for medical purposes were explained by Dr. Milne Murray, and Dr. Dawson Turner gave a demonstration of x-ray screen work, and also showed his newly-devised apparatus for locating the position of foreign bodies by means of x-ray photography.

Sanatoria for Consumptives.—At 5.45 P.M., in the Medical Waiting Room, Dr. CAVERHILL gave an exhibition of consumptive sanatoria, with limelight illustrations.

Surgical Demonstrations.—At 5.30 P.M. and onwards, Mr. C.W. CATHCART, in the Theatre of Ward 5, gave a demonstration of Ambulant Treatment of Fractures of the Leg, and other recent surgical procedure.

Dinner.—At 6.30 P.M. there was a dinner in the Royal Hotel, at which some seventy members of the Congress were present. The Chairman was Sir JOHN BATTY TUKE, and the Croupiers Dr. CONNEL (Peebles) and Dr. JAMES CARMICHAEL (Edinburgh). Toasts: "The Queen and the Royal Family," by the CHAIRMAN; "The Navy and Army," by the CHAIRMAN, and replied to by Major BLACK for the Army and Dr. SPENCE (Burntisland) for the Navy; "The British Medical Association" was given by the CHAIRMAN, and replied to by Dr. BEATTIE (Pitlochry), President of the Perthshire Branch, and by Dr. STALKER (Dundee), President of the Dundee Branch; "The Guests" was given by Dr. JAMES RITCHIE, and replied to by Dr. BUIST (Dundee); "The Chairman" was given by Dr. RORIE (Dundee); and "The Croupiers" by Dr. SINCLAIR (Dundee). With excellent speeches, stories, and songs a pleasant evening was spent.

CORRESPONDENCE.

THE TEACHING OF PHYSIOLOGY AND HISTOLOGY.

SIR,—The lectures and exercises exhibited in the physiological department of most of our medical faculties and schools consist in considerable measure of purely anatomical subject matter. In the partition of property between "anatomist" and "physiologist" that took place with the separate establishment of physiology, the microscope fell to the almost exclusive charge of the physiologist, whose practical duties gradually came to consist, on the one hand, of microscopic anatomy and embryology, on the other hand, of physiology proper and chemical physiology.

The function of a university professor of physiology cannot properly, in my opinion, consist exclusively in elementary teaching over the whole of this wide field. His teaching is a living influence chiefly in so far as it includes the ingredient of his own recent study and thought. And the routine review of the best marshalled facts has a very slight educational scope if it has to be made so exhaustively as to exclude the possibility of original study by the professor and by his younger fellow workers.

The Scottish universities in the past have shown the way to other universities of the United Kingdom. At the present juncture, the University of Edinburgh possesses an opportunity of again showing the way in a right direction—a direction that has been already taken by practically all Continental and American universities—by recognising the natural subdivisions that exist in this unwieldy mass. The lecture programme in the department, entitled Physiology, is altogether in excess of the best powers of any single man, and can be fulfilled only by a routine application of his less excellent qualities of mind. The laboratory programme—even under the present liberal system of devolution upon university assistants—hardly supplies the slight tincture of "practical physiology" (histology, chemical physiology, physical physiology) necessary to the entire mass of medical students, and altogether ignores the very extensive requirements of the small minority of students who possess the desire to advance knowledge. The professor is, in short, overburdened by lectures, and insufficiently provided with laboratories. Fewer lectures by the professor, and more laboratory accommodation adapted to research are the obvious corrections of these two great defects; the latter has indeed already been partially realised in the laboratory of the Royal College of Physicians of Edinburgh, but will be fully met only when the University and the College have in their service an Institute of Physiology and an Institute of Pathology. The former defect and its correction imply a larger share of lectures by University assistants with a correspondingly larger share of responsibility and of emoluments, or the establishment of a Chair of Histology distinct from the Chair of Physiology.

The cleavage that has everywhere taken place between anatomy and physiology has proceeded further in Continental universities than with us. Microscopic anatomy has gone to the anatomist, or has belonged to a separate professor, while the microscope has continued to be one of the many instruments used for his special ends by the physiologist and by the pathologist and by the clinical student. And the effective sphere both of physiology and of histology has been broadened by their formal separation.

Under the combined system, where microscopic anatomy has been treated as the special property of the Professor of Physiology, either the anatomical or the physiological interest is liable to unduly predominate in a department according as the bias of the director is in one direction or the other, or else the average of both sides falls somewhere below its proper optimum, where the attention of the professor is fairly distributed over the elements of both fields. The custom formerly prevalent in many schools of presenting a course of pure morphological histology under the misleading title of practical physiology was an extreme expression of this undue predominance in one direction. My own case during the earlier years of my teaching, when I gradually became more and more engrossed by the manifold problems of physiology proper, has been to my knowledge an instance in the opposite direction, and finally led me to ask for the establishment of a separate Lectureship on Histology at the medical school to which I am attached.

The natural lines and ramifications of physiology as regards the medical faculty are most properly expressed by its Scottish title "The Institutes of Medicine." Physiology is the *ratio rerum*, and deals with all rational principle pertaining to any and every department of medicine, whether such department be called pathology or pharmacology or psychology or obstetrics. For the attention of a Professor of Physiology to be by prescription very largely engrossed by histology is a diversion of energy from its more proper lines of action. The adequate treatment of physiology and histology requires one man with two different minds, or two men each with a mind of his own.

It may be said that this is a separatist argument, applying equally aptly to (say) physiological chemistry or to any other specific portion of physiology. I cannot admit this as a valid objection. The great extensions of the practical and experimental foundations of physiological doctrine that have taken place during the last fifty years have resulted in a conglomerate "physiology" in which the dominant didactics are morphological rather than functional. The natural ramifications of physiological logic are crossed, twisted, and arrested by the natural faults and fissures inherent to such a conglomerate. All its constituent interests suffer, most of all that rare and indefinite interest which should be their vivifying ingredient, as it is the vivifying ingredient of all the arts of medicine and surgery.

The first step in a right direction is the subdivision of the professorship into those of physiology and histology. The second step will be the separate establishment of the professorship of chemical physiology. Opportunity to take the first step has arisen at the University of Edinburgh. A similar and even clearer opportunity may shortly arise in a real University of London; and some of us wanderers in that great academic wilderness hope that Edinburgh may help to show the right way.

March 21st. AUGUSTUS D. WALLER.

ARMY CONVALESCENT HOMES.

SIR,—In the BRITISH MEDICAL JOURNAL of March 18th Surgeon-General Stewart has struck the keynote I wished to sound in my letters of January 21st and February 11th, which appear to have been misunderstood.

In the *Army Medical Report* for 1897 just published there is a description of the treatment of syphilitic affections as carried out at Aix-la-Chapelle, where officers are advised to go, but no reference is made to the soldier. The consensus of opinion in Europe is, I think, agreed about the treatment of the disease under consideration; the difficulty is chiefly the detail connected therewith.

In my various communications I have pointed out that distant journeyings are unnecessary, and that the treatment can be carried out anywhere with success, even during a winter in Scotland at an elevation of 800 feet above sea level.[1] These matters were brought to the notice of the then Director-General of the Army Medical Department, from whom I received a letter of thanks, but action in the matter was not then possible.

Recent experience has shown how advisable it would be for the military authorities to have a location where this treatment could be carried out successfully; and, as I before suggested, if a convalescent home could be established at one of the thermal springs in England it would prove a national benefit. I believe the springs at Bath are not available for the purpose, but as there are other similar springs in the district extending over a considerable area, it might be found possible to establish a suitable convalescent home for infected soldiers returning from foreign service. The artificial heating of the Harrogate waters might also serve as an excellent model should thermal springs not be available.—I am, etc.,

Wm. Alexander,
Portobello, N.B., March 21st. Lieutenant-Colonel, A.M.S.

MEDICAL AID ASSOCIATIONS.

Sir,—Will you allow me space to make a few remarks in answer to the very pregnant letters of "A. B. C." and "Medical Aid Surgeon?" My idea is that every form of club in which canvassing, collecting, or touting takes place should be included in the term "Medical Aid Association." To my mind, the private family club run by medical men is, from a professional point of view, more objectionable than the trading companies.

It will be within the recollection of your readers that some seven years since the question of medical aid associations was inquired into by a Committee of the General Medical Council. It will also be remembered that Dr. Leslie Phillips wrote many able articles relating to the same subject, and that it was mainly due to his persistent efforts that the General Medical Council were induced to make an official inquiry. I would, however, like to point out that the principal part of the inquiries of Dr. Phillips and the investigations of the Council referred more particularly to these medical aid associations which are under the control and management of friendly societies. Now, however objectionable these particular medical aid associations are to the profession at large, yet I venture to assert that they are not nearly so lowering to the dignity of the profession as these medical aid associations which are controlled by purely commercial companies, and which are, as a general rule, conducted in connection with industrial life insurance. From what I have gathered I understand that the main objection to the former was the "sweating" of the medical officers in order that the friendly societies might reap a profit. Unless I am labouring under a mistake, it was not contended that these combinations of friendly societies employed canvassers or "touts" to make a house-to-house visitation. To bring this subject in a practical way before the governing body of the profession I would make the following suggestions:

1. That all practitioners who have knowledge of the evils connected either with medical aid associations or family clubs should draw up a statement and forward it to Dr. Glover.
2. That members of the British Medical Association should take opportunities of bringing the subject before the Branches.
3. That members should ask the Council of the British Medical Association to make a declaration that members of the profession who hold such appointments as indicated should not be considered eligible for membership of the Association.
4. That consulting surgeons and physicians should be requested to agree not to meet "medical aid" men in consultation.—I am, etc.,

March 18th. A Member, B.M.A.

A CENTRAL FUND FOR THE SUPERANNUATION OF POOR-LAW OFFICERS.

Sir,—There can, I think, be little doubt that in urging the authorities to establish a Central Superannuation Fund unanimity among those concerned would carry weight. The Poor-law Medical Officers' Association have passed a favourable resolution, as have also the Wycombe and Newton Abbot Boards of Guardians, a committee of the latter recommending the Board to petition the Local Government Board on the subject, pointing out that under the present Act, the working was unfair both to the guardians and the officials and that a copy of the petition should be sent to every Board of Guardians in the kingdom. There are probably many Boards who already hold the same opinions on the subject, but among the officials of the Poor-law Officers' Association there appears to be an idea that if a central fund were established "the security of the rates" would be lost, and that a considerable addition would be made to the percentage deduction from salaries.

I have also heard it stated, that when the present Superannuation Act was under consideration the establishment of a central fund was mooted, but that an objection was raised on the ground of the probable expense of working it. It is reasonable to suppose that the objectionable features of the present working of the Act were not foreseen, and that the fact of their existence is sufficient to make a reconsideration of the subject indispensable.

In order to relieve the Local Government Board, a Committee of Management might be appointed on which Boards of Guardians, Poor-law officers, and the Government might be represented; the subscriptions might also be collected by the county councils, and possibly after a time the county councils might take the whole management of such portion of the fund as their respective counties were interested in. Should the amount of the subscriptions prove excessive and lead to an undue accumulation of the fund, it should be in the power of the Committee to remit the subscriptions for a time or reduce them permanently.

One of the conditions of the Act, as far as medical officers are concerned, is impossible, as they cannot put in forty years' service by the time they are 60 years of age. Possibly the funds might allow every official who so wished to retire at 60 years of age after thirty years of service; this is one of the points that a Committee of Management might take into consideration after a time, and advise the Local Government Board respecting it.

I would point out that the suggestion on page 544 of the British Medical Journal of March 4th, to the effect that "an extension of this to officers or servants" who have served in different unions "would seem to suggest a means of overcoming the difficulty," would exclude officers who served their whole time in one union.

I enclose a letter from an official in which some of the foregoing points are touched upon.—I am, etc.,

March 5th. W. L.

Parish Offices,
Edmund Street, Birmingham,
Dear Sir, February 11th, 1899.

I am duly in receipt of your favour of February 7th. Adverting thereto, would you not rather have your notice of motion on the agenda of the National Association meeting, to be held at Birmingham in May next, or would you rather it come before our local Association again first? There are one or two what I consider defects in your proposals. First, the Local Government Board in any amendment of the Act would take good care that the deductions were amplified to such an extent that there would be no possible chance of a deficit; if the latter were to be the case under a Central Fund, how could it be apportioned amongst the various unions throughout the country, and who would be saddled with the expense of same? Then, again, in case of excessive accumulations, would it not be preferable to reduce the contributions rather than they should cease altogether? The former commends itself to my judgment. With regard to Poor-law officers being represented in the management, I fear this would further add to the expenses, but in case of a Central Fund this might be desirable. However, it appears to me that many of the difficulties would be overcome by vesting full power with each county council to collect, manage, and disburse the funds contributed in its own area, by which method any deficit could be easily apportioned amongst the unions comprised in the county. It is a complex question, and not much minimised by considering details, but one which should receive much thought and attention from those who have the time and capacity to bestow upon it. There is little doubt the subject will have to be dealt with ultimately, and we can do little harm in preparing our data to work upon..............

Believe me, yours faithfully,

W. R. White,
Hon. Sec. Birmingham and District Poor-law Officers' Association.

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[1] British Medical Journal, February 11th, 1893.

DOCTORS AND DISTRICT NURSES.

Sir,—In reference to your remarks on this subject, I beg to say that I also know of a district where the Committee have allowed their nurse to become to all intents and purposes an unqualified medical practitioner. Finding, however, that the local medical men have been obliged to ignore the nurse, seeing that they themselves were ignored, the Committee have decided to amend the rules so that the nurse should work with, and not in the place of, the doctor. The following are some of the points which I felt it my duty to put before them:

1. There is a vast difference between ignorant people employing a midwife and an educated Committee allowing their nurse to attend confinements without a doctor, both from the doctor's and from the coroner's point of view.
2. If the nurse is to attend ordinary or maternity cases without a doctor, the provision made for the poor in medical matters is interfered with, and the whole essence of club practice is destroyed.
3. The Committee that allows this sort of thing is misleading the people, and, in addition to creating discontent, is doing away with that condition of thrift which it is the wish of the State should be fostered by every possible means.
4. It is not fair for a Committee to go round and persuade people to have the nurse, and then, if anything goes wrong, to expect a medical man to step in and get them out of a difficulty by taking over all responsibility.
5. A Committee which sanctions the employment of a district nurse in the place of a doctor is undermining that moral responsibility of parents towards their children and themselves which it is the aim of friendly societies to encourge, and which is so essential to the welfare of society at large.

March 8th. **Country Practitioner.**

POISONING BY RHUS TOXICODENDRON.

Sir,—In connection with the cases of rhus poisoning recently recorded in the British Medical Journal, perhaps you will allow me to refer those interested to the following more or less convenient sources of information:

J. C. White's *Dermatitis Venenata*, 1887 (the American journals frequently contain reports on cases); Morrow's *Drug Eruptions* (Syd. Soc. Ed.); Albert Billet on Dermatitis from Varnish Sumach in Annamite Soldiers (extracted *Brit. Journ. Dermat.*, November 18th, 1896, p. 456); McCartney (The *China Medical Missionary Journal*, vol. viii, No. 2, June 1894); also Mathews in the September number; Nicholson of Kew Royal Gardens has known several cases. Schonberg (*Philad. Polyclinic*, October 16th, 1897) says there is no specific, but certain remedies relieve the itching and burning, and subdue the inflammation. He places such remedies in the following order: (1) Saturated solution of boric acid; (2) fluid extract of grindelia robusta (ʒj to aq. ℥iv); (3) aqueous solution of sodium hyposulphite (ʒj to ℥j); (4) Labarraque's solution (25 to 50 per cent.); (5) black wash diluted a-half with lime water; (6) bromine, ♏x-xv to ℥j ol. olivarum.—I am, etc.,

March 17th. **Physician.**

HOSPITALS AND CERTIFICATES UNDER THE WORKMEN'S COMPENSATION ACT.

Sir,—In the British Medical Journal of March 18th, under the above heading, you have an editorial on this subject, and you say that it is to be regretted that the Birkenhead Medical Society have passed a resolution calling upon the Hospital Committees to allow the house-surgeons to charge for such certificates, and that the fee should be not less than a guinea; you suggest that perhaps local conditions may offer some explanation for this resolution. As the proposer of the resolution I have to say that no local conditions are required to explain the action of the Society. The point which you seem to have missed is this: The majority of the claimants under the Act naturally enough pass right from the accident into the hospitals, and it is the house-surgeon, and house-surgeon only, who can give the certificate and information required.

Now, the insurance people and the employers have in some cases argued that the "paid servants" of the hospitals ought to give this information for nothing, and others have tried to squeeze down the fee to 2s. 6d.

It is surely plain that if the house-surgeons refuse to give the information unless paid a guinea there is no fear of the insurance people going to the house-surgeon over the head of the private practitioner in such cases as drift soon from the hospital to the family adviser.

A similar line of action was taken by the Liverpool Medical Institution after an inquiry by a specially appointed Committee. My action in the matter was the outcome of very scurvy treatment by an insurance company, who returned my bill for a guinea, saying there must be some mistake, as the usual charge was 2s. 6d.—I am, etc.,

Tranmere. March 20th. **H. Laird Pearson.**

⁂ Our correspondent is mistaken in thinking that "the house-surgeon, and the house-surgeon only, can give the certificate and the information required." In proof of this we can assure him that in larger centres than Birkenhead, and in larger hospitals than the Birkenhead Hospital, such certificates are not given by the resident staff, and the fees are not diverted from the pockets of the medical practitioners of the town and district.

RAILWAY MEDICAL OFFICERS' UNION.

Sir,—It has been suggested that we should have a "union of medical officers to the various railway companies," and that, as I happen to hold appointments to the Great Central and Great Northern, I should ask, through the British Medical Journal, for those holding such appointments to at once send me their names and addresses, as well as their ideas and suggestions, with a view to calling a meeting at some convenient place at an early date.—I am, etc.,

G. H. Broadbent.

8, Ardwick Green, Manchester, March 22nd.

A CASE OF DEATH UNDER CHLOROFORM.

Sir,—The unfortunate fatality under chloroform reported by Mr. Cathcart in your issue of February 25th presents features of considerable interest. The completeness of the record of the case leaves no doubt as to the accuracy of the symptoms described, which tally to a remarkable extent with those present in certain cases already reported and in some others to which I have drawn attention.[1]

The cause of death was clearly primary failure of the circulation and not primary respiratory paralysis. The salient point in cases of this class is that the respirations are free and full at a period when the circulation is almost absent. It is quite conceivable that this free respiration might mislead those administrators who rely solely upon "watching the respirations" during the exhibition of chloroform, that is, "watching" in the sense of being satisfied with the mere presence of free respiratory movements. This however certainly did not happen in this instance.

A patient satisfactorily under the influence of chloroform should breathe quietly much as during natural sleep. Any modification of the respiratory movements, apart from mechanical obstruction, must arise from one of two causes: either from some change in the blood supply of the respiratory centre or from some reflex interference with that centre. The occurrence of any alteration in the rhythm of the respiratory movements should therefore at once be checked by observations on the condition of the circulation, if the better plan of observing both be not adopted throughout the administration.

In the case reported the respirations were modified by both these causes. The dilatation of the sphincter ani originated an abortive expulsive effort, represented by the laryngeal spasm and irregularity in the respiration. During this time the circulation was no doubt becoming feeble, and quickly reached a degree when the respiratory centre became affected by the anæmia. Anæmia of the respiratory centre originates increased respiratory efforts and hence the "free respirations," which as the centre became more enfeebled degenerated into mere gasps.

Judging from the well-known effect of chloroform upon the vasomotor centre, the failure of the circulation in this case no doubt began in a paralysis of the vasomotor centre. This accounts for the return of colour to the face which is recorded as occurring when the patient's head was lowered. The chief effect of the existence of normal arterial tone is to counteract the influence of gravity upon the blood. Vasomotor paralysis converts the blood vessels into inert tubes, in which the blood is free to flow in response to gravity, and so the facility with which the blood flows to dependent parts is an index of the extent of the loss of arterial tone. This explains how, in this case, the pallor of the face when the patient was recumbent gave place to improvement in the colour when the head was dependent, which improvement persisted until the blood ceased to be aërated, when it gave place to lividity.

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[1] British Medical Journal, 1884, vol. ii, p. 871. Mechanism of Death from Chloroform. *Lancet*, 1894 and 1897. A Case of Death from Chloroform, *Lancet*, 1898, vol. ii.

In these cases the lesion is, in the first instance, a failure of the circulation, indicated by pallor of the face, dilated pupils, and feeble pulse. Could the pulse be accurately observed it would give the first warning of danger. The deep respirations or respiratory movements, more free than normal, are a late sign, and when they pass into inco-ordinate respiratory efforts they indicate that the patient is *in articulo mortis*. It does not seem to be sufficiently appreciated that deep respirations, with pallor and dilated pupils, denote serious failure of the circulation.

If the head is dependent, as in Trendelenburg's position or in operations for post-nasal adenoids, the pallor of the face, for reasons above-mentioned, will not be marked, and there may be present a deceptive hue of health.—I am, etc.,

Alexander Wilson,
Senior Administrator of Anæsthetics, Royal Infirmary, Manchester.
February 27th.

Sir,—The case reported in the British Medical Journal of February 25th, by Mr. Cathcart, is, I think, a typical illustration of one of the ways in which patients die whilst under the influence of chloroform.

An explanation sometimes given of death in such a case as this is that it is due to over-dosage—that the patient after "wincing" takes deep inspirations, and so inhales a large quantity of chloroform vapour. I do not think this theory is required to explain such accidents.

Mr. Cathcart is convinced that the heart failed before the respiration. Having seen the same kind of symptoms (fortunately in a less severe form), I have no doubt that they are cases of primary cardiac failure of reflex origin. Rectal operations seem to be the worst for producing such reflex troubles. A patient may appear to be under the anæsthetic: for example, there is no corneal reflex, pupils contracted, breathing stertorous, and muscles relaxed. Many surgeons would say that directly this condition is induced the patient is ready for operation. For ordinary operations this is correct, but for a rectal case, where the sphincter has to be stretched, it is not quite sufficient. Should the sphincter be stretched as soon as this anæsthetic condition is reached, one is likely to see just the same kind of symptoms as occurred in this fatal case. The pupils immediately dilate, the breathing becomes jerky and crowing, there is pallor of the face, and a weak pulse. These symptoms may be of any degree.

Under such circumstances, the pupil phenomena require special consideration. If the syncope, thus reflexly produced, be very profound, the pupil, which dilated at the moment of the operative procedure, remains inactive for some little time, because of the collapsed condition of the patient. This state of dilatation of the pupil is often interpreted as being due to an overdose of chloroform, when as a matter of fact had more been given, and the patient got more thoroughly under, such reflex dilatation of the pupil would most likely not have occurred.

There are two ways of checking these untoward reflex phenomena connected with rectal surgery. The first is to get the patient into a profound degree of anæsthesia, but this method has unfortunately an element of danger of its own. The second, although not mentioned in books, is, I believe, a safer one, especially for those who have not had much experience of anæsthetics. The patient, having been got into the ordinary surgical anæsthesia, is kept in this condition for at least ten minutes before any operative measures are commenced. By that time the sphincter can be stretched without causing those dangerous reflex symptoms which might have been produced in the earliest stage of the anæsthesia.

These remarks apply only to chloroform; with ether I have never seen any such reflex cardiac trouble.—I am, etc.,

John Freeman,
Bristol, Feb. 28th. Anæsthetist to the Bristol General Hospital.

THE VISION OF SCHOOL CHILDREN.

Sir,—I have to thank Dr. Menzies for his note which appears in the British Medical Journal of February 25th.

He states that 43 children out of 398, or 10.8 per cent., ought to have glasses, and that other 56 would be slightly benefited, that is, a total of 99, or 24.8 per cent. This proposal is of such a revolutionary character that evidence of the most undeniable kind ought to be produced in order to justify its adoption, and Dr. Menzies's paper does not contain such evidence.

He, along with the other ophthalmic surgeons whom he quotes, makes the error of adopting an arbitrary standard, and calling it the normal for children's eyes, whereas his own tables show that Nature has no such fixed standard. Her normal is variety.

He quotes three classes of defects as requiring the use of spectacles. Strabismus is a deformity which, no doubt, parents will try to have remedied in many cases; but with regard to the other two classes, (1) Markedly defective vision hindering the education of the children; and (2) headaches due to eye strain in cases of hypermetropia, I would submit that the system of education ought to made to suit the eyes instead of the eyes being compelled to accommodate themselves to one uniform plan of education.

The communication in the Journal of February 18th from Dr. A. Ogier Ward is noteworthy, inasmuch as it does not contain one reference to glasses from beginning to end.

In conclusion, I may state that I have no figures to give as to the evil of using glasses with growing eyes, as this would require a life study, and I have only recently been taking an interest in the question.—I am, etc.,

Cumbernauld, March 10th. **D. Love, M.B.**

IMPROVEMENT IN *X*-RAY TECHNIQUE.

Sir,—In reference to the Wehnelt current interrupter, in 1874 I used a similar interrupter on a coil with fifty Groves's cells. The idea was not even then new, for although my experiment was due to accidental short-circuiting of electrodes during electrolytic experiments, which led to my final application of the so-called interrupter as a resistance to current, and then as a rapid make-and-break, I found that some of the old masters of electrics had evidently used it before.

Since November, 1896, I have always endeavoured, in using a Jackson tube, to condition the tube by heating behind the cathode when connected with coil, so that the make-and-break of coil shows infinitesimal sparking and works with such rapid vibrations that a musical note is produced, the pitch varying as the position of the flame heating the tube is altered. Shadowgraphs can then be obtained of the human trunk from 35 seconds upwards, and the results on English fluorescent screens are almost perfect. This has all been mentioned in my lectures at the Royal Artillery Institute, etc., the first being the end of October, 1896.—I am, etc.,

Blackheath, March 21st. **William Webster.**

CINNAMON IN INFLUENZA.

Sir,—In your last issue you publish an interesting letter on the above subject from the pen of Dr. Carne Ross. The value of the treatment referred to, I myself, in the Journal of March 16th, 1895, endeavoured to impress upon your readers.

My experience of the antiseptic use of the drug dates from the year 1886, when I was in Ceylon, and there learned of the immunity enjoyed by persons working in cinnamon gardens from severe attacks of malaria, and this led me to try the oil as a remedy wherever an internal antiseptic seemed indicated.

I found it useful in gastro-enteritis, recurrent boils, and I believe I have seen a beneficial effect in typhoid; but I was anything but prepared to find the extraordinary influence it seemed to exert when I began to use it in cases of influenza in, I believe, the 1891 epidemic.

My friend Dr. H. A. Stonham was kind enough to employ my treatment in his large parochial practice and the remarkable results obtained he detailed to you in a letter published also in March, 1895.

Now that Dr. Carne Ross has come forward with all his authority, perhaps you will excuse me reminding you of the above facts, in the hope that our joint weight may suffice to procure for our treatment a general trial. I am, etc.,

London, March 21st. CHARLES GRAHAM GRANT.

OBITUARY.

DEPUTY-INSPECTOR-GENERAL JOSEPH JEE, C.B., V.C.,

Honorary Surgeon to the Queen.

THIS distinguished officer died at his residence, Queniborough Hall, Leicester, on March 17th, aged 81. He was the son of the late Mr. Christopher Preston Jee, of Hartshill, Warwick. He studied in London, and became M.R.C.S. in 1841. He entered the army as Assistant Surgeon in the 1st Royal Dragoons in 1842, and in 1854 became Surgeon of the 78th Highlanders. With this distinguished corps he served in Persia in 1857, at the battle of Khooshab and bombardment of Mohammera, for which he received the medal and clasp.

When the mutiny broke out, the Persian force was hurried to India to take part in its suppression. With his regiment Jee was engaged in Havelock's column at the relief of the Residency of Lucknow, and the subsequent defence, and with Outram's force at Alumbagh, including a great number of engagements, and the final capture of Lucknow. Afterwards he served in the Rohilkhund campaign and capture of Bareilly, for which services he received the medal with two clasps, the decoration of C.B. and the Victoria Cross, and a year's service. Throughout these operations he displayed great devotion and gallantry, and was awarded the Victoria Cross under the following circumstances:

> For most conspicuous gallantry and important services on the entry of Major-General Havelock's relieving force into Lucknow on September 25th, 1857, in having during action (when the 78th Highlanders, then in possession of the Char Bagh, captured two 9-pounders at the point of the bayonet) by great exertion and devoted exposure, attended to the large number of men wounded in the charge, whom he succeeded in getting removed on cots, and on the backs of their comrades, until he had collected the dhooly bearers who had fled.
>
> Subsequently, on the same day, in endeavouring to reach the Residency with the wounded men, Surgeon Jee became besieged with an overwhelming force in the Mote-Mahal, where he remained during the whole night and following morning; voluntarily and repeatedly exposing himself to a heavy fire in proceeding to dress the wounded men who fell while serving a 24-pounder in a most exposed position. He eventually succeeded in taking many of the wounded, through a cross fire of ordnance and musketry, safely into the Residency by the river bank, although repeatedly warned not to make the perilous attempt.

From the foregoing official statement of services it will be seen that no man ever deserved the Victoria Cross more than this gallant "non-combatant." He retired as Surgeon-Major, with the honorary rank of Deputy-Inspector-General in 1868.

Mr. Jee was known to his friends as a most honourable man; a complete Englishman in his love of sport, and one of the most deadly shots at pigeon matches at Hurlingham. He was one of the few remaining links with the army medical service of the past. He was made an Honorary Surgeon to the Queen only a few weeks ago.

HENRY JOHN BUTLER, L.R.C.P.LOND., M.R.C.S.ENG.

THE death took place on March 10th of Dr. Henry J. Butler, of Bradford, Yorks, at the early age of 35 years. The cause of death was blood poisoning following the prick of a safety pin, sustained whilst dressing a case of empyema. From the point of local infection the disease rapidly became general, and death ended the illness after ten days of great suffering.

Dr. Butler was a native of Bradford, and was educated at the St. James's Church School and Bradford Grammar School. After a successful student's career at the Leeds School of Medicine, he filled the post of House-Physician at the General Infirmary, Leeds. Twelve years ago he commenced practice in Bowling, Bradford, and quickly built up for himself a reputation as a conscientious and skilful member of his profession. He was very popular with his patients and deeply respected by his fellow practitioners. He was a member of the Committee of the Bradford and District Medico-Ethical Society, and took great interest in its affairs. It was only on the evening before his fatal misadventure that he read a paper before the Society upon the question of hospital abuse. A special meeting of the same Society, which was called for March 10th, met and adjourned as a sign of respect to his memory, after passing a vote of sympathy to Mrs. Butler in her sad loss.

The funeral was attended by between thirty and forty of the medical men of the city, as well as by several of the clergy and ministers of the district. The peculiarly sad circumstances surrounding Dr. Butler's death caused a deep impression in the minds of all who knew his genial character, and large numbers of the general public paid their last respects to his memory upon the day of his funeral. He left a widow and three children.

THE LATE DR. WILLSHIRE.

SIR SAMUEL WILKS, Bart., has sent us the following additional note on Dr. Willshire, of whom a short obituary notice was published last week:

In the very appreciative notice of Dr. Willshire (not Wilshire) by Dr. Wigg there is only a slight allusion to the art studies which occupied the best hours of the latter half of his life. I was the colleague of Dr. Willshire at the Infirmary for Women and Children and also at the Surrey Dispensary, and I then conceived the very highest opinion of his knowledge of medicine and his general culture. He was especially interested in the diseases of children, and wrote some excellent papers thereon in the *Quarterly Medico-Chirurgical Review* and other journals. Indeed, he had commenced a special practice among children before the Ormond Street Hospital was thought of; his consulting rooms being in Cecil Street. But his mind was ever upon art, and he was soon known as a connoisseur in old engravings. His opinion was so much valued that I believe he was offered a post in the British Museum. This he declined, but he assisted in the production of several catalogues. If any further biography of Dr. Willshire is contemplated I have no doubt that much information might be obtained from Mr. Colvin or from other authorities at the British Museum.

Mr. Balmanno Squire writes: Permit me to add my testimony to the high merits of the late Dr. W. H. Willshire. As with some others, his longevity has impaired the greater interest that would otherwise have been taken in your obituary notice of him. But he was a very exceptional man. Thirty-five years or more ago when I was endeavouring to learn what I could of skin diseases by attending the skin clinics of London I was brought into close contact with Dr. Willshire, who then conducted an informal skin clinic at Charing Cross Hospital. Willshire with greatly inferior opportunities was like Sir William Jenner, a most accomplished clinical teacher. Of one, as of the other, it may be said that to have been much in contact with him was an ennobling influence; either the one or the other was an excellent object lesson as to what sort of man a physician should be. A want of one of the more commonplace but in the battle of life most essential of qualities alone prevented Willshire from rising to the highest rank amongst physicians. He needed only complete self-confidence in his demeanour. He had the gratification of knowing shortly before his death that the department which he founded at his hospital had been raised to a leading position amongst the clinics of London.

WE record with regret the death of Dr. MATTHEW CORRI HALTON at his residence, Barnsley, Yorkshire, on March 7th. Matthew Corri Halton was born at Mullingar, Ireland, in 1843, and had consequently nearly completed his 56th year. He belonged to a family of musicians, and his father was for over fifty years organist to the Catholic Cathedral, Mullingar. He received his medical training at the Ledwich School of Medicine, Dublin, and in Meath Hospital. He went to Barnsley in 1868 as assistant to Dr. Blackburn, and in five years had so won the respect of the inhabitants, that on his withdrawal in 1873 they presented him with an address, a case of surgical instruments, a gold watch, and a purse containing £50. He returned to Ireland, and obtained the diploma of L.R.C.P.I. in 1874, and shortly afterwards went again to Barnsley, where he started in practice, which shortly became extensive. He joined the Barnsley Rifle Volunteers, of which he eventually became Honorary Surgeon. He was an ardent Home Ruler, was for nine years President of Barnsley Radical Club, and his services as a speaker were in great requisition at Liberal demonstrations. He was also a member of the Town Council of the Borough since 1888, and was Mayor from November, 1892, to November, 1894. In 1893 the great miners' strike occurred, with a huge amount of concomitant distress and local excitement, which added much to the Mayor's anxiety and responsibility; but he steered a wise and conciliatory course through the trouble, and when he retired received cordial thanks for his services. He was soon afterwards chosen as an Alderman of the Borough, and appointed J.P. for the West Riding, and afterwards for Barnsley. He was a consistent Roman Catholic, but very tolerant of the religious views of his neighbours, and on good terms with ministers and members of all denominations. He was Surgeon to the West Riding Constabulary and the Barnsley Post Office officials; and Medical Inspector on behalf of the Yorkshire Coal Owners under the Workmen's Compensation Act. Dr. Halton's death was due to influenza complicated by pneumonia. He leaves a widow, two sons, and a daughter. The funeral took place on March 10th amidst signs on every side of deep regret and respect.

DR. SAMUEL LEONARD CRANE, C.M.G., late of Trinidad and Jamaica, who died recently at the age of 68, was born in 1830, his father being James Noble Crane of Nova Scotia. Dr. Crane obtained the M.D. degree of Pennsylvania in 1850, and in that same year entered the Civil Service as Assistant Surgeon to the hospital ship *Tenedos*. He became M.R.C.S.Eng. in 1855, and was Surgeon-Superintendent to the Commissioners of Emigration from 1855 to 1871. He was appointed Surgeon-General of Trinidad in 1871, Medical Officer of Health 1872, a J.P. 1884, a member of the Legislative Council of that Colony in 1893, Superintendent Medical Officer of Jamaica in the same year, a post which he retained until his retirement in 1897. He was appointed a member of the Legislative Council of Jamaica in 1894, having been already created C.M.G. in 1888. He married in 1887 the daughter of Mr. William Crane, Speaker of the House of Assembly, New Brunswick, but was left a widower in 1892.

MR. H. J. KNIGHT, of Rotherham, Yorkshire, died there under very sad circumstances on Sunday, March 12th. He was the youngest son of the late Rev. James Knight, who for thirty-six years was vicar of St. Paul's, Sheffield. His training for the medical profession was begun at the Sheffield Medical School and completed at St. Bartholomew's Hospital, London. He became M.R.C.S. and L.S.A. in 1858, and was appointed House-Surgeon to the Sheffield Infirmary, filling that position from 1858 to 1863. In 1864 he went to Rotherham and commenced to practise there. The practice was highly successful, and he was joined in partnership by Mr. W. A. Garrard in 1876, and later by his son (Dr. H. E. Knight). Mr. Knight was for years churchwarden of Rotherham. He was passionately fond of good music, and for several years President of the local orchestral society. He was appointed a magistrate in 1893, and was for years a member of the Council of the Yorkshire Branch of the British Medical Association. He contributed reports of cases to the BRITISH MEDICAL JOURNAL, amongst them being two cases of poisoning, one by bichromate of potassium (1885) and another by sicherheit explosive (1889). He was genial, and uniformly beloved and respected, and his sudden death caused a painful shock to his patients and friends in Rotherham, and elicited a spontaneous expression of sympathy for his widow and family. In 1865 he married Miss Barton, of Easingwold, and that lady and four sons survive him. At an inquest held by the Deputy Coroner, Mr. B. Bagshawe, on the following Tuesday, it was proved that Mr. Knight had died from prussic acid administered by himself. He was found at 1 P.M. on Sunday, lying unconscious on the floor of the consulting room, and breathing stertorously. The stomach pump and various remedies were applied, but without avail; consciousness was never regained, and death resulted at about 2.30 P.M. Mr. Knight had been subject to fits of despondency, and had expressed the belief that he had ceased to be possessed of professional skill. The verdict was one of "suicide during a state of temporary insanity." The funeral was attended by a large concourse of friends and neighbours.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries and the Colonies who have recently died are Dr. Bouchard, Professor of Anatomy in the Medical Faculty of Bordeaux, author of *Les Nouveaux Eléments d'Anatomie Descriptive et d'Embryologie; Précis d'Anatomie et de Dissection; Nouveaux Eléments de Pathologie Externe*, and other valuable contributions to medical literature; Dr. Julius Samelsohn, a well-known ophthalmologist of Cologne, aged 57; and Dr. John A. Mullin, of Ontario, one of the leading physicians of Canada, a past President of the Canadian Medical Association, aged 64.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

USE OF PHOSPHORUS IN THE MANUFACTURE OF LUCIFER MATCHES.*

THE REPORT OF THE HOME OFFICE COMMITTEE.

In June of last year, owing to the attention which had been called to the matter in Parliament, the Home Secretary invited three experts to make an inquiry into the effect of work in lucifer match factories on the health of the workpeople. That inquiry is now completed. The reports, which bear the signatures of Professor Thorpe, Principal Chemist of the Government Laboratory; Professor T. Oliver, Physician to the Royal Infirmary, Newcastle-upon-Tyne; and Dr. George Cunningham, Senior Dental Surgeon to the London Hospital, form a bulky Blue Book of 236 pages. We question whether in this or any other country there has ever been given to the public such an accumulation of knowledge and experience as is to be found within this Government publication. The Home Secretary is now in possession of an amount of scientific and trustworthy information in regard to the matchmaking industry, both at home and abroad, which cannot fail to be of the greatest assistance to him in framing regulations which, when loyally carried out, will remove from the trade the stigma that has so long lain upon it.

CHEMICAL INVESTIGATIONS.

To Professor T. E. Thorpe, whose name has so long been known in connection with all that relates to phosphorus, was entrusted the duty of making the chemical investigation, and of carrying out in the laboratory such experiments as might help to a solution of certain unsettled problems relating to the effects of phosphorus upon health. He tells us that eight-tenths of the "fume" arising from phosphorus consist of the oxides of phosphorus, and that although this substance is prone to become oxidised it does so only when oxygen is operating in the presence of moisture. Phosphorus does not ignite in dry oxygen. The glow of white phosphorus is due to oxidation, and this can be checked by the vapours of certain hydrocarbons, for example, oil of turpentine, eucalyptus, and other essential oils. Experiments were carried out in the Government Chemical Laboratory with the view of ascertaining what effects might be produced upon teeth by the action of (1) phosphorus fumes and of (2) phosphoric acid. In the one experiment Dr. Thorpe found that teeth lost 0.37 per cent. of their weight, and in the other that 8.9 per cent. of the weight was lost. The fume of phosphorus when dissolved in the saliva is, therefore, capable of exerting a marked solvent action upon the teeth. Dr. Thorpe visited every matchworks at home and several on the Continent. He contrasts our own factories with those abroad, and concludes in favour of the latter. His report is embellished by drawings showing how machinery may with advantage replace hand labour, and how ventilation of the various departments in match factories may be improved.

THE NATURE AND PREVENTION OF PHOSPHORUS NECROSIS.

Dr. Oliver deals with the medical aspects of the question generally, with the causes of phosphorus necrosis, and with the means that ought to be adopted for the removal of danger. From one of the appendices we learn that he had already reported upon the French match industry, but in the present report he enters into details concerning the lucifer industry both at home and abroad. Attention is drawn by him to the existence of a constitutional state in French matchmakers called *phosphorisme*, characterised by anæmia or cachexia, dyspepsia and albuminuria. *Phosphorisme* is more frequently observed on the Continent than here. Years ago it was taught that pregnant women employed as matchmakers were prone to miscarry, but the report concludes that there is no evidence for this statement. A short time ago Dr. Garman's name was unpleasantly before the public on account of certain cases of phosphorus necrosis at Messrs. Bryant and May's, but no one can read these reports without being struck by the assistance which he has given to the various members of this special inquiry. During the twenty-five years that he has acted as medical officer to the Fairfield Works he has had through his hands 51 cases of phosphorus necrosis, 9 of which ended fatally. Of his patients 83 per cent. recovered. While it is generally admitted that "phossy jaw" occurs mostly in those who have worked several years in a match factory, yet it is the younger workers who succumb to the disease. One of Dr. Garman's patients was only 19 years of age. The writer of the medical part of the report is of opinion that in the absence of decayed teeth phosphorus necrosis is not likely to arise. A few months ago Professor Stockman drew attention in the pages of the BRITISH MEDICAL JOURNAL to phosphorus necrosis and its dependence upon the action of the tubercle bacillus. Dr. Oliver does not accept this opinion. He does not admit that the process is tuberculous. The micro-organisms which were found in the pus obtained from necrosing jawbones of matchmakers were such as ordinarily excite suppuration—streptococci and staphylococci. It is to the operation of such micro-organisms penetrating carious teeth in individuals whose health has been previously debilitated by exposure to the fumes of phosphorus that the disease of the bone may be due. Although it is only in the maxillæ of matchmakers, particularly the dippers and boxers, that necrosis occurs there is yet developed in some a peculiar fragility of other bones. At Grammont in Belgium Dr. Brocoorens in twenty-five years met with 30 cases of spontaneous fracture of the long bones. This accident is not unknown in our own country. Dr. Oliver visited matchworks in France, Belgium, and Silesia, as well as at home, and as the result of his experience he concludes that the time has not yet come to recommend the total abolition of white phosphorus, for matches can be and are manufactured from this substance without risk to health, and that phosphorus necrosis is an accident which by the exercise of caution and rigid attention to sanitary details can be eliminated from the industry.

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* Reports to the Secretary of State for the Home Department on the Use of Phosphorus in the Manufacture of Lucifer Matches. Published by Messrs. Eyre and Spottiswoode. Price 4s. 11d.

Seeing that the prevention of phosphorus necrosis is largely a matter of dentistry, we turn with interest to the report of Dr. Cunningham. His contribution forms nearly one half of the volume. The portion dealing with the causation of necrosis is particularly valuable. Considerable stress is properly laid upon the relation of carious teeth and phossy jaw. As a dentist he finds himself unable to support the theory that "phossy jaw" is a tuberculous disease, nor does he consider that matchmakers are more prone to tuberculous phthisis than are operatives in other factories. Dr. Cunningham is not a believer in the existence to any extent, in this country at any rate, of *phosphorisme*. Neither he nor Dr. Stewart detected it. From American statistics it is not met with once in 1,000 workpeople. Since the bacterial causation of phosphorus necrosis commends itself to Dr. Cunningham. He makes several important recommendations in regard to dental examination of the workpeople and to the employment of mouth washes, the principal ingredient of which should be an antiseptic—such, for example, as carbolic acid.

THE REGULATION OF THE MANUFACTURE.

The reports of the three experts has been admirably summarised by Dr. Whitelegge, the Chief Inspector of Factories, in a preface in which we are reminded that the inquiry was the outcome of the concealment of certain cases of phosphorus necrosis. Each country in Europe has had at one time or another to face this question of the danger to health in lucifer match works. Years ago Denmark took the initiative of totally prohibiting the use of white phosphorus and since then "phossy jaw" has been unknown in the country. Switzerland is deliberating as to whether she shall follow the example that has been set her. Russia has tried to solve the problem by imposing a tax upon the ordinary phosphorus matches in the hope that thereby the use of "safeties" may be encouraged, and France within the last few months has sought to supplant the harmful match by one made from the harmless sesquisulphide of phosphorus. In one of the appendices in the reports the question of the "*sans phosphore*" match is fully dealt with, but the opinion expressed in regard to it is that the match is still on its trial and has not as yet passed beyond the experimental stage. It is clear from the reports that the regulations of the Home Office at present in force are not sufficient and will have to be materially modified if matchmaking is to be become a safe industry. Continental manufacturers are in many places far ahead of British in the adaptability of their buildings to this particular industry, in methods of manufacture, and the greater care exhibited in the selection of the workpeople, who come in many instances from a better class than they do in this country. It is not recommended by the three gentlemen who have signed the report that the use of white phosphorus should be entirely prohibited. Its use should be limited and wherever possible machinery should replace hand labour. Personal cleanliness is insisted upon, and it is pointed out that repeated medical and dental examination of the workpeople is not only advisable but necessary.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns, including London, 6,694 births and 5,099 deaths were registered during the week ending Saturday, last, March 18th. The annual rate of mortality in these towns, which had increased from 19.5 to 22.2 per 1,000 in the four preceding weeks, further rose to 23.3 last week. The rates in the several towns ranged from 12.7 in Derby, 16.4 in Portsmouth, 16.5 in Hull, and 16.6 in Leicester, to 28.0 in Oldham, 28.8 in Liverpool, 31.5 in Salford, and 31.9 in Manchester. In the thirty-two provincial towns the mean death-rate was 22.8 per 1,000, and was 1.3 below the rate recorded in London, which was 24.1 per 1,000. The zymotic death-rate in the thirty-three towns averaged 1.9 per 1,000; in London the rate was equal to 2.0 per 1,000, while it averaged 1.8 in the thirty-two provincial towns, among which the highest zymotic death-rates were 3.1 in Salford, 3.5 in Wolverhampton and in Blackburn, and 4.4 in Preston. Measles caused a death-rate of 1.2 in Leeds, 1.4 in Salford, 1.9 in Manchester, and 2.1 in West Ham; scarlet fever of 1.0 in Oldham; whooping-cough of 1.1 in Hull, 1.3 in Bradford, 2.3 in Birkenhead, and 3.1 in Preston; and "fever" of 1.2 in Wolverhampton. The 88 deaths from diphtheria in the thirty-three towns included 45 in London, 7 in Sheffield, 5 in Liverpool, 4 in Leicester, and 3 in Swansea. No fatal case of small-pox was registered during the week under notice, either in London or in any of the thirty-two large provincial towns; and only 1 small-pox patient was under treatment in the Metropolitan Asylums Hospitals on Saturday last, March 18th. The number of scarlet fever patients in these hospitals and in the London Fever Hospital, which had been 2,584 and 2,540 at the end of the two preceding weeks, had further declined to 2,437 on Saturday last; 224 new cases were admitted during the week, against 241, 236, and 217 in the three preceding weeks.

HEALTH OF SCOTCH TOWNS.

DURING the week ending Saturday last, March 18th, 925 births and 640 deaths were registered in eight of the principal Scotch towns. The annual rate of mortality in these towns, which had been 25.1 and 22.8 per 1,000 in the two preceding weeks, further declined to 21.0 last week, and was 2.3 per 1,000 below the mean rate during the same period in the thirty-three large English towns. Among these Scotch towns the death-rates ranged from 17.5 in Leith and 18.4 in Edinburgh to 21.9 in Glasgow and 27.3 in Aberdeen. The zymotic death-rate in these towns averaged 2.9 per 1,000, the highest rates being recorded in Leith and Aberdeen. The 309 deaths registered in Glasgow included 18 from measles, 3 from scarlet fever, 4 from diphtheria, 10 from whooping-cough, 4 from "fever," and 7 from diarrhœa. Nine fatal cases of whooping-cough and 2 of "fever" were recorded in Edinburgh, and 12 deaths were referred to measles in Aberdeen.

LONDON WATER BILLS.

LONDON Government and London Water Supply had their innings in the House of Commons on Tuesday. It is in the latter subject we are naturally more especially interested. Five Bills dealing with this subject were on the list. Four of them were promoted by London companies, and were all four read a second time. The fifth was the Bill of the London County Council to secure a supplementary water supply from Wales. It was, with the assistance of the President of the Local Government Board, ignominiously rejected. The smaller Bills which go forward to the Committee stage are two of them promoted by the East London Company. One of these proposes the expenditure of another million and a-half for impounding the waters of the Lee, storage of 5,000 million gallons being provided. The other was the East London (Temporary Supply) Bill, enabling the company to draw water in certain emergencies from the Thames. The "Metropolitan Water Companies" Bill is also of the stopgap kind, and contains clauses which, Mr. Chaplin explained, could not be introduced into the Government measure already introduced. The West Middlesex Water Bill anticipates certain powers which were to be conceded when further storage reservoirs had been completed. All pleas to send these four Bills to one Committee, along with the County Council Bill, were ignored, and they were all four read a second time. The latter was rejected on the ostensible ground that the Water Commission have not yet completed their report. Meantime the Welsh gathering grounds remain unsecured.

LORD HERSCHELL AND THE JENNER SOCIETY.

AT a recent meeting of the Jenner Society, held at Gloucester, it was unanimously resolved to send to Lady Herschell the following expression of appreciation of the great service rendered to his country by the late Lord Herschell as President of the Royal Commission on Vaccination:

The President and members of the Jenner Society, whilst uniting in the general expression of deep regret for the death of the late Lord Herschell, and of warm appreciation of the great services he in so many ways rendered to his country, desire especially to record their sense of the singular ability, the perfect impartiality, and the untiring patience with which, as President of the Royal Commission on Vaccination, he for seven years conducted an important and difficult inquiry, with the firm determination, as he himself subsequently said, "to follow boldly the facts which experience disclosed, whithersoever these might lead," and with the earnest desire, when the truth had been established, to so apply it as might be most beneficial to the public health.

The resolution is signed by the President, the Earl of Ducie, Lord Lieutenant of Gloucestershire; the Chairman of the Executive Committee, Dean Spence, D.D.; Mr. G. E. Lloyd Baker, High Sheriff of Gloucestershire; and Dr. Bond, the Honorary Secretary.

THE L.S.A. AND POOR-LAW APPOINTMENTS.

M.B.A. asks whether one holding the L.S.A. qualification can be appointed Poor-law medical officer and public vaccinator, if another holding a double qualification is resident in the district.

⁂ The holder of the L.S.A., if obtained since the coming into force of the Medical Act, 1886, and if on the *Medical Register*, is clearly qualified for the appointment in question, notwithstanding that another medical man possessing a double qualification resides in the district.

VACANT POOR LAW DISTRICT APPOINTMENT.

A. B. writes saying that a medical man in his neighbourhood has just resigned his appointment of Poor-law district medical officer, which he has held for many years. The practitioner who is succeeding him in practice is applying for the appointment. The vacancy is now advertised in a local paper only. "A. B." wishes to know whether he will be in any way committing a breach of strict medical etiquette by applying for the appointment. He says he intends to give notice to the practitioner of his intention before the election.

⁂ There is considerable difference of opinion on this question. If the appointment is advertised as vacant, it is, of course, open to any one to apply for it, but if the former holder is retiring from practice and has disposed of his interest in it, either to a junior partner or to anyone else, it is sometimes considered that his successor in the practice has so strong a claim for the appointments connected with it as to make it bad taste for a near neighbour to become an opponent at the election.

ROYAL NAVY AND ARMY MILITARY SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been made at the Admiralty: JOHN W. CRAIG, Surgeon, to the *Vivid*, for disposal, March 14th; RICHARD D. WHITE, Fleet-Surgeon, to the *Hibernia*, for Malta Yard, March 13th; HOWARD J. McC. TODD, Fleet-Surgeon, to the *Ramillies*, March 13th; WILLIAM S. LIGHTFOOT, Staff-Surgeon, to the *Illustrious*, March 13th; JOHN McELWEE, Surgeon, to the *Cambridge*, March 27th: CORNELIUS BRADLEY, M.D., Staff-Surgeon, to the *Colossus*, temporarily, March 28th; FREDERICK J. A. DALTON, Surgeon, to Plymouth Hospital, April 6th AMES H. FERGUSSON, Surgeon, to the *Victory*, for disposal, March 21st.

ROYAL ARMY MEDICAL CORPS.

CAPTAIN HENRY A. BERRYMAN is placed on temporary half-pay on account of ill-health, March 23rd. He entered the service as Surgeon-Lieutenant, January 30th, 1893, and was made Surgeon-Captain, January 30th, 1896.

The Christian names of Lieutenant SCOTT are ALEC LAURISTON, and not as stated in the *Gazette* of February 21st.

Brigade-Surgeon WILLIAM WEST QUINTON, M.B., was recently found dead in a field near his house at King's Teignton, Devon. He entered the service as Assistant-Surgeon, April 14th, 1863; became Surgeon, March 1st, 1873; and Surgeon-Major, April 28th, 1876. He went on retired pay, with the honorary rank of Brigade-Surgeon, August 27th, 1884.

Surgeon-Major-General WILLIAM MARSHALL WEBB died recently at the age of 65. His commissions were thus dated: Assistant-Surgeon, March 24th, 1854: Surgeon, January 15th, 1864; Surgeon-Major, March 1st, 1873; Brigade-Surgeon, November 27th, 1879; Deputy-Surgeon-General, July 5th, 1881; Surgeon-Major-General, December 31st, 1887. He was placed on retired pay, July 6th, 1893. He served with the 19th Regiment throughout the Crimean campaign (1854-55), and was present at the battles of Alma and of Inkerman, and also at the siege of Sebastopol, being rewarded with the medal and three clasps and the Turkish medal.

ARMY MEDICAL RESERVE.

SURGEON-LIEUTENANT CHARLES E. R. BUCKNILL, 2nd Volunteer Battalion the East Lancashire Regiment, to be Surgeon-Lieutenant, March 22nd.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL W. H. THORNHILL, M.D., Madras Establishment, has retired from the service, from April 8th. He was appointed Assistant Surgeon, October 1st, 1877, and became Surgeon-Lieutenant-Colonel, October 1st, 1897. He was in the Afghan war in 1879-80 (medal), and with the Burmese expedition in 1886-88 (medal with clasp).

Lieutenant-Colonel G. F. BEVAN, Madras Establishment, has been appointed to officiate as Principal Medical Officer Rangoon District and Southern Shan States Command.

Major JOHN FENTON EVANS, Bengal Establishment, Professor of Pathology in the Calcutta Medical College, died on March 13th, aged 40, from the plague, believed to have been contracted while engaged in a *post-mortem* examination of a plague patient. He joined the department as Surgeon, April 1st, 1886, and became Surgeon-Major twelve years later. He was with the Burmese expedition in 1887-89 (medal with clasp), and in the operations in Lushai in 1892 with the Eastern Sonai Column.

THE VOLUNTEERS.

THE undermentioned gentlemen are appointed Surgeon-Lieutenants in the respective corps specified, dated March 22nd; ROBERT B. PURVES, M.B., 1st Edinburgh (City) Artillery; JOSHUA L. KERR, M.D., 2nd (the Weald of Kent) Volunteer Battalion the Buffs (East Kent Regiment); WILLIAM J. STEPHENS, 5th (the Hay Tor) Volunteer Battalion the Devonshire Regiment; JOHN ORR, M.B., 1st Volunteer Battalion the Manchester Regiment.

The following officers have resigned their commissions from March 22nd: Surgeon-Lieutenant J. F. STURROCK, M.B., 1st Forfarshire Artillery; Surgeon-Captain W. J. SPROTT, M.D., 1st Nottinghamshire (Robin Hood) Rifles; Surgeon-Captain E. A. HUGHES, 1st London Rifles.

VOLUNTEER MEDICAL STAFF CORPS.

SURGEON-LIEUTENANT W. GILL, the Manchester Companies, has resigned his commission, March 22nd.

Surgeon-Lieutenant A. PHILLIPS, the Manchester Companies, is promoted to be Surgeon-Captain, March 22nd.

THE MEDICAL SERVICE OF THE UNITED STATES ARMY.

WITH the report of General Miles, Commander-in-Chief, on the condition of the United States forces during the late war, also appears a report by the Surgeon-General of the Army on the same subject. In these reports there is no attempt to gloss over or conceal the deplorably inefficient condition of the suddenly assembld forces; but a frank avowal is made of the shortcomings, which might have been disastrous had the enemy to be met been more formidable. The Surgeon-General states that the number of medical officers allowed in the army, namely 192, is "inadequate even in times of peace;" and it was consequently necessary to employ a staff of 650 "contract surgeons" by forced selection in a hurried call for their services. Medical men inexperienced in military matters were assigned responsible positions and afterwards unfairly charged with incapacity. The demand for trained nurses likewise far exceeded the very limited supply from the trained hospital corps, nor was it possible to get suitable hands from regiments or from outside sources.

There were abundant medical supplies, but it was out of the question to obtain adequate or timely transports for them. The prevalence of so much sickness is frankly ascribed to imperfect sanitation, together with want of experience in the medical officers in charge, rather than to badly chosen sites for camps.

Among the troops themselves it is stated a leading factor in the development of disease was the reduction of the age limit in recruits from 21 to 18 years; pronounced to have been "a fatal misjudgment." Another mistake was the formation of camps near large cities, which led to drunkenness and dissipation.

There is here an object lesson, not alone to the Americans but to ourselves. The former have discovered that no amount of raw material to draw upon constitutes real military strength; that an improvised army is a broken reed; that, like all other effective organisations, the military machine to be efficient in war must be perfected in peace; that a mere mob of "men with muskets," without sufficient officers and non-commissioned officers, and supply services, is not an army in the modern sense.

The moral we would especially draw for our own War Office may be embodied in the question: Is it certain we have a sufficient and efficient medical service for two army corps hastily assembled? Are our military authorities relying on a non-existent medical reserve or on "contract surgeons" from which to improvise a scratch medical service? If the latter is the case, which we greatly fear (because Lord Wolseley has, so far as we know, never indicated from what source he is prepared to organise an efficient medical service for the two army corps which, he stated, could be called into being before ships were ready for them), then we are deliberately courting the disasters which recently befel the American forces. These be matters which the country and Parliament cannot afford to let slide.

ARMY BOOTMAKING.

SOME interesting experiments have lately been carried out in Berlin: 1,200 shoemakers drawn from each of the eighteen army corps, with the exception of the two Bavarian corps, were ordered to Berlin. A certain number of officers and under officers were also summoned to supervise this drill of the shoemakers, as well as 40 locksmiths, who were to be in readiness in case of necessity to repair any damages to the machines. Two of these were worked night and day, the one from 2 A.M. to 2 P.M., the other from 2 P.M. to 2 A.M. The 1,200 shoemakers were able to complete each day 2,500 pairs of boots for cavalry and infantry. For the ten days during which the work was carried on the men were paid at the rate of 6s. 5d. a day.

INDIAN MILITARY COOKING.

THE latest scheme to combat the uncleanliness that is found in barrack-room cookhouses in India is to regularly enlist native cooks and subject them to strict military discipline, with power to fine or punish them if necessary. Captain Iremonger of the 2nd Durham Light Infantry is the author of a small book, *The Indian Cookhouse*, in which the scheme is proposed. This officer has devoted special attention to the subject, a very important one, on which he writes. The arrangements regarding native cooks are, as we have often stated, not satisfactory, but if the experiments to make British soldiers do all their cooking, already made on a small scale with such beneficial results to health, be extended largely in India, there will be no need for enlisting native cooks at all. The experiments to which allusion is made have been noted in past issues of the **British Medical Journal**.

PROMOTION TESTS IN THE ARMY MEDICAL SERVICE.

In an article in a recent issue of the *Times of India* the following passage occurs: "At present medical officers once they have left Netley have to pass no such tests" (for instance, examination tests, by passing which the combatant ranks of Captain, Major, and Commanding Officer are attained). Our contemporary appears to have been unaware that the Army Medical Regulations of 1896 show in Appendix No. 1 "regulations for the examination of Surgeon-Captains before promotion to Surgeon-Major." The examination for Lieutenant-Colonels (Brigade-Surgeons) rank was abolished some time ago.

MEDICO-LEGAL.

Replies in this column are limited to questions affecting the legal interests and privileges of the medical profession at large. The column is not to be used as a medium for affording legal advice in private or personal matters as to which the applicant ought to consult his own solicitor.

THE ROYAL BLUE BOOK.

Mr. Charles F. Martelli (10, Staple Inn, London) writes: Referring to a note of the **British Medical Journal** of March 11th under the above heading, I beg to inform you that my client, the physician therein referred to other than the lady (for whom I am not concerned), for the first time learnt that he had been given an unsolicited advertisement in the Blue Book, on having his attention called to your editorial note, and being told that he was one of the two professional persons alluded to.

This gentleman's name was inserted in the Trades and Professional Section of the Blue Book absolutely without his authority or knowledge. Immediately on its being pointed out to him he instructed me to address a communication to the proprietors of the Blue Book, the purport of which will be apparent to you from the reply received from Messrs. Kelly's, a copy of which I append hereto.

From that copy I omit only the name of my client, who does not desire a second advertisement.

(Copy.)

"Kelly's Directories, Ltd.

"*Post Office Directory* Office, 182, 183, 184, High Holborn,
"London, March 15th, 1899.

"To C. F. Martelli, Esq., Solicitor.

"Sir,—We have given instructions that no further copies of the Blue Book with the matter at page 1,438 of which your client complains left in are to be sold here.

"We are also taking immediate steps to have the matter complained of eliminated from every book which may be in the hands of booksellers.

"We can only express our regret that any mistake should have been made in the matter, and your client may rely upon it not being in any way repeated in the forthcoming edition of the Blue Book.

"We are, Sir, yours obediently,
"Kelly's Directories, Limited
"(J. R. Kelly, Managing Director)."

SALARY OF ASSISTANT DURING ILLNESS.

A correspondent writes as follows: I am assistant to a medical man, with whom I have a mere verbal arrangement to stay with him, living indoors, all found, for the winter months. Unfortunately I have been laid up for the last month with influenza and pneumonia, and shall not in all probability be able to resume work for some time yet. I wish to know what is the usual custom with regard to salary during illness and convalescence. My employer also called in two nurses to look after me. I suppose I myself must settle their account.

⁂ We are not aware that questions of this nature are governed by any special custom, and in the absence of such custom the matter is regulated by ordinary legal principles. We are therefore of opinion that our correspondent is entitled to receive his salary during the period of disablement, but must himself pay for the nursing.

UNQUALIFIED DISPENSING.

A correspondent states that he is visiting medical officer (non-resident) to a convalescent hospital under the management of a Sisterhood. The dispensing of the medicines that he orders for the patients is done by a Sister, who is not legally qualified as a dispenser but who has received instruction at one or other of the establishments of the Sisterhood. Our correspondent wishes to be informed if he would be held responsible should any mistake occur in the dispensing.

⁂ We consider that a grave moral responsibility would attach to our correspondent, should a mistake occur, for knowingly allowing his prescriptions to be made up by an unqualified person, and we should recommend him to take steps to procure the appointment of a proper dispenser.

The Association of German Railway Surgeons will hold its annual meeting this year at Nuremberg on September 12th.

UNIVERSITIES AND COLLEGES.

SOCIETY OF APOTHECARIES OF LONDON.

Pass List, March, 1899.—The following candidates passed in:

Surgery.—C. J. Coleman, Cambridge and Birmingham; A. G. C. Davies (Section I), Guy's Hospital; E. L. Gowlland (Sections I and II), St. Mary's Hospital; H. W. Hues, Birmingham; W. A. H. B. Smith, King's College Hospital.

Medicine.—H. S. A. Davies (Section I), Michigan; H. H. J. Edwards (Section I), St. Thomas's Hospital; F. Golding Bird, Guy's Hospital; V. S. Partridge (Section I), Charing Cross Hospital; R. C. Robertson, Charing Cross Hospital; W. P. Williamson, McGill.

Forensic Medicine.—H. S. A. Davies, Michigan; H. H. J. Edwards, St. Thomas's Hospital; P. J. Fitzgerald, Dublin; V. S. Partridge, Charing Cross Hospital; R. C. Robertson, Charing Cross Hospital; H. Whittaker, Cambridge; W. P. Williamson, McGill.

Midwifery.—W. P. Allen, Birmingham; J. T. Crowe, St. Mary's Hospital; H. H. J. Edwards, St. Thomas's Hospital; W. M. Hocken, Liverpool; H. L. Laidman, Manchester; C. C. Morgan, St. Bartholomew's Hospital; F. C. Torbitt, Manchester; W. P. Williamson, McGill; T. Young, St. Bartholomew's Hospital.

The diploma of the Society was granted to W. A. H. B. Smith and H. W. Hues.

CONJOINT BOARD IN IRELAND.

Preliminary Examination.—Candidates have passed this examination as undernoted:

Honours Division (in order of merit).—A. J. Conroy,* B. A. C. Neville, E. Purcell, J. Quicke.

Pass Division (alphabetically).—H. I. Anderson, Miss G. W. Clarke, W. P. Cussen, L. L. Davys, T. J. Fenning, J. D. Flood, J. M. Galway-Foley, E. P. Harding, J. C. Heelan, S. G. Howle, P. M. Keane, E. Kemp, M. Kennedy, W. F. B. Loughnan, D. de C. O'Grady, F. A. C. Salmon, J. Smith, S. M. Smyth, A. M. Walsh, J. W. M. Winckworth.

* Scored 90 per cent. on the entire examination.

INDIA AND THE COLONIES.

JAMAICA.

Annual Report of the Superintending Medical Officer.—From the annual report of Dr. Mosse, the Superintending Medical Officer of Jamaica, for the year ending March, 1898, we learn that, notwithstanding the outbreak of yellow fever during the year, the general health of the island did not compare unfavourably with previous years. There was no unusual prevalence of disease except under the head of fevers. The mortality statistics of Kingston show an increase for the year, and reached 30.0 per 1,000. This high figure was due partly to the occurrence of yellow fever, but also largely to the want of attention to simple hygienic principles amongst the poorer classes; and overcrowding, imperfect ventilation, unwholesome and insufficient food, and general neglect are responsible for a large amount of avoidable disease and death. In his remarks on the epidemic of yellow fever in Kingston in 1897, Dr. Mosse contends that the disease is not directly communicable from the sick to the healthy. During the last decade sporadic cases have been admitted to the general wards of the Public Hospital, and though there have been as many as 14 cases at one time in the wards of a severe type, yet no instance of infection extending from them to anyone connected with the institution has occurred. He holds that aërial convection and not direct infection explains the spread of the disease. The other most prevalent diseases on the island are enteric fever (39 deaths), malarial fever (73 deaths), and dysentery (66 deaths). The high mortality from phthisis, 150 deaths—a rate of 2.76 per 1,000 living—is due mainly to the insanitary conditions generally, and to the apparent absence of any systematic attempt to prevent the spread of tuberculosis. The mortality-rate among children was also very high, 26.22 and 36.4 per cent. of the total number of deaths registered occurred respectfully in infants under 1 year, and in children under 5 years of age. The high percentage (63.2) of illegitimate births to the total number registered in Kingston contributes in some measure to the high rate of infant mortality. The general prevalence of syphilis all over the island is again referred to, and the reintroduction of the Contagious Diseases Acts is urged as the only remedy for checking the spread of the disease. At the Public Hospital at Kingston 3,359 in-patients were treated during the year, with a mortality of 9.02 per cent. The average number of beds occupied was 200, and the expenditure about £8,324. From the report of the Victoria Jubilee Lying-In Hospital it appeared that 444 patients were admitted; 78 only were married women. Ten deaths occurred, 8 being due to puerperal convulsions. The report of the Lunatic Asylum shows an increase in the number of patients, and the general health of the inmates was not so good, several having died from dysentery and diarrhœa, and 2 from yellow fever. At the Leper's Home, on the contrary, the general health was much better, and the death-rate much lower than in former years. There were 145 cases under treatment, and of them 13 died.

A Provisional Committee, under the presidency of Dr. Théophile Roussel, Senator, Member of the French Institute and of the Academy of Medicine, has been formed for the purpose of organising an International Congress of Public Assistance and Private Benevolence, to be held in Paris in 1900.

Influenza in Mexico.—During the months of January and February a very severe epidemic of influenza prevailed in Mexico. More than 35,000 persons have been attacked, and there have been many deaths, particularly among the poorer classes of the population.

MEDICAL NEWS.

Dr. Ronald Daniel recently organised an amateur performance at the Tasso Theatre, Sorrento, in aid of the Sorrento Hospital, and, with the help of many English visitors, was able to hand over a handsome sum to the charity.

Cerebro-Spinal Fever at Omdurman.—Private communications allude to an outbreak of cerebro-spinal fever at Omdurman. The symptoms were somewhat vague at first, but generally consist of pain in the head and back of the neck, with high fever, and retraction of the head. *Post-mortem* examinations have shown acute inflammation of the membranes of the brain and spinal cord. Cases of recovery usually have paralysis of one or more limbs. Up to the early part of February about fifty men had been attacked. The mortality, it is stated, closely approaches 50 per cent.

A further illustration of the need for passing into law of the Bill approved by the Council of the British Medical Association at its last meeting, to give Poor-law medical officers in Scotland the right to appeal to the Local Government Board of Scotland in case of dismissal by parish councils, is afforded by a motion brought forward at a recent meeting of the Medical Committee of the new amalgamated Glasgow Parish. We are informed that on that occasion a motion was made to dismiss the whole of the medical staff, sixteen in number, and advertise the appointments as vacant. We are glad to learn that when the proposal came before the parish council as a whole this extraordinary proposal was rejected by 25 votes to 5.

Edinburgh City Nurses' "At Home."—The Town Council of Edinburgh gave their annual "at home" to the nurses of the City Hospital for Infectious Diseases on March 15th in the music hall and adjacent assembly rooms. The company, to the number of between 500 and 600, was received by Bailie Kinloch Anderson, in the absence abroad of the Lord Provost Mitchell Thoms, the Convener of the Public Health Committee (Bailie Pollard), and several other members of the city corporation. Nurses from over twenty hospitals or nursing institutions in the city and district were present. Dancing, music, cinematographic exhibitions, etc., made the evening from 7.30 till midnight very pleasant and enjoyable. The nurses appeared in their respective uniforms.

Medico-Psychological Association.—The spring meeting of the Northern and Midland Division will be held at the County Asylum, Hatton, near Warwick, on Wednesday, April 12th, 1899. A discussion on "The Nursing Staff in Public Asylums" will be opened by Dr. Macphail, of Derby Borough Asylum. A paper will be read by Dr. Wilcox, Senior Assistant Medical Officer, Hatton Asylum, Warwick, on "Some Cases of Insanity treated by Various Animal Extracts." In order to enable members to see something of Shakespeare's birthplace, it is proposed to have a slip coach attached to the 12.20 train from Snow Hill Station (G.W.Railway), Birmingham, which will go through to Stratford-on-Avon. After spending two hours at Stratford, means will be provided for conveying members to Hatton Asylum in time for the meeting at 4 p.m. Dr. Miller kindly invites members to dine with him at the asylum at 6.30 p.m.

Dinner to Dr. John Wyllie.—The members of Professor Fraser's clinic at Edinburgh entertained Dr. J. Wyllie at dinner on March 16th, when Mr. Arthur Preston presided over a company of between seventy or eighty. Mr. T. Grainger Stewart and Mr. Ramsey Munro acted as croupiers; Dr. Slight and Dr. Gilmour, the resident physicians, were also present as guests. In proposing "The Health of Dr. Wyllie," the Chairman said that at the time when Professor Fraser announced that Dr. Wyllie would discharge his duties he was known to the present generation of medical students only by reputation. They now knew how well earned was that reputation. Personal contact with Dr. Wyllie had endeared him to all who had the fortune to be members of his clinic. Dr. Wyllie, in replying, expressed the pleasure it had been to him to be once again among medical students, whom he delighted to teach and have around him. Professor Fraser's health was proposed by Mr. Bashford. Mr. Munro proposed "The Ward, its Residents, and Nurses," Dr. Slight, Dr. Gilmour, and Mr. Stewart replied. "The Health of the Chairman" was proposed by Dr. Wyllie. Members of the company provided singing and music, and a most enjoyable evening was spent.

The Climatological Laboratory of the University of Mexico.—During the past two years the University of New Mexico has been carrying on a scientific investigation of the climatology of the Mexican plateau, especially with respect to its beneficial effects in cases of tuberculosis and analogous diseases. Statistical information has been collected and special studies in the variation in vital capacity among students in the University and the public schools of the territory have been carried on. The biological and bacteriological departments, under the special direction of President Herrick and Professor Weinzirl, have taken up the study of air and water and the conditions of sepsis, etc. It has been hoped to extend this investigation to include the physical and chemical characteristics of the climate, and also a study of the blood changes due to altitude, with special reference to the virulence and curtailment of the diseases in question. Not long ago Mrs. Walter C. Hadley made to the University a proposal to give the sum of $10,000, to be used towards the erection of a building to contain the laboratories for these and allied researches. The gift is made conditional upon the authorities raising a further sum of $5,000 for the completion of the building and a similar sum for equipment. The Regents have agreed to establish the chair necessary to continue and prosecute the research, and have undertaken to do their best to obtain the supplemental moneys required by the terms of Mrs. Hadley's donation.

MEDICAL VACANCIES.

The following vacancies are announced:—

BELGRAVE HOSPITAL FOR CHILDREN.—House-Surgeon. Appointment for six months. Board and residence provided, and allowance of £5. Applications to the Secretary, 77 and 79, Gloucester Street, S.W., by March 29th.

BIRMINGHAM: GENERAL HOSPITAL.—Two Assistant House-Physicians. Appointments for six months. Residence, board, and lodging provided. Applications to the House Governor by April 1st.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Ophthalmic Surgeon. Applications to the Secretary, Children's Hospital, Steelhouse Lane, Birmingham, by April 5th.

BRACEBRIDGE ASYLUM, Lincolnshire.—Senior Assistant Medical Officer, unmarried, and not over 30 years of age. Salary £50 per annum, with furnished apartments, board, attendance, and washing. Applications to Mr. W. T. Page, jun., Clerk to the Visitors, Bank Street, Lincoln, by April 3rd.

BRIGHTON: SUSSEX COUNTY HOSPITAL.—Fourth Resident Medical Officer, unmarried and under 30 years of age. Salary, £30 per annum, with board, washing and residence. Applications to the Secretary by March 29th.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—House-Surgeon. Board, residence, etc., provided. Applications to the Secretary by April 10th.

CHARING CROSS HOSPITAL, W.C.—Resident Medical Officer. Salary, £100 per annum, with board and residence. Applications to the Secretary by March 27th.

CHELTENHAM GENERAL HOSPITAL.—Assistant House-Surgeon; unmarried. Salary, £40 per annum, with board and lodging. Applications to the Honorary Secretary by April 8th.

CHESTER COUNTY ASYLUM.—Junior Assistant Medical Officer, unmarried, and not more than 30 years of age. Salary, £120 per annum, rising to £150; also Pathologist. Salary, £150 per annum. Board, lodging, and washing provided in each case. Applications to Dr. Lawrence, County Asylum, Chester, by April 12th.

CHORLTON-UPON-MEDLOCK DISPENSARY, Manchester.—Resident House-Surgeon; unmarried. Salary, £100 per annum, with furnished rooms and attendance. Applications to the Secretary by March 29th.

DERBY COUNTY ASYLUM.—Assistant Medical Officer. Salary, £100 per annum, rising to £120, with board, lodging, and washing. Applications to Mr. B. Scott Currey, St. Michael's Churchyard, Derby, by March 30th.

EAST LONDON HOSPITAL FOR CHILDREN, SHADWELL, E.—Medical Officer for the Casualty Department. Appointment for six months but renewable. Salary at the rate of £100 per annum. Applications to the Secretary by April 15th.

FOLKESTONE: VICTORIA HOSPITAL.—House-Surgeon. Salary, £80 per annum, rising to £100, with board, residence, and washing. Applications to the Secretary by April 8th.

GLASGOW EYE INFIRMARY.—Resident Assistant House-Surgeon. Salary, £50, with apartments and board. Applications to the Secretary, 88, West Regent Street, Glasgow, by March 28th.

HOLBEACH UNION.—District Medical Officer and Public Vaccinator. Salary, £50, and usual fees. Applications to the Clerk to the Guardians by April 5th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Resident House-Physicians. Applications to the Secretary by March 29th.

HOSPITAL FOR WOMEN, Soho Square, W.—Assistant Physician. Applications to the Secretary by April 6th.

ISLE OF MAN LUNATIC ASYLUM.—Assistant Medical Officer. Salary, £100, with laundry and board. Applications to Dr. Richardson, Lunatic Asylum, Isle of Man.

LEICESTER INFIRMARY.—Assistant House-Surgeon. Appointment for twelve months subject to re-election. Honorarium, £42. Board, residence, and washing provided. Applications to the Secretary, 24, Friar Lane, Leicester, by April 10th.

LIVERPOOL INFIRMARY FOR CHILDREN.—Assistant House-Surgeon. Appointment for six months. Salary, £25, with board and lodging. Applications to the Honorary Secretary by March 31st.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Assistant Resident Medical Officer. Appointment for six months. Residence, board, and washing provided, and honorarium of £5 5s. Applications to the Secretary by March 28th.

NORTH LONDON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Junior Non-resident Medical Officer. Appointment for six months. Honorarium at the rate of £45 per annum. Applications to the Secretary, 41, Fitzroy Square, W., by April 6th.

NORTH RIDING ASYLUM, Clifton, York.—Junior Assistant Medical Officer. Salary, £100 per annum rising to £150, with board, lodging, washing, and attendance. Applications to the Medical Superintendent.

NORTH-WEST LONDON HOSPITAL, Kentish Town Road, N.W.—Honorary Anaesthetist. Applications to the Secretary by April 3rd.

PADDINGTON GREEN CHILDREN'S HOSPITAL, W.—House-Surgeon. Appointment for six months. Salary at the rate of £50 a year, with board and residence. Applications to the secretary by April 8th.

ROXBURGH DISTRICT ASYLUM, Melrose, N.B.—Assistant Medical Officer. Salary, £100 per annum, with furnished quarters, board, washing, and attendance. Applications to the Medical Superintendent.

ROYAL EYE HOSPITAL, Southwark, S.E.—Assistant Surgeon. Applications to the Secretary by April 4th.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN, Waterloo Bridge Road, S.E.—Surgeon to In-patients and Assistant Surgeon to Out-patients. Must be F.R.C.S.Eng. Applications to the Secretary by March 30th.

ROYAL PIMLICO DISPENSARY.—Attending Medical Officer: must reside in the district. Applications to the Secretary, 104, Buckingham Palace Road, by April 3rd.

ST. LEONARD, SHOREDITCH.—Second Assistant Medical Officer for the Infirmary. Appointment for six months. Salary at the rate of £70 per annum, with rations, washing, and furnished apartments. Applications on forms provided to the Clerk to the Guardians, 213, Kingsland Road, N.E., by March 27th.

ST. PANCRAS WORKHOUSE.—Assistant Medical Officer. Salary, £120 for the first year and £135 for the second. Residential allowances (for a single man), and paid substitute during annual leave. Applications, on forms provided, to be sent to the Clerk to the Guardians, Vestry Hall, Pancras Road, N.W., before March 28th.

SALISBURY: FISHERTON ASYLUM.—Assistant Medical Officer. Salary to commence £100 per annum, with board, lodging, and washing. Applications to Dr. Finch, The Asylum, Salisbury.

STOCKPORT INFIRMARY.—Assistant House- and Visiting-Surgeon. Salary, £70 per annum; also a Junior Assistant House-Surgeon. Salary, £2 per mensem. Board, washing, and residence provided in each case. Applications to the Secretary by April 3rd.

STOKE-UPON-TRENT UNION.—Resident Medical Officer of the Workhouse. Salary, £100 for the first year, £110 for the second, and £120 for the third, with board, washing, and furnished apartments. Applications to the Clerk to the Guardians by April 7th.

WESTMINSTER HOSPITAL, Broad Sanctuary, S.W.—Resident Obstetric Assistant. Board and lodging provided. Applications to the secretary by March 20th.

MEDICAL APPOINTMENTS.

ARKWRIGHT, J. A., M.D.Camb., B.C., appointed Medical Officer for the Halesowen District of the Stourbridge Union.

BROWNE, B. S., L.R.C.P., L.R.C.S.Edin., appointed Medical Officer and Public Vaccinator of the Workhouse and Alcester District of the Alcester Union.

BURT, W. C., M.R.C.S., L.R.C.P., appointed Medical Officer of the Torrington Union Workhouse.

CAVE, Edward J., M.D.Lond., M.R.C.P.Lond., appointed Physician to the Royal United Hospital, Bath, *vice* Dr. Fox, appointed Consulting Physician.

COLES, A. C., M.D., appointed Medical Officer of Health to the Winton Urban District Council.

DEJERSEY, E. F. L., M.B., Ch.B.Glasg., L.R.C.P.& S.E., L.F.P.S.G., appointed House-Surgeon to the Morpeth Dispensary.

DUN, Robert Craig, M.B., C.M., B.Sc.Edin., M.R.C.S.Eng., L.R.C.P.Lond., appointed Honorary Surgeon to the Liverpool Infirmary for Children.

FULLERTON, Robert, M.D.Edin., appointed Honorary Consulting Surgeon on Diseases of the Throat, Ear, and Nose at the Greenock Infirmary.

HECTOR, C. Monro, M.D.Edin., appointed Demonstrator of Bacteriology, the University College, Sheffield.

HORDER, Thomas J., M.B.Lond., M.R.C.P., appointed Casualty Physician to St. Bartholomew's Hospital.

MACKENZIE, D. J., M.D.Aberd., reappointed Medical Officer of Health to the Glossop Dale Rural District Council.

MUSSON, A. W., B.A.Camb., M.B., B.C., appointed Medical Officer for the Workhouse of the Clitheroe Union.

POTTER, B. E., L.R.C.P.Lond., M.R.C.S.Eng., appointed Resident Medical Officer to the St. George Hanover Square Dispensary.

ROBERTS, E. B., L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg., appointed Medical Officer for the Hawarden District of the Hawarden Union.

THOMAS, J. Tubb, L.R.C.P., L.R.C.S., D.P.H., appointed Medical Officer of Health for the County of Wiltshire.

WEIGHTMAN, E. J., M.B., C.M.Edin., appointed Resident Medical Officer of Walton Workhouse of the West Derby Union.

WHITFIELD, Arthur, M.D.Lond., M.R.C.P., appointed Assistant Physician in charge of the Skin Department of King's College Hospital.

DIARY FOR NEXT WEEK.

MONDAY.

Medical Society of London, 8.30 P.M.—Dr. R. Maguire: Death from Functional Nervous Disease. Dr. H. L. Barnard: Certain Points in the Pathology of the Pericardium.

Royal Institute of Public Health, 20, Hanover Square, W., 8.30 P.M.—Mr. W. J. Dibdin: On Sewage Disposal.

TUESDAY.

Royal Medical and Chirurgical Society, 8.30 P.M.—Mr. Reginald Harrison: Two cases where Multiple Calculi were removed from Large Narrow-necked Sacculi connected with the Male Urinary Bladder.—Dr. C. T. Williams and Dr. H. Horrocks: On the Treatment of Pulmonary Tuberculosis by Antituberculous Serum.

WEDNESDAY.

Evelina Hospital, S.E., 4.30 P.M.—Mr. W. Edmunds: Clinical Demonstration on Surgical Cases. Post-Graduate Course.

THURSDAY.

London Temperance Hospital, 2 P.M.—Dr. Soltau Fenwick: Clinical and Pathological Demonstration to Senior Students.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in post office order or stamps with the notice not later than Wednesday morning in order to insure insertion in the current issue.

BIRTHS.

HARPER.—On March 18th, at 25, Rosary Gardens, South Kensington, S.W., the wife of James Harper, M.D., of a son.

D'ABREU.—On March 21st, at Rugby House, Holyhead Road, Handsworth, the wife of John F. D'Abreu, L.R.C.P., etc. of a daughter.

MARRIAGE.

HOWDEN—SCOTT.—On March 15th, Benwell Parish Church, Newcastle-on-Tyne, by the Very Rev. the Dean of Durham, D.D., assisted by the Rev. John Robertson, M.A., Robert Howden, M.A., M.B., Professor of Anatomy in the University of Durham, to Gertrude Mary, daughter of the late Alderman John O. Scott, J.P., and Mrs. Scott, of The Cottage, Benwell, Newcastle-upon-Tyne. At home, 24, Burdon Terrace, Newcastle-upon-Tyne, April 12th, 13th, and 14th.

HOURS OF ATTENDANCE AND OPERATION DAYS AT THE LONDON HOSPITALS.

CANCER, Brompton (Free). *Attendances.*—Daily, 2. *Operations.*—Tu. W. F., 2.

CENTRAL LONDON OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily.

CENTRAL LONDON THROAT, NOSE, AND EAR. *Attendances.*—M. W. Th. S., 2; Tu. F., 5. *Operations.*—I.p., Tu., 2.30; o.p., F., 2.

CHARING CROSS. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.45; Dental, M., 9; Throat and Ear, F., 9.30. *Operations.*—Th. F. S., 3.

CHELSEA HOSPITAL FOR WOMEN. *Attendances.*—Daily, 1.30. *Operations.*—M. Th. F., 2.

CITY ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—M., 4.

EAST LONDON HOSPITAL FOR CHILDREN. *Operations.*—M. W. Th. F., 2.

GREAT NORTHERN CENTRAL. *Attendances.*—Medical and Surgical, M. Tu. W. Th. F., 2.30; Obstetric, W., 2.30; Eye, M. Th., 2.30; Throat and Ear, Tu. F., 2.30; Skin, W., 2.30; Dental, W., 2. *Operations.*—M. W. Th. F.

GUY'S. *Attendances.*—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu., 1; Skin, Tu., 1; Dental, daily, 9; Throat, F., 1. *Operations.*—Tu. F., 1.30; (Ophthalmic), M., 1.30; Th., 2.

HOSPITAL FOR WOMEN, Soho. *Attendances.*—Daily, 10. *Operations.*—M. Th., 2.

KING'S COLLEGE. *Attendances.*—Medical and Surgical, daily, 2; Obstetric, daily, 2; o.p., daily, 1.30; Eye, M. W. Th., 1.30; Ear, Th., 2.30; Throat, M., 1.30; F., 2; Dental, M. Th., 10; Skin, W., 1.30. *Operations.*—W. Th. F., 2.

LONDON. *Attendances.*—Medical, daily, i.p., 2; o.p., 1.30; Surgical, daily, 1.30 and 2; Obstetric, M. Tu. Th. F., 2; o.p., W. S., 1.30; Eye, Tu. S., 9; Ear, W., 9; Skin, Th., 9; Dental, Tu., 9. *Operations.*—Daily, 2.

LONDON TEMPERANCE. *Attendances.*—Medical, M. Tu. W. Th. F., 1.30; Surgical, M. Th., 1.30. *Operations.*—M. Th., 4.30.

LONDON THROAT, Great Portland Street. *Attendances.*—Daily, 2; Tu. F., 6. *Operations.*—Daily, 2.

METROPOLITAN. *Attendances.*—Medical and Surgical, daily, 2; S., 9; Obstetric, W., 2; Eye, W., 2; Throat and Ear, Th., 2; Dental, Tu. Th. S., 9. *Operations.*—Tu. W., 2.30; Th., 4.

MIDDLESEX. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th., 1.30; o.p., M., 9; W., 1.30; Eye, Tu. F., 9; Ear and Throat, Tu. F., 9; Skin, Tu., 4; Th., 9.30; Dental, M. F., 9.30; W., 9. *Operations.*—Daily, 1.30.

NATIONAL ORTHOPÆDIC. *Attendances.*—M. Tu. Th. F., 2. *Operations.*—W., 10.

NEW HOSPITAL FOR WOMEN. *Attendances.*—Daily, 2; Ophthalmic, W. S., 9.30. *Operations.*—Tu. F., 9.

NORTH-WEST LONDON. *Attendances.*—Medical, daily, exc. S., 2; S., 10; Surgical, daily, exc. W., 2; W., 10; Obstetric, W., 2; Eye, W., 9; Skin, F., 2; Dental, F., 9. *Operations.*—Th., 2.30.

ROYAL EAR, Frith Street. *Attendances.*—M. W. F., 3; Tu. F., 9.30 and 7.30. *Operations.*—Tu., 3.

ROYAL EYE, Southwark. *Attendances.*—Daily, 2. *Operations.*—Daily.

ROYAL FREE. *Attendances.*—Medical and Surgical, daily, 2; Diseases of Women, Tu. S., 9; Eye, M. F., 9; Skin, Th., 9; Throat, Nose, and Ear, W., 9. *Operations.*—W. S., 2; (Ophthalmic), M. F., 10.30; (Diseases of Women), S., 9.

ROYAL LONDON OPHTHALMIC. *Attendances.*—Daily, 9. *Operations.*—Daily, 10.

ROYAL ORTHOPÆDIC. *Attendances.*—Daily, 2. *Operations.*—M., 2.

ROYAL WESTMINSTER OPHTHALMIC. *Attendances.*—Daily, 1. *Operations.*—Daily, 2.

ST. BARTHOLOMEW'S. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. W. F., 2; o.p., W. S., 9; Eye, M. Tu. W. Th. S., 2; o.p., M. Th., 9; W. S., 2.30; Ear, Tu. F., 2; Skin, Tu., 9; Larynx, Tu. F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9; Electrical, M. Tu. Th. F., 1.30. *Operations.*—Daily, 1.30; (Ophthalmic), Tu. F., 2; Abdominal Section for Ovariotomy, F., 2.

ST. GEORGE'S. *Attendances.*—Medical and Surgical, daily; i.p., 1; o.p., 12; Obstetric, i.p., Tu. F., 1.45; o.p., M. Tu., 2.30; Eye, W. S., 1.30; Ear, Tu., 2; Skin, W., 2.45; Throat, F., 2; Orthopædic, F., 12; Dental, M. Tu. F., S., 12. *Operations.*—Daily, 1; Ophthalmic, M., 1; Dental, Th., 9.

ST. MARK'S. *Attendances.*—Fistula and Diseases of the Rectum, males, S., 2; females, W., 9.30. *Operations.*—M., 9; Tu., 2.30.

ST. MARY'S. *Attendances.*—Medical and Surgical, daily, 1.45; o.p., 12.45; Obstetric, Tu. F., 1.45; o.p., M. Th., 1; Eye, Tu. F., 9; Ear, M. Th., 9; Throat, Tu. F., 3; Skin, M. Th., 9; Dental, W. S., 9; Electro-Therapeutics, M. Th., 2.30; Children's Medical, Tu. F., 9. *Operations.*—M., 2.30; Tu. W. F., 2; Th., 2.30; S., 10; (Ophthalmic), F., 10.

ST. PETER'S. *Attendances.*—M., 2 and 5; Tu., 2; W., 5; Th., 2; F. (Women and Children), 2; S., 4. *Operations.*—W. F., 2.

ST. THOMAS'S. *Attendances.*—Medical and Surgical, M. Tu. Th. F., 2; o.p., daily, 1.30; Obstetric, Tu. F., 2; o.p., W. S., 1.30; Eye, Tu. F. 2; o.p., daily, exc. S., 1.30; Ear, M., 1.30; Skin, F., 1.30; Throat, Th., 1.30; Children, S., 1.30; Electro-therapeutics, o.p., Th., 2; Mental Diseases, o.p., Th., 10; Dental, Tu. F., 10. *Operations.*—M. W. Th. S., 2; Tu. F., 3.30; (Ophthalmic), Th., 2; (Gynæcological), Th., 2.

SAMARITAN FREE FOR WOMEN AND CHILDREN. *Attendances.*—Daily, 1.30. *Operations.*—Gynæcological, M., 2; W., 2.30.

THROAT, Golden Square. *Attendances.*—Daily, 1.30; Tu. F., 6.30. *Operations.*—Daily, exc. M., 10.

UNIVERSITY COLLEGE. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetrics, M. F., 1.30; Eye, M. W., 1.30; Ear, M. Th., 9; Skin, Tu. F., 2; Throat, M. Th., 9; Dental, Tu. F., 9.30. *Operations.*—Tu. W. Th., 2.

WEST LONDON. *Attendances.*—Medical and Surgical, daily, 2; Dental, Tu. F., 9.30; Eye, Tu. Th., 2; Ear, Tu., 2; S., 10; Orthopædic, W., 2; Diseases of Women, W. S., 2; Electric, M. Th., 2; Skin, M. F., 2; Throat and Nose, Tu., 2; S., 10. *Operations.*—Daily, about 2.30; F., 10.

WESTMINSTER. *Attendances.*—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, Tu. F., 9.30; Ear, Tu., 1.30; Skin, W., 1.30; Dental, W. S., 9.15. *Operations.*—M. Tu. W., 2.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN MIDDAY ON WEDNESDAY. TELEGRAMS CAN BE RECEIVED ON THURSDAY MORNING.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 1, Agar Street, Strand, W.C., London; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

ORIGINAL ARTICLES and **LETTERS** *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone, unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Manager, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

IN order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the MANAGER of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are directed will be found under their respective headings.*

QUERIES.

J. S. asks for advice with regard to the climate of Brighton in its relation to dyspepsia. Is it good or bad, and, if the latter, what is the factor?

M.D. wishes to hear of a small book dealing with the subject of medical partnerships.

Small-pox Hospitals.

M.O.H. asks for any information in reference to any injunction that may have been obtained by private individuals or otherwise in the case of the erection of small-pox hospitals by local authorities, and with special reference to the danger of aërial infection or the alleged damage to adjoining property.

ANSWERS.

Mussels.—We advise our correspondent to request that his name should be removed from the advertisements of the Lodge.

Dr. J. C. Reeve.—We have received from various correspondents a number of similar letters. Nothing is known as to the personality of the writer.

C. E. P.—We regret that, in view of the very numerous demands on our space, the suggestion which our correspondent makes is found to be impracticable.

G. H.—We do not see that there could be any objection to a dispenser who is duly registered as a dentist performing dental operations in the surgery of the medical man who employs him as a dispenser.

Gladiator.—Particulars as to medical practice in Canada will be found in the British Medical Journal of August 27th, 1898, p. 570. *A Medical and Surgical Directory* of the United States and Canada is published annually by Messrs. J. B. Flint and Co., of New York.

Oculens.—(1) The vulcanised pad should be sewn inside the patient's boot beneath the instep, and should be bevelled to fit the foot at that spot. (2) The case is a difficult one, and the patient should be advised to consult an aural surgeon.

Capt. I.M.S.—Some few years ago someone started the idea that the haircurlers mentioned injured the sight, and as a result surgeons both at the hospitals and in private were asked by everyone what substitute could be found. So far as we are aware, however, there is no foundation for the suggestion.

G. H. B.—We consider that the practice of giving courses of ambulance lectures without fee is open to many objections, and that it is far better to make a stated charge, which might be fixed in relation to the fee usually made by the St. John Ambulance Association for similar lectures.

Anxious Inquirer.—Various methods of embalming were described in the British Medical Journal of May 28th, 1898, p. 1403. In the *Edinburgh Medical Journal* of September, 1890 (vol. xxxvi. p. 297), the late Sir John Struthers described a method of embalming for which he claimed the advantages of efficiency, simplicity, and cheapness.

Falcon.—At present a medical man holding British qualifications is allowed to practise in Italy, but only among his own countrymen. An attempt is being made by a section of the Italian profession to make the possession of an Italian licence compulsory on foreigners as a condition of medical practice of any kind in Italy.

M.B.—There is nothing unprofessional or contrary to any rule of ethics in attending patients on a fair contract system. It would be impossible to say what would be a reasonable charge unless all the circumstances of the particular patient were known, and our correspondent would be better able to arrange this for himself. The basis on which it should be assessed would be the wage earnings of the patient, or as suggested, the wages earned by the entire family.

R.C.P.—Presuming that a "livery" patient requires the action of sulphated alkaline waters, Carlsbad would be the best health resort, and its hotels open in the middle of April. The waters are accessible earlier, but the accommodation before the middle of April is limited. Aix-la-Chapelle, with its sulphur and saline waters, exercises a good influence in liver affections, though it is principally used for syphilis. It is open all the year round, and with its pleasant promenades and drives, might suit R. C. P.'s purposes. Few foreign health resorts open before May.

Sanatoria for the Open-air Treatment of Phthisis.

W. D. and E. W. J. will find particulars in the British Medical Journal of January 28th, 1899, p. 247, and February 4th, 1899, p. 324.

F. V.—Some information will be found in the British Medical Journal of September 3rd, 1898, p. 667; October 29th, 1898, p. 1383; November 19th, 1898, p. 1599; January 28th, 1899, p. 247; and February 4th, 1899, p. 324.

Books on Stammering.

Q.—Our correspondent might consult either of the following pamphlets: *Stammering: Its Nature and Treatment*, by Emil Behnke. London: Fisher Unwin, 1893, 1s. *Stammering, Stuttering, and other Speech Affections*, by W. Abbotts, M.D., etc. (London: Savoy Press, 1898, 1s.) The more scientific account of the matter is to be found in the chapter on the Treatment of Stammering in the large book on *Disorders of Speech*, by John Wyllie, M.D. (Edinburgh: Oliver and Boyd, 1895, 18s.)

The Cockade.

V. D.—In the British Medical Journal of January 12th, 1895, p. 113, Mr. G. Ambrose Lee (Bluemantle), of Herald's College, stated that the opinion given by that College is that the privilege appertains and is confined to the naval and military services, including the militia, yeomanry, and volunteers, but that every officer, whatever his rank, as long as he holds Her Majesty's commission, has a right to mount, in the person of his servant, a cockade. The reply evidently alludes to the military cockade only. The civil cockade may be worn by all magistrates placed on the Commission of the Peace by the Lord Chancellor. It is an open question at present whether those who are magistrates by virtue of their being chairmen of district councils, and thus magistrates by Act of Parliament, are entitled to use the cockade during their term of office.

Mortality of Childbed.

J.D.L.—We may refer our correspondent to a paper on Pregnancy to Relation to Life Assurance contributed to the Section of Medicine at the annual meeting of the British Medical Association at Edinburgh, by Dr. John Playfair and Mr. T. Wallace. The paper, together with a discussion on it, will be found in the British Medical Journal of September 17th, 1898, pages 766-769. The mortality of 25,308 cases of labour attended by the Guy's Hospital Lying-in Charity was recorded by Dr. Horrocks as 3 4 per 1,000 for the ten years, 1875 to 1885. Statistics of the death-rate for primiparæ are difficult to obtain.

The Treatment of Dandruff.

C. B. writes: In answer to "Sapoo," the following method might prove effectual if it has not been already tried: (1) Disinfect the scalp thoroughly with 1 in 2,000 mercury perchloride for, say, three days. (2) Then use sulphur, which is so useful in all sebaceous affections, and combine with it an antiseptic, as: ℞ Sulph. precip. gr. xv; acid. carbol. mxv; vaseline ℥j, and add some scent if desired, such as oil of lavender or bergamot. When this has been used for a week or two the scent usually disappears and the condition of the hair is improved. (3) All brushes, combs, hat-linings, etc., should receive antiseptic treatment. (4) Washing with the perchloride and the use of the ointment should be repeated from time to time, say once a week.

Canvassing.

M.D. writes: A firm of surgeons in this locality hold an appointment of medical officers to the Manchester and London Assurance Company. The canvassers of this company proceed from house to house to obtain members. I hear the premium is from 2½d. a week, of which their doctor gets 1s. a quarter. This might not be so reprehensible in the slums, but surely there is no excuse for anything of the kind in a residential district.

F. W. D. McG. writes: Why does not the British Medical Council do something with reference to the medical aid and canvassing, so as to strengthen the hands of the General Medical Council to get them to put a stop to this constant sweating of the profession?

⁂ Our correspondents refer to a subject which has engaged the attention of the Council of the Association. The Council has expressed itself decidedly against those medical aid associations which canvass, and is prepared to consider specific complaints properly supported by evidence against any member of the Association who employs canvassers for patients, or is an officer of a medical association which does so. The Council has endeavoured to organise throughout the Association ethical committees to take cognisance of such breaches of professional good conduct. There is no reason to doubt the intention of the Council to back up the action of such ethical committees in endeavouring to enforce upon members of the Association conformity with the rules laid down; but the Council is not the body in which complaints of this sort should be initiated, and it is not the business of the Council to seek for evidence and to be at once the prosecutor and judge of the conduct of members. The Council has done its best to provide the machinery, and will when called upon play its part, but it remains for members to do their share towards bringing offenders to book.

NOTES, LETTERS, Etc.

Reichardt Fund.

Dr. G. H. Savage (3, Henrietta Street, Cavendish Square, W.) writes to acknowledge the following further subscriptions to this fund:

	£	s.	d.
F. Niel Gandin	2	2	0
O. W. Berry	1	1	0

Erratum.—In the list of subscriptions to the Kanthack Memorial Fund published last weeks, the name of Dr. McCook Weir appeared as Dr. McWeir.

The Lord Chancellor's Logic.

T.A.P. writes: The Lord Chancellor is reported in your columns to have said in his reply to the deputation on incipient insanity: "If people disobeyed the law, that seemed to him to be a reason for making the law more stringent. The law of larceny would not be abolished because, notwithstanding all laws against larceny, people still stole. Such a line of legislation could not be followed." This is surely a line of argument more plausible than logical. A failure to comply with the requirements of the lunacy law is compared with a disregard of the law of larceny. In breaking the larceny law a man breaks a fundamental moral law. In breaking the lunacy law a man commits an offence which the law itself has created, and in which the moral sense is not violated. The plea that disregard for the law of larceny should be a reason not for relaxing or modifying the law but for making it more stringent, is valid simply because the law of the land is in that case one which enforces an elementary moral obligation. The lunacy law, on the other hand, lays down a particular method of procedure, not right or wrong in itself, but carrying with it certain inconveniences which lead people to evade it. This evasion naturally suggests the desirability of modifying that method, which is thus proved to be an inefficient means of securing the end of law. The plea that such evasion of the lunacy law is a ground for greater stringency can only be valid when it is proved that the requirements of the lunacy law are of a nature as essentially moral as the command-ment, "Thou shalt not steal." This the Lord Chancellor's argument assumes.

But if this high ground is to be taken with regard to the lunacy law, why not also with regard to the vaccination law? This law, too, was evaded by a section of the public. The Government of which the Lord Chancellor is a member did not consider that a reason for making it more stringent, but for making numerous modifications and concessions, including a so-called "conscience clause." One is tempted to ask (*en passant*) why a conscience clause should not be inserted in the larceny law?

The real reason why one principle is applied to the lunacy law and its opposite to the vaccination law is to be found in the Lord Chancellor's words: "He could not agree with anything that would tend to diminish the safeguards of the liberty of the subject." The liberty of the subject is the fetish of British legislators. For fear of touching it incipient lunatics may be allowed to go stark mad. Equally, for fear of seeming to touch it, the fads of antivaccinationists must be respected and our magistrates empowered to grant licences to contract and spread small-pox.

INHALATION OF FORMALIN: THE TREATMENT OF TUBERCULOSIS.

MR. J. LARDNER GREEN (Salisbury) writes: I have read with great interest Dr. Murrell's report on the Action of Volatile Substances on the Growth of the Bacillus Tuberculosis and in the Treatment of Phthisis. It is very satisfactory to know that the pursuit of this subject has been so thoroughly followed up, as I have for some years past investigated this line of treatment, and published in the BRITISH MEDICAL JOURNAL of November, 1896, my short memorandum on Inhalation of Formalin in Catarrh and other Diseases of the Respiratory Tract. There I allege that the most rational treatment of phthisis is that of giving a germicidal inhalation of formalin—that is, a 40 per cent. aqueous solution of formaldehyde gas, a few drops of which were sprinkled in a Jeffery's respirator; by this a reduction of the bacillus in the sputum is observed, and in early cases a great improvement and often a recovery results.

From direct personal experience I strongly recommended a trial of formalin, adding of course every subsidiary aid—for example, tonic medicine, careful dieting, and every attention to hygienic surroundings should not be omitted.

INCENDIARY MICROBES.

THE cause of the so-called spontaneous outbreaks of fire in stacks remained for ages a sealed mystery. It has remained for the bacteriologist to unravel the cause of these conflagrations. M. Jean de Leverdo, in an article on the subject in *La Nature*, recalls the fact that such combustions, as is well known to farmers, occur most frequently in stacks of insufficiently dried materials. In the presence of moisture the bacteria present in the fodder grow with marvellous rapidity. This growth is accompanied by the generation of heat. At the same time fermentation processes are set up, which transform the material into carbonaceous matter, porous and very light. But the chemical processes are also attended by the liberation of heat, consequently a temperature may be reached which has been estimated at 300°. Owing to the insufficiency of oxygen in the middle of a stack the material consumes without flame, but should a sudden access of oxygen be permitted, oxidation proceeds with greatly accelerated rapidity, the temperature rapidly increases, and the supply of oxygen being sufficient, the whole superheated, highly-combustible mass suddenly bursts into flame. M. de Leverdo states that in order to guard against such a result M. Benesch, an Austrian agriculturist, has invented a long iron prong, with which small quantities of the material in the centre of the stack can be brought to the surface and then examined, and at the same time the temperature of the interior be roughly estimated by touching the prong after leaving it in the centre of the mass for ten minutes.

DERMATITIS CAUSED BY RHUS TOXICODENDRON.

MR. LOUIS E. STEVENSON, M.B., B.C., Cantab. (Temple Sowerby, Penrith) writes: With regard to this interesting case related by Dr. Frank Nicholson in the BRITISH MEDICAL JOURNAL of March 4th, 1899, the following facts may be interesting. The shrub in question belongs to the sumach tribe which is widely spread over the temperate and hotter regions of the globe, but is not represented in Great Britain. The rhus toxicodendron, or poison oak, is a native of North America, and was introduced into this country in A.D. 1640. Like its relation, the rhus vernix, it is poisonous to some people, though in a less degree. Kalm relates that of two sisters one could manage the tree without being affected by its venom, whilst the other felt its exhalations as soon as she came within a yard of it; it had no effect upon him, although he had made many experiments on himself. On one occasion the juice was squirted into his eye without causing any inconvenience; but in another person whose hand he covered over with a thickish layer of the juice, the skin a few hours afterwards became as a piece of tanned leather and peeled off subsequently in scales. The rhus vernix, as I indicated before, is very poisonous to certain individuals, producing severe dermatitis, followed in some instances by pustulation.

PHOSPHATURIA.

DR. ALEX. W. STIRLING, M.D.Edin., D.P.H.Lond. (Atlanta, Georgia) writes: Your correspondent on the subject of Tessier's "phosphatic diabetes," Dr. Owen Snow (BRITISH MEDICAL JOURNAL, February 18th), is, I think, mistaken in concluding that there was any increase in the phosphatic excretion from his patient simply because earthy phosphates were deposited in the urine, and without a quantitative analysis. I have had some correspondence with you on this subject before, when I remarked that in some persons a vegetable diet or alkaline drugs will soon produce this condition, the deposit in my opinion taking place in the kidney, because it not infrequently happens that pyriform gravel may be observed as part of it, probably small casts from the calyces. But then there is by no means of necessity an increase above the normal in the actual quantity of phosphatic excretion; in fact, I am convinced from frequent examination that this is the exception. The deposit means simply that, for some reason frequently associated with dyspepsia, at the time of its formation the renal secretion was too deficient in acidity to keep the phosphates in solution.

LETTERS, COMMUNICATIONS, ETC., have been received from:

A Anxious Enquirer; Messrs. B. Archer and Co., Malvern; A.; Mr. F. E. Atkinson, Settle; Dr. W. Alexander, Portobello. **B** Mr. E. H. Bannister, Belleville, Barbados B.; Mr. A. M. Browne, London; Mr. A. Berrill, Woodford; Mr. B. F. Bashford, Edinburgh; Messrs. Burroughs, Wellcome, and Co., London; Mr. W. L'H. Blenkarne, Worthing; Mr. A. Boyd, Glasgow. **C** Dr. E. J. Cave, Bath; Mr. W. Carter, Great Yarmouth; Dr. J. Curnow, London; L. Cobbett, M.B., Cambridge; T. Carwardine, M.B., Clifton; Dr. C. J. Cooke, Plymouth; C. B.; Mr. R. C. Carr, Newcastle-on-Tyne; Dr. A. E. Cooper, London; Mr. W. H. Crosse, London; Dr. W. C. S. Clapham, Rotherham. **D** "The Dentist," Editor of the, London; Dr. T. Dutton, London; A. B. Dalgetty, M.B., Adampore; J. H. Drysdale, M.B., London; W. Dingan, M.B., Oxford; Dr. F. A. Dixey, Oxford; Mr. W. Drinkwater, Bicester; Mr. G. Dalton, London; Mr. F. Deas, London; Mr. F. de Jersey, Morpeth. **E** W. Edmunds, M.B., London; Sir Peter Eade, M.D., Norwich. **F** Mr. P. J. Foley, London; Falcon; Dr. P. J. Freyer, London; Mr. R. F. Flood, Sutton-on-Trent; T. C. Fox, M.B., London; F. H. S.; A. H. Frere, M.B., Stradbroke; P. C. Fenwick, M.B., Christchurch, N.Z. **G** Dr. P Grocco, Florence; Mr. G. Gresswell, Great Grimsby; Dr. A. E. Giles, London; Mr. G. H. Graham, Storrington; Mr. H. Gurney, Dovercourt; Mr. C. G. Grant, London; Mr. T. A. Goard, Exeter; A. Green, M.B., Gateshead-on-Tyne; O. Grant, M.B., Inverness. **H** Dr. T. J. Horder, London; Dr. W. E. Harker, Newcastle on-Tyne; Mr. W. F. Haslam, Birmingham; Dr. T. B. Hyslop, London; Mr. W. B. Holderness, Windsor; Mr. F. Haydon, London; Dr. T. P. Harvey, St. Leonard's; Mr. W. S. Homan, Thurlow; J. Hitchcock, M.B., Fochabers; Dr. W. S. Hedley, London; Dr. J. Highet, Workington; Dr. C. M. Hector, Corstorphine. **J** J. M.; R Johnson, M.B., London; Justitia; J. S.; E. W. Jones, M.B., Longton (Staffs); J. and C. **K** Mr. S. Kemp, jun., London; W. W. Kennedy, M.B., Beaconsfield; Dr. Y. Kerner, Wehr, Baden. **L** Dr. H. Lorenzo, London; Dr. R. Livi, Rome. **M** Mr. J. Mathew, London; Mr. W. Marriott, London; Messrs. S. Maw, Son, and Thompson, London; Dr. G. D. McReddie, Greenhithe; M.B.; Dr. F. C. H. Muggleton, Beckenham; M.D.,; Mr. F. W. D. McGachen, Brotton: Medical Officer of Health; Member B. M. A.; Mr. R. G. Morton, Birkenhead; Mr. W. L. Muir, Glasgow; Mussels; Mr. E. D. Marriott, Nottingham; Dr. L. W. Marshall, Nottingham; Mr. C. F. Martelli, London; Mr. J. J. Mooney, Manchester; M.O.H. 24 years; A. M. Martin, M.B., Newcastle-on-Tyne; A. Manknell, M.B., Bradford; M. B. A. **N** Dr. B. Nesbitt, Toronto. **O** Dr. A. T. Ozzard, Georgetown, Demerara; Observer; Mr. C. W. O'Connor, Oswestry. **P** A. I. Petyt, M.B., Longton, Lancs.; Dr. T. H. S. Pullin, Sidmouth; Mr. F. J. Pink, London; Public Vaccinator; Mr. H. L. Pearson, Birkenhead. **R** Mr. J. C. Reeve, Dayton, Ohio; Mr. R. Ramsay, Edinburgh; Mr. H. B. Robinson, London; Mr. T. Rhodes, Melbourne; R. W. C.; Dr. R. Richmond, London. **S** Dr. A. W. Stirling, Atlanta (U.S.A.); Dr. E. M. Sympson, Lincoln: Mr. G. Stoker, London; L. E. Stevenson, M.B., Penrith; Mr. T. H. Smith, Reddish; Dr. G. H. Savage, London; Mr. W. E. H. Stewart, London; Mr. N. H. B. Sukhia, Bombay; A. J. B. Squire, M.B., London: Sheffield Medico-Chirurgical Society, the Secretary of the, Sheffield; Service; Dr. J. Smyth, Naas; Mr. W. P. Stocks, Salford; Messrs. Street and Co., London; Dr. A. F. Street, Westgate-on-Sea; Mr. J. Stewart, Clifton. **T** Mr. R. W. Taylor, Bootle; Dr. A. Todd, Monkstown; G. Templeman, M.B., London; Mr. J. H. Townend, Christchurch, N. Z.; Sir H. Thompson, Bart., London; E. C. Thompson, M.B., Omagh. **U** Underpaid, Underranked, and Thankless Office; Undergrad. **V** Dr. H. H. Vernon, Southport; Dr. F. G. Vicars, London. **W** Dr. E. C. Watts, Guisborough; Mr. E. W. Wallis, London; D. S. Wylie, M.B., Manchester; Mr. G. M. Wilcockson, Reading; Sir S. Wilks, Bart., London; W.; Dr. A. Whitfield, London; Dr. D. Walsh, London; Mr. R. Willson, Oxford; Dr. J. Wallace, Greenock; Dr. H. W. Webber, Plymouth; Dr. A. D. Waller, London; Dr. A. A. Warden, Paris; W. C. R. **Y** Dr. R. J. R. Young, Edinburgh; etc.

BOOKS, ETC., RECEIVED.

British Guiana Medical Annual. Edited by W. S. Barnes, M.D., and J. F. S. Fowler, M.B. Tenth year of issue. Georgetown, Demerara: Baldwin and Co. 1898. 5s.

Half a Century of Sanitary Progress and its Results. By H. F. Parsons, M.D. London: Bedford Press. 1899.

Biology, Hygiene, and Hydropathy: an Inquiry into the Cause of Natural Death from Old Age. By Dr. S. Rowbotham, with Supplement by G. D. Hughes, M.I.M.E. London and Manchester: John Heywood: 1s. 6d.

On Retroperitoneal Hernia. By G. A. Moynihan, M.S., F.R.C.S. London: Baillière, Tindall, and Cox. 1899. 7s. 6d.

The Analysis of Food and Drugs. Part II. The Chemical and Biological Analysis of Water. By T. H. Pearmain and C. G. Moor, M.A. London: Baillière, Tindall, and Cox. 1899. 5s.

Elements of Alkaloidal Ætiology. By A. M. Brown, M.D. London: H. Kimpton. 1899. 2s. 6d.

Posological Tables. By W. Craig, M.D., C.M., F.R.S.E. New edition Edinburgh: E. and S. Livingstone. 1899 1s.

The Hunterian Oration. By Sir William MacCormac, Bart., K.C.V.O. London: Smith, Elder, and Co. 1899.

La Volonté dans ses Rapports avec la Responsabilité Pénale. Par Dr. J. Dallemagne. Paris: Masson et Cie. Fr. 3.

La Goutte: I. Essai de Pathogénie Morphologique. Par D. Critzman. Paris: Masson et Cie. Fr. 3.

Constipation and its Modern Treatment. By G. Herschell, M.D. London: Medical Publishing Co. 2s. 6d.

The Administrative Control of Tuberculosis. By Sir Richard Thorne Thorne, K.C.B., F.R.S., etc. London: Baillière, Tindall, and Co. 1899.

An Experimental Research in Surgical Shock. By G. W. Crile, A.M., M.D., Ph.D. Philadelphia and London: J. B. Lippincott Co. 12s. 6d.

Growing Children, their Clothes and Deformity. By E. N. Smith, F.R.C.S., L.R.C.P. London: Smith, Elder and Co. 1899. 6d.

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